IMPLEMENTATION OF NEW URBAN AGENDA

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LIST OF ABBREVIATIONS

3T	:	*Tertinggal, Terdepan, dan Terluar* / Underdeveloped, Frontier, and Outermost Areas
ADEKSI	:	*Asosiasi Dewan Kota Seluruh Indonesia* / Association of Indonesian City Councils
AHU	:	*Administrasi Hukum Umum* / General Legal Administration
APBN	:	*Anggaran Pendapatan dan Belanja Negara* / State Revenue and Expenditure Budget
APEKSI	:	*Asosiasi Pemerintah Kota Seluruh Indonesia* / Association of Indonesian Municipalities
ARI	:	*Acute Respiratory Infection*
ATCS	:	*Area Traffic Control System*
ATENSI LU	:	*Asistensi Rehabilitasi Sosial Lanjut Usia* / Assistance for Social Rehabilitation of the Elderly
Bappenas / Kementerian PPN	:	*Badan Perencanaan Pembangunan Nasional/Kementerian Perencanaan Pembangunan Nasional* / National Development Planning Agency/ Ministry of National Development Planning
BGC	:	*Bangunan Gedung Cerdas* / Smart Building
BGH	:	*Bangunan Gedung Hijau* / Green Building
BIG	:	*Badan Informasi Geospasial* / Geospatial Information Agency
BKPM	:	*Badan Koordinasi Penanaman Modal* / Investment Coordinating Board
BLT	:	*Bantuan Langsung Tunai* / Direct Cash Assistance
BLT-DD	:	*Bantuan Langsung Tunai Dana Desa* / Village Fund Direct Cash Assistance
BLU	:	*Badan Layanan Umum* / Public Service Agency
BMKG	:	*Badan Meteorologi, Klimatologi, dan Geofisika* / Indonesian Agency for Meteorological, Climatological and Geophysics
BNPB	:	*Badan Nasional Penanggulangan Bencana* / National Disaster Management Agency
BNSP	:	*Badan Nasional Sertifikasi Profesi* / National Professional Certification Agency
BOD/COD	:	*Biochemical Oxygen Demand* / Chemical Oxygen Demand
BPBD	:	*Badan Penanggulangan Bencana Daerah* / Regional Disaster Management Agencies
BPJS	:	*Badan Penyelenggara Jaminan Sosial* / Social Security Agency
BPNT	:	*Bantuan Pangan Non-Tunai* / Non-Cash Food Assistance
BPS	:	*Badan Pusat Statistik* / Statistics Indonesia
BRT	:	Bus Rapid Transit
BSPS	:	*Bantuan Stimulan Perumahan Swadaya* / Self-help Housing Stimulant Assistance
BTN	:	*Bank Tabungan Negara* / National Savings Bank
BTS	:	Buy the Service
BUMD	:	*Badan Usaha Milik Daerah* / Regional Owned Enterprises
BPHTB	:	*Bea Perolehan Hak atas Tanah dan Bangunan* / Fees for Acquisition of Land and Building Rights

CPO	:	Crude Palm Oil
CSR	:	Corporate Social Responsibility
DAK	:	*Dana Alokasi Khusus* / Thematic Special Allocation Fund
DAU	:	*Dana Alokasi Umum* / General Allocation Fund
DBH	:	*Dana Bagi Hasil* / Revenue Sharing Fund
DID	:	*Dana Insentif Daerah* / Regional Incentive Fund
DPIS	:	Disaster Preparedness and Prevention Information System
Dekranasda	:	*Dewan Kerajinan Nasional Daerah* / Regional National Craft Council
EBT	:	*Energi Baru dan Terbarukan* / New and Renewable energy
e-TLE	:	Electronic Traffic Law Enforcement
EWS	:	Early Warning System
FGD	:	Focus Group Discussion
FLPP	:	*Fasilitas Likuiditas Pembiayaan Perumahan* / Housing Financing Liquidity Facility
FMC	:	Fixed Mobile Convergent
GBPN	:	Global Buildings Performance Network
GDI		Gender Development Index
GDP	:	Gross Domestic Product
GPI	:	Gender Empowerment Index
GISTARU	:	Geographic Information System *Tata Ruang*
GWh	:	Gigawatt hour
HDI	:	Human Development Index
IAI	:	*Ikatan Arsitek Indonesia* / Indonesian Architects Association
IALI	:	*Ikatan Arsitek Lanskap Indonesia* / Indonesian Landscape Architects Association
IAP	:	*Ikatan Ahli Perencana* / Indonesian Planners Associations
IARKI	:	*Ikatan Ahli Rancang Kota Indonesia* / Indonesian Urban Design Expert Association
ICP		Integrated City Planning
IDI	:	Indonesia Democracy Index
IKB	:	*Indeks Kota Berkelanjutan* / Index of Sustainable Cities
IKD	:	*Indeks Ketahanan Daerah* / Regional Resilience Index
IDG	:	*Indeks Pembangunan Gender* / Gender Development Index
IMB	:	*Izin Mendirikan Bangunan* / Building Construction Permit
IPG	:	*Indeks Pemberdayaan Gender* / Gender Empowerment Measure
IPKD	:	*Indeks Pengelolaan Keuangan Daerah* / Regional Financial Management Index
IPLT	:	*Instalasi Pengolahan Lumpur Tinja* / Sewage Sludge Treatment Plant
IRBI	:	*Indeks Risiko Bencana Indonesia* / Indonesia Disaster Risk Index
IKN	:	*Ibu Kota Negara* / National Capital City
ISPU	:	*Indeks Standar Pencemar Udara* / Air Pollution Standard Index
ITS	:	Intelligent Transport System

Jakstranas	:	*Kebijakan dan Strategi Nasional Pengelolaan Sampah Rumah Tangga dan Sampah Sejenis Sampah Rumah Tangga* / National Policies and Strategies for Domestic Waste and Similar Waste
Jabodetabek	:	Jakarta, Bogor, Depok, Tangerang, Bekasi
JICA	:	Japan International Cooperation Agency
JST	:	Japan Science and Technology Agency
K/L	:	*Kementerian dan Lembaga* / Ministries and Institutions
Kemenhub	:	*Kementerian Perhubungan* / Ministry of Transport
Kemendagri	:	*Kementerian Dalam Negeri* / Ministry of Home Affairs
Kemenparekraf	:	*Kementerian Pariwisata dan Ekonomi Kreatif* / Ministry of Tourism and Creative Economy
Kemen ATR/BPN	:	*Kementerian Agraria dan Tata Ruang/Badan Pertanahan Nasional* / Ministry of Agrarian Affairs and Spatial Planning/National Land Agency
Kemen ESDM	:	*Kementerian Energi dan Sumber Daya Mineral* / Ministry of Energy ang Mineral Resources
KIP	:	*Kartu Indonesia Pintar* / Indonesia Smart Card
KLHK	:	*Kementerian Lingkungan Hidup dan Kehutanan* / Ministry of Environment and Forestry
KKPR	:	*Kesesuaian Kegiatan Pemanfaatan Ruang* / Conformity of Space Utilisation Activities
KOTAKU	:	*Kota Tanpa Kumuh* / Cities without slum
KPIs	:	Key Performance Indicators
KPN	:	*Kebijakan Perkotaan Nasional* / National Urban Policy
KPR	:	*Kredit Pemilikan Rumah* / Home Ownership Loans
KRB	:	*Kajian Risiko Bencana* / Disaster Risk Study
KRT	:	*Kepala Rumah Tangga* / Head of Household
KSN	:	*Kawasan Strategis Nasional* / National Strategic Area
KSPPN	:	*Kebijakan dan Strategi Pembangunan Perkotaan Nasional* / National Urban Development Policy and Strategy
KUR	:	*Kredit Usaha Rakyat* / People's Business Credit
LAKIP	:	*Laporan Akuntabilitas Kinerja Instansi Pemerintah* / Government Agency Performance Accountability Report
LCR/PGR	:	Land Consumption Rate / Population Growth Rate
LFPR	:	Labour Force Participation Rate
LKBB	:	*Lembaga Keuangan Non-Bank* / Non-Bank Financial Institutions
LKPP	:	*Laporan Keuangan Pemerintah Pusat* / Central Government Financial Report
LPG	:	Liquefied Petroleum Gas
LRT	:	Light Rail Transit
MBR	:	*Masyarakat Berpenghasilan Rendah* / Low-Income People
MEWS	:	Meteorological Early Warning System
MRT	:	Mass Rapid Transit
NUP	:	National Urban Policy
NDC	:	Nationally Determined Contribution

NBFIs	:	Non-Bank Financial Institutions
NEET	:	Not in Education, Employment, or Training
NIB	:	*Nomor Induk Berusaha* / Business Identification Numbers
NSUP	:	National Slum Upgrading Project
NSPK	:	*Norma, Standar, Prosedur, dan Kriteria* / Norms, Standards, Procedures, and Criteria
NUA	:	New Urban Agenda
NUF	:	National Urban Forum
OD	:	Open Defecation
ODP	:	Optical Distribution Point
OSS	:	Online Single Submission
OSS-RBA	:	Online Single Submission Risk-Based Approach
OUR	:	Open Unemployment Rate
P2KH	:	*Program Pengembangan Kota Hijau* / Green City Development Program
PAD	:	*Pendapatan Asli Daerah* / Regional Original Revenue
PAMSIMAS	:	*Penyediaan Air Minum dan Sanitasi Berbasis Masyarakat* / Community-based Drinking Water and Sanitation Provision
PBG	:	*Persetujuan Bangunan Gedung* / Building Approval
PBRS	:	*Pembangunan Rumah Baru Swadaya* / Self-help New Housing Construction
Pemda	:	*Pemerintah Daerah* / Local Government
PIP	:	*Program Indonesia Pintar* / Smart Indonesia Programme
PKH	:	*Program Keluarga Harapan* / Family Hope Programme
PKRS	:	*Peningkatan Kualitas Rumah Swadaya* / Self-help House Quality Improvement
PLTS	:	*Pembangkit Listrik Tenaga Surya* / Solar Power Plant
PLTSa	:	*Pembangkit Listrik Tenaga Sampah* / Waste power plant
PLTU	:	*Pembangkit Listrik Tenaga Uap* / Steam Power Plant
PSEs	:	*Pemanfaatan Sistem Elektronik* / Utilisation of Electronic Systems
PSN	:	*Proyek Strategis Nasional* / National Strategic Projects
PSR	:	*Program Sejuta Rumah* / One Million Houses Program
PT PMA	:	*Perseroan Terbatas Penanaman Modal Asing* / Foreign Investment Limited Liability Company
PPDPP	:	*Pusat Pengelolaan Dana Pembiayaan Perumahan* / Centre for Housing Financing Fund Management
PPP	:	Purchasing Power Parity
PTSL	:	*Pendaftaran Tanah Sistematis Lengkap* / Complete Systematic Land Registration
PUPR	:	*Pekerjaan Umum dan Perumahan* / Public Works and Housing
RAD-PRB	:	*Rencana Aksi Daerah Pengurangan Risiko Bencana* / Regional Action Plan for Disaster Risk Reduction
RAKH	:	*Rencana Aksi Kota Hijau* / Green City Action Plans
RAN PD	:	*Rencana Aksi Nasional Penyandang Disabilitas* / Action Plan for Persons with Disabilities
RCBT	:	Regional Climate Budget Tagging

RDTR	:	*Rencana Detail Tata Ruang* / Detailed Spatial Plan
RENAS-PB	:	*Rencana Nasional Penanggulangan Bencana* / National Disaster Management Plan
RISE	:	Revitalising Informal Settlements and their Environments
RKP	:	*Rencana Kawasan Permukiman* / Settlement Area Plan
RLH	:	*Rumah Layak Huni* / Livable House
RMC	:	Raw Material Consumption
RP2P	:	*Rencana Penyelenggaraan Pengelolaan Perkotaan* / Urban Management Implementation Plan
RP3KP	:	*Rencana Pembangunan dan Pengembangan Perumahan dan Kawasan Permukiman* / Housing and Settlement Area Development Plan
RPAM	:	*Rencana Pengamanan Air Minum* / Drinking Water Safety Plan
RPB	:	*Rencana Penanggulangan Bencana* / Disaster Mitigation Plan
RPJM	:	*Rencana Pembangunan Jangka Menengah* / Medium Term Development Plan
RPJP	:	*Rencana Pembangunan Jangka Panjang* / Long-term Development Plan
RST	:	*Rumah Sejahtera Terpadu* / Integrated Prosperity House
RTH	:	*Ruang Terbuka Hijau* / green open space
RTR KSN	:	*Rencana Tata Ruang Kawasan Strategis Nasional* / National Strategic Area Spatial Plan
RTRW	:	*Rencana Tata Ruang Wilayah* / Regional Spatial Plan
RTRWN	:	*Rencana Tata Ruang Wilayah Nasional* / National Spatial Plan
RUEN	:	*Rencana Umum Energi Nasional* / National General Energy Plan
RUS	:	*Rumah Usaha Sederhana* / Simple Businesshouses
SDGs	:	Sustainable Development Goals
SAKIP	:	*Sistem Akuntabilitas Kinerja Instansi Pemerintah* / Government Agency Performance Accountability System
Sarbagita	:	Denpasar, Badung, Gianyar, Tabanan
Sakernas	:	*Survei Angkatan Kerja Nasional* / National Labour Force Survey
SBUM	:	*Subsidi Bantuan Uang Muka* / Down Payment Assistance Subsidy
SHPP	:	*Survei Harga Properti Perumahan* / Survey of Residential Property
SIPSN	:	*Sistem Informasi Pengelolaan Sampah Nasional* / National Waste Management Information System
SKAMRT	:	*Surveilans Kualitas Air Minum Rumah Tangga* / Household Drinking Water Quality Surveillance
SKKL	:	*Sistem Komunikasi Kabel Laut* / Sea Cable Communication System
SMF	:	*Sarana Multigriya Finansial*
SMA	:	*Sekolah Menengah Atas* / Senior High School
SMK	:	*Sekolah Menengah Kejuruan* / Vocational High School
SMP		*Sekolah Menengah Pertama* / Junior High School
SMTC	:	Intelligent Transport Management System

SPALD-T	:	*Sistem Pengelolaan Air Limbah Domestik Terpusat* / Centralized Domestic Wastewater Treatment System
SPAM	:	*Sistem Penyediaan Air Minum* / Drinking Water Supply System
SSB	:	*Subsidi Selisih Bunga* / Interest Difference Subsidy
SSL	:	Standard Sea level
Susenas	:	*Survei Sosial Ekonomi Nasional* / National Socio-Economic Survey
Tapera	:	*Tabungan Perumahan Rakyat* / Public Housing Savings
TDS	:	Total Dissolved Solid
TMY	:	Typical Meteorological Year
TFR	:	Total Fertility Rate
TOD	:	Transit-Oriented Development
TTG	:	*Teknologi Tepat Guna* / Appropriate Technology
UCLG-ASPAC	:	United Cities and Local Governments Asia-Pacific
MSMEs	:	Micro, Small, and Medium Enterprises
PSU	:	*Prasarana Sarana dan Utilitas* / Infrastructure, Facilities and Utilities
PuSGeN	:	*Pusat Studi Gempa Nasional* / Centre for Earthquake Studies
UNCRPD	:	UN Convention on the Rights of Persons with Disabilities
UUPA	:	*Undang-Undang Pokok Agraria* / Basic Agrarian Law
VAT	:	Value Added Tax
WIPO	:	World Intellectual Property Organisation
WSP	:	Water Safety Plan
WHO	:	World Health Organization

Foreword

The Government of the Republic of Indonesia is pleased to present the Second National Report on the implementation of the New Urban Agenda (NUA) in Indonesia. This report was prepared as a manifestation of Indonesia's commitment to sustainable urban development and a reflection on the achievements, challenges, and lessons learned during the 2021-2025 period. Through this report, it is hoped that stakeholders, within the country and abroad, can get a comprehensive picture of Indonesia's contribution to the global urban development agenda.

Between 2021 and 2025, Indonesia is confronted with multifaceted issues, including recovery from the COVID-19 pandemic, rapid urbanisation, regional disparities, and a pressing demand for sustainable infrastructure and affordable housing. This period also coincides with a period of government transition, which provides an opportunity to emphasise the importance of cross-period policies and strategies in sustainable urban development. The Asta Cita, Indonesia's eight national development priorities, are closely linked to NUA's vision and principles in promoting sustainable urban development. In NUA's perspective, urban development does not only seen as a physical and infrastructural process, but also as a key instrument to create social justice, economic prosperity and environmental sustainability. Several aspects of the Asta Cita, such as improving people's quality of life, strengthening connectivity and infrastructure, and developing from the periphery, align with the NUA pillars that emphasize inclusivity, participation, and urban resilience. The elaboration of Asta Cita at the urban level involves reducing spatial inequality, promoting equitable and environmentally sound spatial planning, and providing basic access to essential services such as drinking water, sanitation, decent housing, and public transportation. The synergy between the Asta Cita and NUA is a strategic basis to ensure that the growth of urban areas in Indonesia is not only rapid, but also equitable, resilient to crises, and able to accommodate the needs of all groups of society, including future generations.

The NUA report provides an overview of Indonesia's concrete support for various UN-Habitat *General Assembly* resolutions, such as the transformation of informal settlements, strengthening sustainable urban planning, integrating climate change issues, and conserving biodiversity in spatial planning. All of these resolutions become the foundation for shaping policy direction and conduct real actions at the national level.

Finally, this report does not only serve as an evaluation tool for what has been achieved, as a reflection of the second quarter journey, but also as a strategic foothold for the journey ahead towards achieving the NUA 2036 vision. Hopefully, this report can be considered as a valuable reference and inspire further collaboration among all stakeholders, in creating more liveable cities and settlements for all. With a spirit of collaboration, let us work together to build Indonesian cities that are fair, liveable, crisis-resilient, and sustainable for both current and future generations.

Executive Summary

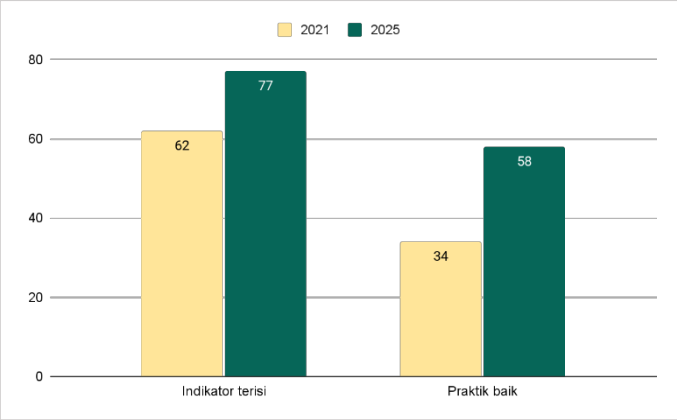
As the national focal point for UN-Habitat related issues, the Ministry of Public Works is responsible for leading the process of preparing this New Urban Agenda (NUA) Implementation report. Secondary data were primarily derived from socio-economic surveys and Sustainable Development Goal achievement reports. However, given the complexity of the indicators in the NUA, there was limited data available from these two sources. Therefore, a broader exploration of data was undertaken, involving various government ministries and agencies, local governments, academics, professional associations, and civil society organisations.

In monitoring the implementation of the NUA, a participatory and inclusive method was employed. This involved conducting a series of focus group discussions (FGDs) with diverse stakeholders to collect insights, define key actor roles, and grasp local dynamics. The process provided a more comprehensive understanding of how the NUA is being implemented across various regions in Indonesia, highlighting both the challenges and opportunities at national and local levels. The collection of best practices and innovations from across the country demonstrates that urban transformation is occurring not only in major cities but also actively in medium and smaller cities. This participatory strategy aims to enhance stakeholders' sense of ownership over the report's data and conclusions, fostering institutional collaboration and ensuring consistent policies to support fair, inclusive, and sustainable urban development.

The preparation of this NUA report encountered several challenges, especially regarding data limitations and restricted access to public information following the restructuring of ministries and agencies. Some necessary data could not be fully obtained, as several indicators listed in the metadata required urban or city-level data aggregation, which is not entirely available within the national statistical system. Despite these limitations in sectoral and spatial data, every effort was made to develop the report as comprehensively as possible, adhering to official UN-Habitat guidelines and emphasizing transparency and an evidence-based approach.

Overview of general achievements

In terms of content structure, this second NUA report demonstrates notable progress compared to the 2021 first-period report. It achieves complete data coverage for all 77 indicators, although 8 indicators still rely on similar proxy data. Adopting a good practice-oriented approach, the report highlights 74 innovative examples from various cities and districts, covering 66 indicators—an increase from the previous report, which featured 38 practices across 28 indicators. These examples include initiatives such as the revitalization of Tebet Eco Park in Jakarta, the use of communal solar energy in Kutai Kartanegara, an integrated sanitation system in Gresik, and the application of geospatial information systems in Bontang. Additionally, the report observes a substantial rise in the allocation of the Thematic Special Allocation Fund (DAK) for slum reduction, both in terms of the number of local governments receiving support and the size of the areas targeted.



NUA Reporting Content Outcomes

The study also provides an update on the performance of 77 NUA indicators, such as improving trends, falling trends, steady circumstances, and missing data. Most of the indicators are improving, such as the increase in green area per capita from 22.6 m² in 2020 to 35.8 m² in 2024. In comparison, there are ten indications that have poorly performed, such as the percentage of public transport use by commuters in Jabodetabek from 21% in 2021 to 19.5% in 2024 and the proportion of municipal waste managed in a controlled manner also decreased from 67.4% in 2021 to 59.88% in 2024. The report also notes that conditions tend to be relatively steady in three indicators.

✓ 1	10	✓ 33	✓ 4	✓ 34	✓ 19	✓ 35	✓ 36	31	32	✓ 38
✓ 37	2	✓ 39	✓ 40	✓ 41	✓ 42	✓ 43	✓ 5	✓ 6	✓ 18	✓ 44
✓ 7	✓ 25	11	8	9	✓✓ 45	✓ 26	✓ 46	12	✓ 47	✓ 20
✓ 15	✓ 48	✓ 49	✓ 50	✓ 51	✓ 30	✓ 3	✓✓ 52	✓ 53	21	✓ 22
✓ 27	✓ 23	✓✓ 54	✓ 55	✓ 56	✓ 57	✓ 58	59	60	61	✓ 16
24	✓ 62	✓ 13	✓ 17	28	29	63	64	✓ 14	65	66
✓ 67	✓ 68	✓ 69	✓ 70	71	72	73	74	✓✓ 75	✓ 76	✓ 77

LEGENDA:

- KONDISI MEMBAIK
- KONDISI MENURUN
- CENDERUNG KONSTAN
- TIDAK TERSEDIA (PROXY)
- DALAM PROSES UPDATE

✓ PRAKTIK BAIK (23 indikator belum terisi)

NUA implementation achievements per indicator

Outcomes per theme

The implementation of NUA in Indonesia has shown significant progress since 2021, although structural and spatial challenges still need to be systematically addressed towards the long-term target of 2036. Amidst the challenges of rapid urbanisation, spatial inequality, and limited regional fiscal capacity, Indonesia has shown strong commitment through strategic policies such as relocating the National Capital City (IKN), agrarian reform, and strengthening the role of regions in urban governance. While inter-agency coordination remains a challenge, policies such as Government Regulation No. 12/2021 and the integration of NUA into the National Medium-Term Development Plan (RPJMN) through the Ministerial Decree of Bappenas represent normative steps towards consolidating the direction of urban development. The

report also calls for increased local funding, integration of integrated information systems, and strengthening local capacity through forums, training, and city-to-city cooperation. In addition, attention to the dynamics of the new administration and the restructuring of ministries reinforces the urgency of strengthening urban governance to be more focused and efficient.

Sustainable Urban Development for Social Inclusion and Poverty Alleviation

In 2021, Indonesia was recovering from the COVID-19 pandemic that caused a spike in the poverty rate to 10.14% and huge pressure on basic services in cities. However, with consistent fiscal, social, and infrastructure development interventions, by 2024 the poverty rate was reduced to 8.57%-the lowest in a decade. If this trend continues, Indonesia has the potential to achieve its extreme poverty eradication target by 2030, in line with the *Sustainable Development Goals* (SDGs) and NUA targets.

However, when referring to the new upper middle income standard, 68.25% of the population is still classified as poor. Disaggregated data shows poverty is higher in rural areas (11.34%) than urban areas (6.66%), with social protection contributing significantly to this decline. Indonesia also encounters the challenge of *an ageing population* with 12% elderly and 20% youth by 2024, and an elderly dependency ratio of 17.08. Most of the elderly are still dependent on family members, but if they remain productive, they have the potential to support the economy.

On the social sector, improvement in the Gender Empowerment Index (GEI) from 75.57 (2020) to 77.62 (2024) and the consistency of the Gender Development Index (GDI) at around 91.85 show a positive direction, although inequality is still evident in the Labour Force Participation Rate (LFPR) between men and women. With the increasing elderly population (12% by 2024) and the *sandwich generation* phenomenon, further strategies are needed to support the productivity and social protection of this group going forward.

In the housing and infrastructure sector, although the occupancy of subsidised houses has reached 93.62% by 2024, challenges remain in assuring the building quality and targeted beneficiaries. Household expenditure is also dominated by housing and energy costs, following a 17% increase in building material prices and 11% increase in house prices over 2019-2024. Indonesia is making steady progress toward the goal of sustainable cities, as reflected in its improved access to safely managed drinking water and sanitation, along with a waste management system that now handles nearly 60% of the country's total waste generation—equivalent to approximately 20.2 million tonnes. In addition, renewable energy use increased to 14.1% of total final energy consumption, up significantly from around 11% in 2021, marking progress towards a clean energy transition in the urban context.

However, significant challenges remain in mobility and land use. Private vehicle use remains dominant, especially in the Greater Jakarta area, where only 19.5% of commuters use public transport in 2023-down from 20.36% in 2019 despite the existence of *Bus Rapid Transit* (BRT) systems in 22 cities. This shows the urgent need to strengthen mass transport systems that are integrated and attractive to the public.

Sustainable and Inclusive Urban Prosperity

The government's key strategy to boost competitiveness, productivity, and market reach in the digital era is the formalisation of MSMEs through e-commerce. One notable initiative is the streamlining of low-risk business licensing, enabling the issuance of a Business Identification Number (NIB) within just 1 hour to 1 day. By the first quarter of 2025, 12.27 million NIBs had been issued via the Online Single Submission (OSS) system, with approximately 99% designated for Micro, Small, and Medium Enterprises (MSMEs) —highlighting their central role in the national economy. In addition, the government aims for the digital economy to

contribute 20% to the GDP by 2045 and is working to elevate Indonesia's digital competitiveness ranking from 51st in 2022 to 20th, reflecting a strong commitment to developing a competitive and inclusive digital ecosystem.

Environmentally Sustainable and Resilient Urban Development

Indonesia's commitment to sustainable development and climate change mitigation is reflected in the construction of energy-efficient flats in Tegal. These buildings use both passive and active design strategies—such as optimizing building orientation, enhancing natural ventilation, and applying energy-saving technologies—to cut energy consumption by up to 30%. This initiative is backed by tools like climate zone maps, Typical Meteorological Year (TMY) data, and frameworks such as the Green Building Regulation (BGH) and its roadmap through 2030. On the fiscal side, the majority of national climate change funding, totaling Rp42.99 trillion, is directed toward adaptation efforts, particularly in sectors like water, food, disaster management, marine resources, forestry, and health. In provinces like South Sulawesi and West Nusa Tenggara, adaptation funds make up over 80% of their climate budgets, largely benefiting agriculture and water resources.

In the urban sector, green city development has continued beyond the conclusion of the Green City Development Program (Program Pengembangan Kota HIjau/P2KH) in 2018. The principles of green cities have been incorporated into broader policies, such as the National Urban Policy (KPN) 2045 and the Cities without slum (Kota Tanpa Kumuh/KOTAKU) programme. The availability of green open space (RTH) per capita increased from an average of 22.6 m² in 2020 to 35.8 m² in 2024, nearing the World Health Organization's recommended minimum of 9 m²/capita and pushing toward the national goal of 30% RTH in city planning. Despite generally low RTH figures nationwide—averaging just 17.5% in 2024—the number of cities meeting the target rose from fewer than 10 in 2021 to 18 in 2024, with cities like Surabaya, Bogor, and Balikpapan standing out due to their sustained environmental management.

On the other hand, there has been progress in increasing the use of recycled materials from 11.69 million tonnes (2020) to 18.17 million tonnes (2023), and the number of cities with *Area Traffic Control System* (ATCS) systems has increased from 49 cities in 2020 to 53 cities in 2024. Population density also continues to increase from 141 people/km² in 2020 to 147 people/km² in 2023, indicating the need for more strategic management of urbanisation.

Effective Implementation

Looking ahead to 2036, Indonesia encounters both the opportunity of a demographic bonus and the risk of increasing urbanisation pressures. If policy direction remains consistent in implementing NUA strategies such as spatial integration, innovative financing, digitalization of governance, and community engagement-then urban transformation can be accelerated. Policies such as the National Urban Policy (Kebijakan Perkotaan Nasional/KPN) 2045, the Sustainable Smart Cities programme, and the integration of NUA indicators in regional sectoral planning are key to ensuring that Indonesia's urban development will be oriented towards spatial equity, environmental sustainability, and social inclusion in the long term.

Linkage of UN-Habitat Assembly Resolutions

Indonesia's NUA Report is an integral part of Indonesia's global commitment to support the implementation of the Sustainable Development Agenda, particularly Sustainable Development Goal (SDG) 11 on inclusive, safe, resilient and sustainable cities and settlements. This report does not stand alone, but is closely linked to various resolutions produced at the UN-Habitat Assembly-the highest body in global urban development governance. Not only does this report serve as a reflection of national achievements in urban

development, it also serves as empirical evidence of support and implementation of various resolutions produced at the UN-Habitat Assembly. Indonesia has actively demonstrated its commitment to the implementation of a number of resolutions related to smart cities, transformation of informal settlements, sustainable urban planning, resilience to climate change, and integration of biodiversity in spatial planning.

One of the key relevant resolutions is *Resolution 2/1 on International Guidelines on People-Centred Smart Cities*, which emphasises the importance of developing smart cities that are people-based, socially inclusive, and able to bridge the digital divide. This is in line with Indonesia's policy direction that emphasises an inclusive *smart city* approach, as evidenced by the expansion of household internet access to 87% and the increase in digital literacy of MSMEs through the issuance of more than 12 million Business Identification Numbers (NIB) online through the *Online Single Submission* (OSS).

Other resolutions, such as *Resolution 1/4 on Achieving Gender Equality through Sustainable Urban Development*, supported by an increase in Indonesia's Gender Empowerment Index (GEI) from 75.57 (2020) to 77.62 (2024), indicating a strengthening of women's role in decision-making in the public and economic sectors. The NUA report also adopts principles from *Resolution 2/3 on Equitable Financing and Effective Implementation of the NUA*, which encourages inclusive financing and progressive monitoring, as reflected in the distribution of local climate change budgets that focus more on adaptation and vulnerable sectors such as water, agriculture, and disaster.

Resolution 2/2: Accelerating the transformation of informal settlements and slums by 2030, received direct support through the implementation of KOTAKU programme targeting more than 300 districts/cities. The programme integrates basic infrastructure improvement, community empowerment, and local institutional capacity building. Since 2021, the scope of the programme has expanded, with more than 42,000 Ha of slum areas being gradually addressed, and slum reduction targeted to reach zero by 2030, in line with global targets.

Resolution 2/8: Urban planning and sustainable infrastructure is reflected in the strengthening of planning instruments such as the Settlement Area Plan (Rencana Kawasan Permukiman/RKP), the preparation of the Green Infrastructure Master Plan, and the Green Building (Bangunan Gedung HIjau/BGH) roadmap until 2030. In practice, the construction of energy-efficient flats in Tegal is an example of integration between passive design, building orientation, natural ventilation, and energy efficiency technology that can reduce consumption by 30%. This shows the transformation of infrastructure development approach from concrete-based to sustainable and environmentally friendly.

Resolution 2/5: Enhancing the interlinkage between urbanisation and climate change resilience is addressed through the national climate change budget allocation of IDR42.99 trillion, mostly for adaptation (88% in the regions). Provinces such as South Sulawesi and West Nusa Tenggara show that strengthening the water and agriculture sectors is a top priority in strengthening area-based climate resilience. The integration of urbanisation and climate resilience is also evident from spatial planning policies that incorporate aspects of disaster risk and flood control.

Resolution 2/9: Creation of a human settlements resilience framework was responded to through the development of a national settlement resilience framework, including the strengthening of disaster early warning systems, infrastructure *resilience*, and ecosystem-based approaches in post-disaster management. For example, in the post-disaster context in Palu and Cianjur, the recovery approach has been directed towards rebuilding safer and more resilient settlements through *risk zoning-based relocation* and geospatial monitoring support.

Resolution 2/4: Biodiverse and resilient cities is realised in the policy of protecting Green Open Space that adopts an ecosystem approach. The national average green space increased from 22.6 m²/capita in 2020 to 35.8 m²/capita in 2024. Cities such as Surabaya, Bogor and Balikpapan are examples of successful integration of ecological functions in urban planning. Riparian restoration programmes, community-based urban parks, and mangrove conservation are also forms of mainstreaming biodiversity in urban management.

By linking these national achievements directly to *UN-Habitat Assembly* resolutions, the NUA Indonesia 2025 report does not stand merely as performance report, but also a strategic roadmap that affirms Indonesia's contribution to the global urban agenda, towards the vision of resilient, inclusive and sustainable *Cities for All* by 2030 and beyond. The report provides strategic guidance towards urban transformation that aligns with global standards and supports long-term agendas such as the National Urban Policy 2045 and Indonesia Emas 2045.

Introduction

Indonesia's New Urban Agenda (NUA) Implementation Report 2025 was prepared as a manifestation of national commitment to the implementation of the sustainable urban development agenda declared at the Habitat III Conference in Quito, Ecuador. This second report is a continuation of the previous NUA report in 2021 which was prepared in the context of recovery from the COVID-19 pandemic and global socio-economic challenges. While the 2021 report highlighted the impact of the pandemic on urban systems and emergency policy adjustments in housing, basic services and livelihoods, the 2025 report marks a phase of consolidation and transition towards solidifying a more inclusive, resilient and sustainable urban transformation. A comparison between the two reports shows significant improvement trends in various development indicators, such as poverty reduction, increased access to basic services, and expansion of green open spaces, although structural challenges such as regional inequality, uncontrolled urbanisation, and the need for innovative financing continue to be faced. Through this report, Indonesia not only reflects on the achievements and challenges over the past four years, but also affirms the national policy direction towards liveable, equitable, and resilient cities in the run-up to 2036 as the medium-term milestone of national urban development.

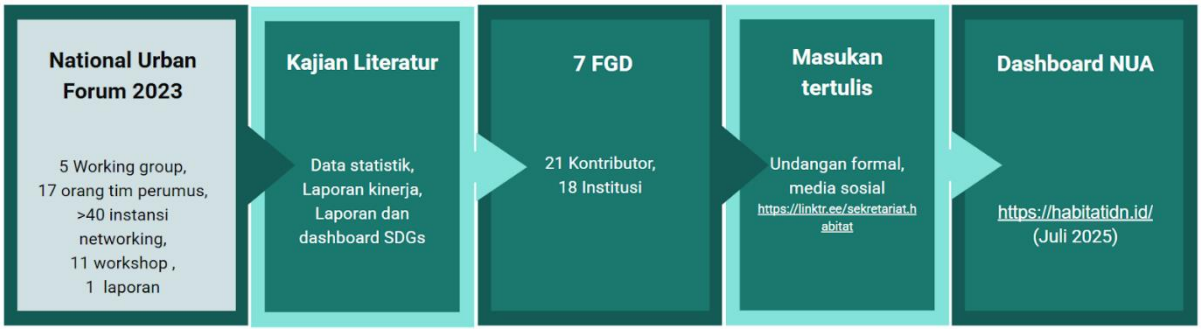
In line with global practice, UN-Habitat recommends NUA reporting to be aligned with established Sustainable Development Goal (SDG) reporting mechanisms. In many countries, the national SDG secretariat is the starting point for NUA reporting. Considering that half of the NUA indicators have a direct link to the SDGs, Ministry of Public Works is actively collaborating with the SDG National Secretariat to ensure policy and data alignment in NUA reporting since the first reporting period in 2021.

The structure of the NUA report follows the indicator and metadata guidelines established by UN-Habitat. The majority of data was obtained from socio-economic surveys and censuses conducted by the Statistics Indonesia (BPS) as well as official reports from the SDG National Secretariat. However, given the complexity and diversity of NUA indicators, not all of them could be accommodated by these data sources. Therefore, the data exploration process was extended to various central and local government agencies, as well as non-government stakeholders such as academics, professional associations and civil society organisations. Most of the secondary data were obtained through official publications, annual reports, and e-books available on the websites of these agencies, while others were collected through formal data requests and focus group activities (FGDs) during the preparation of the report.

The preparation of Indonesia's NUA 2025 report was an open, inclusive, multilevel and transparent process involving a variety of methods and stakeholders. The process included a literature review, analysis of statistical data and references to SDG performance reports and *dashboards*, the organisation of seven FGDs, and the collection of written public feedback. A total of 21 contributors from 18 institutions were directly involved in this process, reinforced by the involvement of more than 40 institutions in the wider network. Along with the submission of NUA reports to UN-Habitat, there will also be an online publication of NUA implementation achievements per indicator through the NUA *dashboard* on the Indonesian habitat secretariat *website*. This is intended as a means of disseminating information to the public in monitoring the achievements of NUA implementation towards 2036.

The series of process for this second period report does not start in early 2025, but stretches back to 2023 with the second National Urban Forum (NUF). The organisation of the NUF event in 2023 became one of the important *milestones* in the implementation of national urban policy and became one of the instruments for implementing NUA and SDGs in Indonesia. With a

number of topics that follow the structure of Habitat III, the NUF was discussed by forming five working groups (WG) through workshops and webinars that were open to the public and compiled into a report. The agenda was designed to tackle urban challenges and promote better coordination and collaboration between the Ministry of Public Works and all relevant stakeholders. The second NUF included a roadmap that serves as a guide for preparing the NUA implementation report. Rather than being a formal report, it focuses on the substance of issues identified through various interactive dialogues. These findings would then inform the stages of planning, execution, and operationalisation, ultimately contributing to future policymaking—particularly in support of achieving the Indonesia Emas 2045 vision.

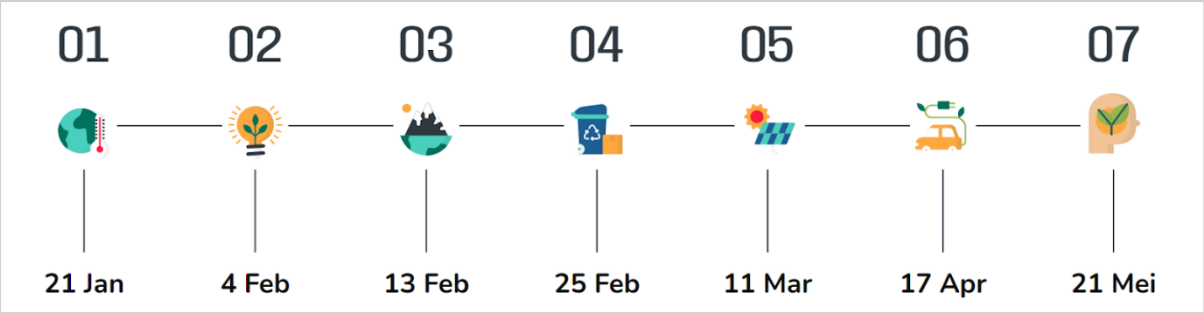


Data Sources and Reporting Process for NUA 2025

The preparation of this report involved broad participation from various parties, ranging from data providers to policy implementers. The initial identification process in the first reporting period found at least 20 relevant *data holders*. However, reflecting on the participatory process of the first reporting period in 2021, the implementation of the NUF in 2023, and in seven rounds of FGDs over five months from January to May 2025, the scope of data holders has significantly expanded to include around 70 units in various ministries as well as local governments from 514 districts/cities and 34 provinces. In these forums, close cooperation has been established with agencies such as the National Development Planning Agency (Bappenas), the Statistics Indonesia (BPS), the Ministry of Home Affairs, the Ministry of Agrarian Affairs and Spatial Planning/National Land Agency (Ministry ATR/BPN), the Ministry of Environment and Forestry (KLHK), the Ministry of Transportation, the Ministry of Energy and Mineral Resources (ESDM), the National Disaster Management Agency (BNPB), and the Meteorology, Climatology and Geophysics Agency (BMKG). Also involved are local government associations such as the Association of Indonesian City Governments (APEKSI) and United Cities and Local Governments Asia-Pacific (UCLG-ASPAC), as well as local authorities from provinces, cities and districts such as the Provincial Government of DKI Jakarta, Bontang municipality, Batam municipality, Gresik Regency municipality and Madiun Regency municipality. Without the participation of all these stakeholders, it would have been impossible to finalise this report.

Starting with the first FGD in January with Seknas SDGs Bappenas, the discussion focused on 46 indicators that intersect with the SDGs. In February, three FGDs were held. The second FGD with STATISTICS INDONESIA, APEKSI, and UCLG-ASPAC focused on Susenas data as a reference source for both NUA and SDGs reports as well as best practices that have been carried out by local governments. The third FGD with the Ministry of ATR, BNPB, and BMKG discussed indicators related to spatial planning, spatial data, and disaster in 23 indicators. The fourth FGD with the Ministry of Environment, Ministry of Energy and Mineral Resources, Gresik District discussed 10 indicators related to air pollution, sanitation and renewable energy. The fifth FGD, in March, invited the Ministry of Home Affairs, Ministry of Communication, and Bontang City, discussing financial performance, ICT and GIS in local government governance, and *broadband* internet services on 12 indicators. The sixth FGD, in April, discussed indicators related to SDG 11, including urban policy, public and *non-motorised* transport, inviting the Ministry of National Development Planning/Bappenas, Ministry of

Transportation and Batam City. The series of FGDs concluded in May by inviting a wider range of stakeholders, including all local governments represented in the good practices book, as a final meeting to consider additional substantive inputs and corrections from relevant agencies on the draft report prior to being finalised and submitted.



Participatory Process for NUA 2025 Reporting

One of the key challenges encountered in this process is the limited access to online data, resulting from changes in nomenclature and organisational structures within several ministries and agencies. As part of ongoing governmental dynamics, Indonesia has undergone multiple cabinet restructurings and redefinitions of institutional duties and functions. These adjustments often involve shifts in institutional mandates, mergers of work units, and transfers of authority between agencies. While intended to enhance governance efficiency and improve public service delivery, such changes have also disrupted data availability and consistency, particularly for data linked to NUA indicators. In some instances, institutional renaming or the repositioning of technical units has interrupted documentation continuity or hindered public access to data. Furthermore, modifications to reporting systems and coordination mechanisms across institutions require an adaptation period, affecting the comprehensiveness and integration of data for this report.

Consequently, the process of data collection has become more intricate, necessitating direct engagement through both formal and informal communication with relevant technical units. These structural changes have complicated the preparation of the national report, especially in obtaining accurate, current, and verified data from multiple sources. The drafting team had to navigate across different ministries and agencies, establishing new lines of communication with technical units now responsible for sectoral data previously managed under different institutional arrangements. This situation underscores the urgent need to strengthen an integrated and sustainable national data management system to ensure that structural shifts within government do not obstruct the monitoring and evaluation of development policies, including those related to NUA implementation.

Part 1
Transformative Commitments for Sustainable Urban Development

1.1 Sustainable Urban Development for Social Inclusion and Poverty Elimination

1.1.1 Reducing inequality and promoting social inclusion and empowerment of vulnerable groups

The Government of Indonesia has undertaken a range of strategic initiatives to eradicate poverty, addressing its physical, social, and structural aspects. Efforts to tackle poverty stemming from limited access to essential services—such as education, healthcare, clean water, and sanitation—are being progressively advanced through the enhancement of basic needs-oriented programmes. Furthermore, expanding access to productive resources like land and business capital, along with fostering economic opportunities for low-income communities, remains a central objective across various sectoral policy frameworks.

Poverty alleviation efforts are also directed specifically at vulnerable groups, including women, children, persons with disabilities, the elderly, and indigenous peoples, through affirmative approaches integrated in national programmes such as the Family Hope Programme (Program Keluarga Harapan/PKH), Rice Food Assistance, Direct Cash Assistance (Bantuan Langsung Tunai/BLT), Non-Cash Food Assistance (Bantuan Pangan Non-Tunai/BPNT), National Health Insurance (Jaminan Kesehatan Nasional/JKN), and the Smart Indonesia Programme (Program Indonesia Pintar/PIP). At the local level, strengthening community-based development through the utilisation of the Village Fund has also become an important instrument in reducing inequality, including the distribution of Village Fund Cash Assistance (Bantuan Langsung Tunai Dana Desa/BLT-DD).

1.1.1.1 Eradicating Poverty in All Its Forms

Towards a Decade of Sustainable Development Goals (SDGs) and Nine Years of the *New Urban* Agenda (NUA), Indonesia is consistently committed to eradicating poverty and hunger in all its forms and dimensions (NUA §3). Under the SDGs, poverty eradication is broken down into seven key targets, ranging from eliminating extreme poverty to establishing pro-poor and gender-sensitive policy frameworks. These targets are intended to guarantee that all individuals—regardless of gender, age, or disability—can fully engage in society. This involves ensuring access to healthcare, sufficient food and clothing, decent employment opportunities, as well as access to credit and financial services.

In the previous NUA reporting period, Indonesia recorded a decline in the national poverty rate to below 10%, at 9.2% in 2019. However, the period of 2020-2024 was challenging. The COVID-19 pandemic that began in early 2020, along with mobility restrictions, had a major impact on the economy, including an increase in poverty.

Population below the poverty line

Based on data from the Statistics Indonesia (BPS) through the National Socio-Economic Survey (Susenas), the percentage of poor people had increased from 9.78% in March 2020 to 10.14% in March 2021. However, when the pandemic began to subside, the poverty rate again showed a downward trend: 9.03% in March 2024 and 8.57% in September 2024. These achievements are the lowest in the last decade.

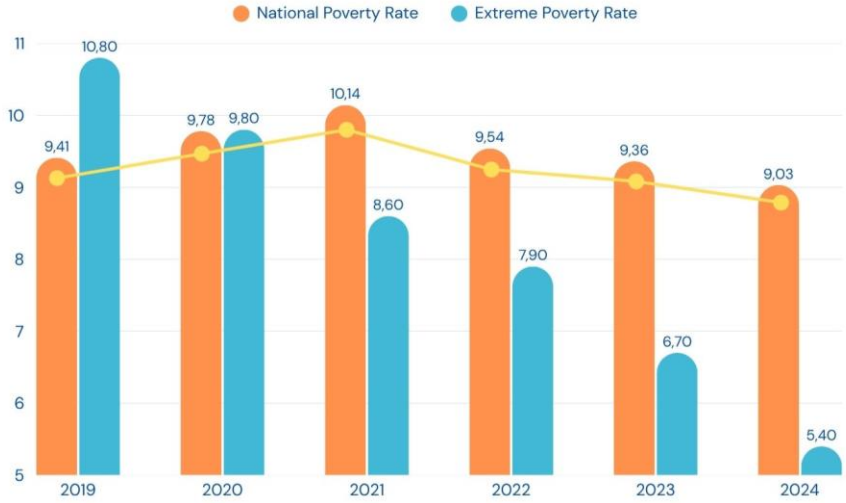


Figure 1.1 National and Extreme Poverty Rates (PPP USD 3 per day) (%), 2024
Source : BPS, 2024; Bappenas, 2024; world bank, 2024

In September 2024, the number of poor people in Indonesia was recorded at 24.06 million, equivalent to 8.57% of the total national population. This figure shows a decrease of 1.16 million people or 0.43 percentage points when compared to the conditions in March 2024. Above the poor, there are the vulnerable poor (1.0-1.5 x poverty line), the middle class (1.5-3.5 poverty line), the middle class (3.5-17 x poverty line), and the upper class (17 x poverty line). In September 2024, the percentage of the vulnerable poor group was 24.42 % (68.51 million people); the middle class group was 49.29 % (138.31 million people), the middle class was 17.25 % (48.41 million people), and the upper class was 0.46 % (1.29 million people).

Looking further back, this poverty rate is the lowest since the New Order era. This decline is inseparable from a number of positive factors in the economy, including national economic growth of 5.35%, an increase in household consumption of 2.63%, and a significant jump in the growth of Gross Domestic Product (GDP) in the agricultural sector which reached 23.54%. When compared to March 2021, the number of poor people has decreased by 3.48 million people or 1.57 percentage points, showing a significant improvement trend after the pandemic.

Changes in poverty and extreme poverty indicators

In addition to poverty in general, the issue of extreme poverty is one of the government's main focuses. Extreme poverty is defined as a condition when individuals or families are unable to fulfil their most essential basic needs for survival, such as food, clean water, proper sanitation, basic health services, and adequate shelter. Extreme poverty measures are usually calculated based on international poverty lines adjusted for purchasing power parity (*PPP*). In 2017, the World Bank revised the extreme poverty threshold standard from USD 1.90 to USD 2.15 per capita per day. This standard has increased again in 2021 to USD 3.00 per capita per day. One of the triggers for this change was the rise in national poverty lines in 16 low-income countries.

The poverty line for *lower-middle income* countries was also revised from USD 3.65 to USD 4.20. The same applies to the poverty line for upper-middle income countries. The limit changed from USD 6.85 to USD 8.30.

Reflecting on Indonesia's status as an upper middle-income country, if measured using the latest standards, the poverty rate in Indonesia in 2024 reach 68.25%, equivalent to 194.67 million people. Then when using the international poverty line, there are 15.42 million people, equivalent to 5.4%, living below the poverty line.

The Poverty Line in September 2024 was recorded at Rp595,242.00/capita/month with a composition of the Food Poverty Line of Rp443,433.00 (74.50%) and the Non-Food Poverty Line of Rp151,809.00 (25.50%). In September 2024, the average poor household in Indonesia had 4.71 household members. Thus, the average poverty line per household was IDR 2,803,590 per poor household per month. This poverty line figure will change in the future following the latest standards from the World Bank, which ideally, is in the range of IDR 750,000 to IDR 1.5 million per capita, when referring to the poverty line of lower middle and upper middle income countries.

However, it should be noted that based on World Bank data, there has been a downward trend in the poverty line in the two NUA reporting periods from 2016 to 2024 from 18% to 5.4%. This trend shows that social assistance programmes such as BLT (Bantuan Langsung Tunai) and PKH (Program Keluarga Harapan) have helped the poor meet basic needs such as food and children's education that can be used immediately to reduce spending on daily needs. However, these social assistance programmes need to be expanded to include long-term impacts including strengthening the economic capacity of the community.

Distribution of the Poor in Indonesia

By island, the largest number of poor people in March 2024 was found in the Maluku and Papua Islands at 19.39%. Meanwhile, the lowest percentage of poor people was in Kalimantan Island, at 5.44%. In terms of numbers, the largest poor population was still found on Java Island (13.24 million people) while the smallest poor population was on Kalimantan Island (0.94 million people).

Figure 1.2 Percentage of poor people by island in Indonesia, March 2024
Source: Processed from STATISTICS INDONESIA (2024)

Urban vs Rural Poverty Rates

By area of residence, the poverty rate in rural areas is still higher than in urban areas[1] , although both showed a significant decline over the period March to September 2024. In urban areas, the number of poor people fell by 0.59 million, from 7.09% to 6.66%. Meanwhile, in rural areas, there was a decrease of 0.57 million people, from 11.79% to 11.34%. Nevertheless, the poverty gap between urban and rural areas is still quite wide.

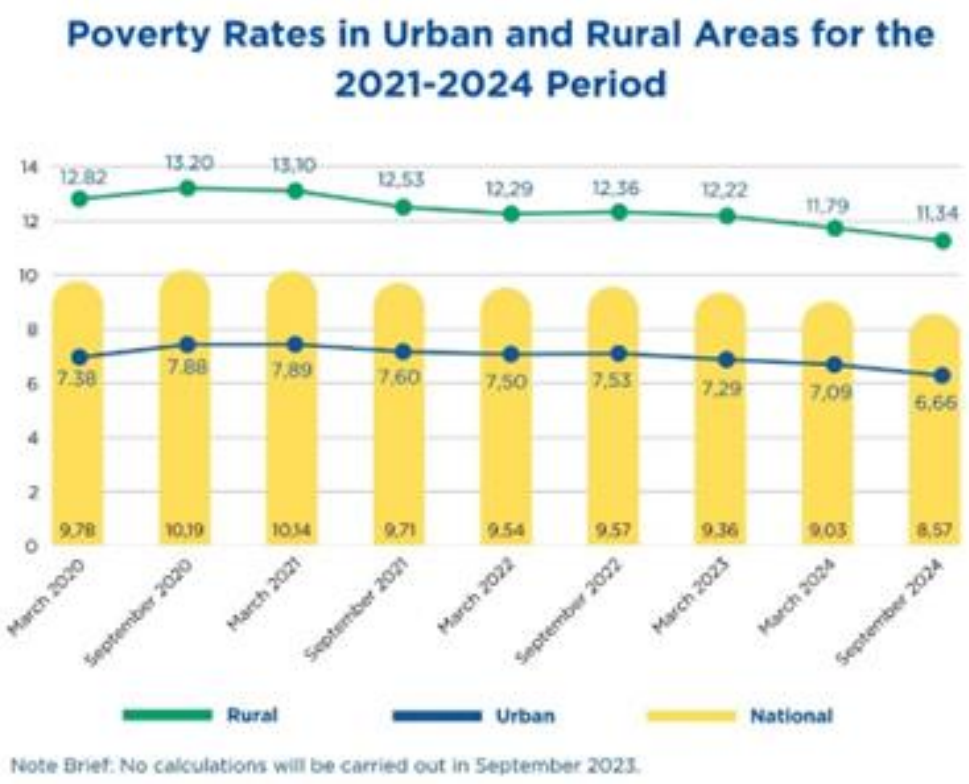


Figure 1.3 Poverty Rates in Urban and Rural Areas for the 2021-2024 Period
Source: STATISTICS INDONESIA, 2024

In more detail on the aggregation of urban data for the last one year (2023-2024) in each province, a decrease in percentage occurred in almost all provinces in Indonesia with only ten provinces experiencing an increase in percentage. Several provinces that experienced a large decrease in the percentage of poor people include South Sumatra 1.03%, NTB 0.9%, Jambi 0.69%. Meanwhile, provinces that experienced an increase in the percentage of poor people included Papua by 0.65% and West Sulawesi by 0.21%.

[1] According to the Regulation of the Head of the Central Statistics Agency (Perka STATISTICS INDONESIA) Number 120/2020 on the Classification of Urban and Rural Villages in Indonesia in 2020, the criteria for urban villages are determined by population density per square kilometre, the percentage of families working in the agricultural sector, and the presence of or access to urban facilities. A village or kelurahan is classified as an urban village if it fulfils a total score of 9 or more of the three criteria. Based on this classification, there are 29,640 urban villages in Indonesia, accounting for 35.31% of the total number of villages. The distribution of urban villages shows that the proportion of urban villages in Java Island is much higher compared to areas outside Java Island.

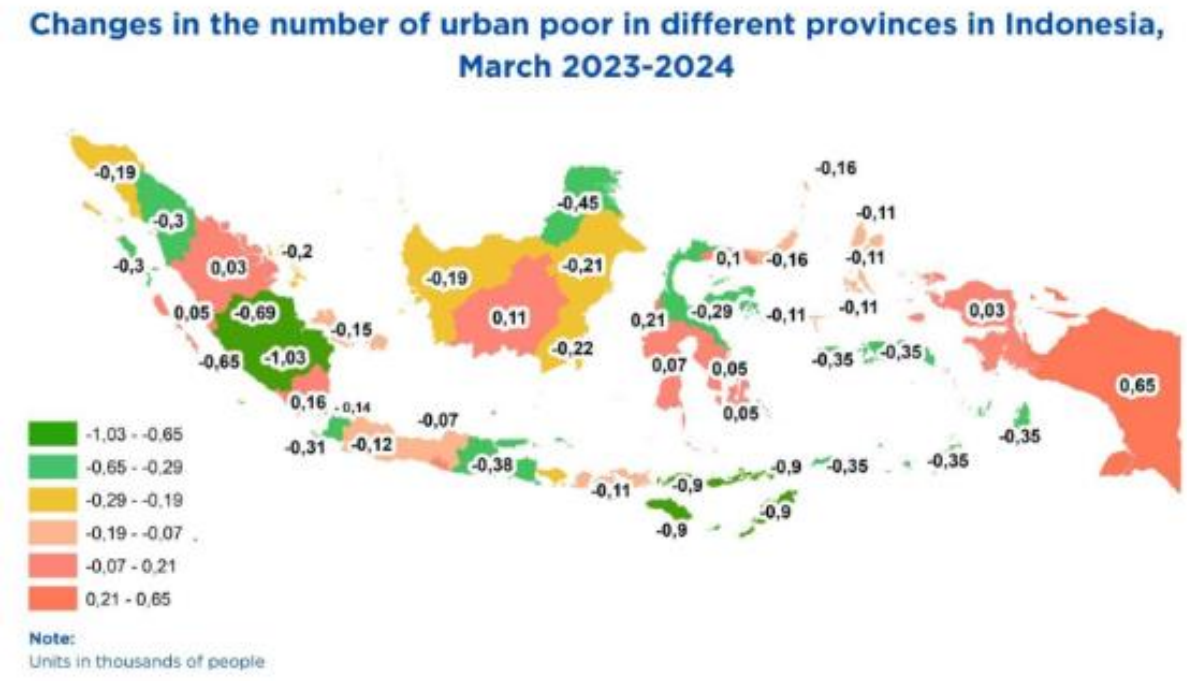


Figure 1.4 Changes in the number of urban poor in different provinces in Indonesia, March 2023-2024
Source: Processed from STATISTICS INDONESIA (2024)

Poverty Rates at Various Ages

By age group, the poverty rate for the 2021-2024 period is highest among people under the age of 18, with a gap of 3.38%. This is because this age group is generally still studying and has limitations in accessing decent work. In addition, as many as 6.33% of young people in Indonesia act as the Head of Household (Kepala Rumah Tangga/KRT) who is responsible for the daily needs of the household, or the person who is considered/designated as the KRT (STATISTICS INDONESIA, 2024). Despite this, the poverty rate tends to decrease in both the under-18 and over-18 age groups. In 2021, the percentage of poor people under the age of 18 was recorded at 12.64%, then decreased by 0.79% points to 11.44% in 2024. Meanwhile, the percentage of poor people over the age of 18 in 2021 was 9.09%, decreasing by 0.60% points to 8.05%. This figure is lower than when the pandemic reached its peak in 2020, which reached 8.65% (STATISTICS INDONESIA, 2024).

The picture of poverty reduction from various angles shows good progress. However, along with the increase in life expectancy and the demographic bonus, there is a phenomenon of sandwich generation. Sandwich generation is a term that refers to a group of individuals, generally in the productive age range (30-50 years old), who simultaneously bear financial and emotional responsibilities for two generations at once-i.e. aging parents and dependent children. The term describes a generation that has to divide their income and time to meet the needs of children's education, elderly care, mortgage, and daily living needs. In many cases, the sandwich generation experiences financial pressure, stress, and mental exhaustion due to these dual demands. This phenomenon reflects structural challenges in the social security system and family financial planning, and highlights the need for public policies that support elderly healthcare, affordable education, and comprehensive family welfare protection. Based on data from Susenas STATISTICS INDONESIA, as many as 4.55 million millennials and generation Z Indonesians must support the elderly in their families. Ironically, 3.93 million of them are in the lower and middle economic classes. They are recorded to have an average

household expenditure of IDR 5.87 million every month. Of these 4.55 million people, 1.7 million of them have children. In fact, 43.06% are said to have two children.

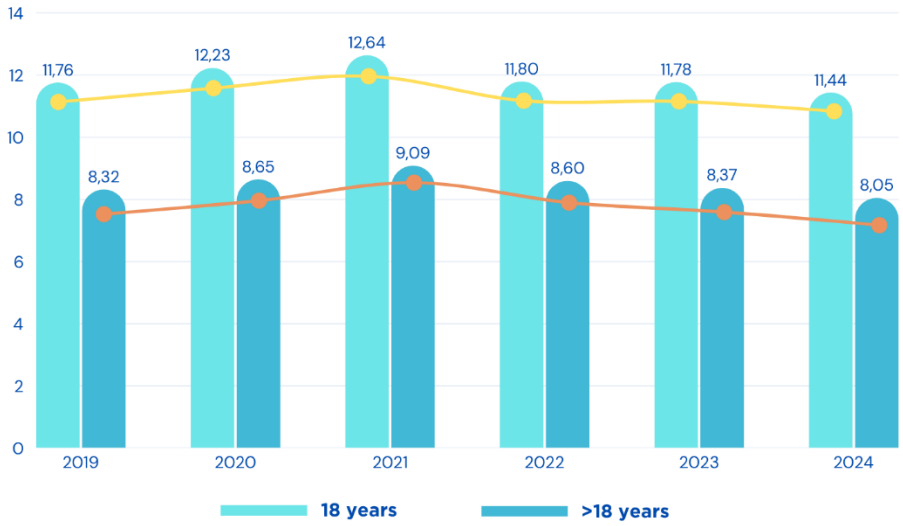


Figure 1.5 Poor Population by Age Group (%) 2021-2024
Source : (STATISTICS INDONESIA, 2024)

However, if we reflect on the declining birth rate trend, the burden of the sandwich generation will become heavier with the large number of elderly populations in the next three decades arising from the current demographic bonus. In the period 2020-2024, Indonesia began to enter a demographic transition phase characterised by a gradual decline in the birth rate or Total Fertility Rate *(*TFR) towards the replacement level, which is around 2.1 children per woman. Based on STATISTICS INDONESIA data and Bappenas projections, Indonesia's TFR in 2020 was recorded at around 2.3, and continued to decline to around 2.19 in 2022, and is expected to approach or reach 2.1 in 2024. This level reflects the average number of children needed to maintain a stable population in the long term without immigration. This decline is influenced by factors such as increased access to education and female work participation, urbanisation, delayed age at marriage, and household economic pressures.

This phenomenon is in line with the global trend experienced by countries such as Japan, South Korea, Italy, and Germany, where the TFR has fallen well below the replacement level, leading to a population crisis that has a major impact on pension systems, employment, and economic competitiveness. This decline in births has a direct relationship with the pressure on the sandwich generation, as the burden of caring for ageing parents is not matched by the support of the dwindling number of younger generations. As a result, the productive age group bears more economic and social burdens, and the country also encounters challenges in creating a sustainable social security system. In the Indonesian context, if this trend continues without adaptive intervention strategies, then in the next few decades the country will face an increasing elderly dependency ratio and a narrowing productive labour base.

Poverty Alleviation Efforts

The Government of Indonesia's poverty alleviation efforts are reflected in the poverty reduction achieved through various social protection programmes, economic stimulus, and focus on the most affected sectors, such as labour-intensive industries, Micro, Small, and Medium Enterprises (MSMEs) in various sectors, including agriculture. The government increased the social protection budget by 12.4% in 2024, to IDR 496.8 trillion. With details, IDR75.6 trillion for the budget channelled through social assistance programmes such as the Family Hope Programme (PKH), Non-Cash Food Assistance (BPNT), food cards, and food for the elderly and disabled. Then, IDR 80.5 trillion for social protection. Meanwhile, IDR 340.7 trillion for

social protection in the form of energy subsidies such as fuel, LPG, and electricity as well as non-energy subsidies such as fertilisers, Public Service Obligation (PSO), People's Business Credit (KUR), housing loan interest, and anticipation of disaster management.

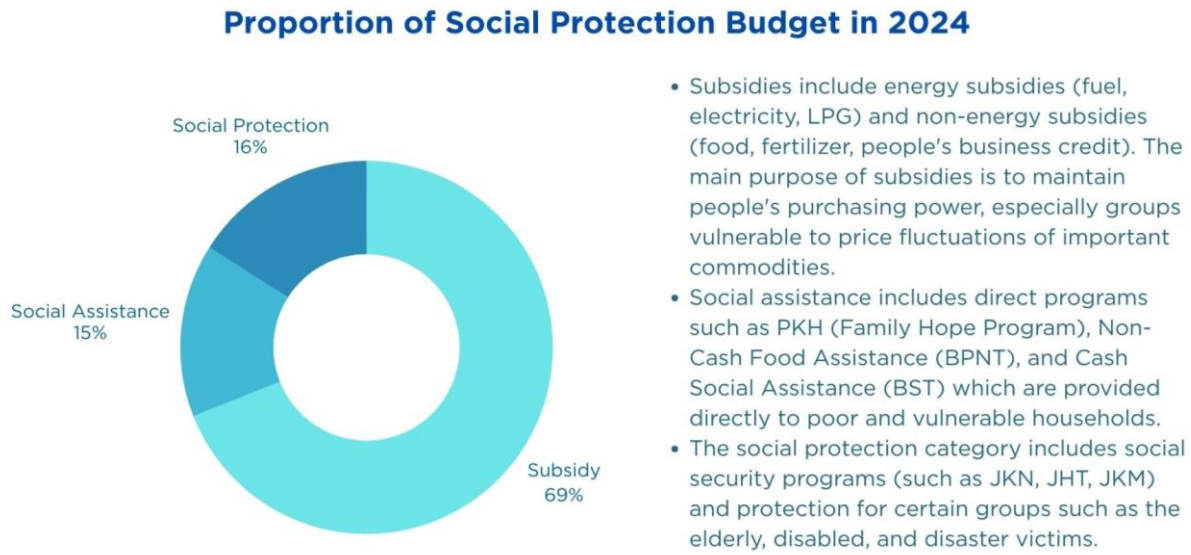


Figure 1.6 Proportion of Social Protection Budget in 2024

Based on data for the 2020-2024 period, the social protection budget has continued to increase in the last 3 years starting from 460.6 trillion in 2022, 476 trillion in 2023, and 496.8 in 2024. This budget is intended to accelerate poverty reduction, welfare improvement and human resource development in the long term.

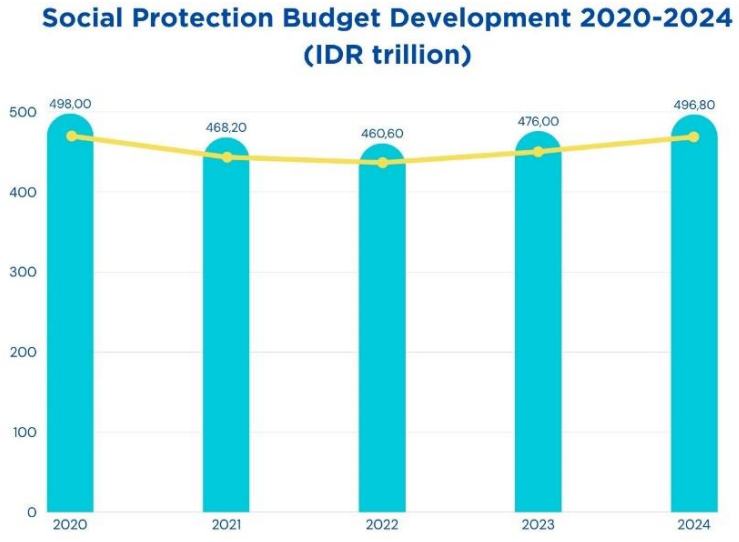


Figure 1.7 Social Protection Budget Development 2020-2024 (IDR trillion)
Source: https://ideas.or.id/2024/02/01/utak-atik-anggaran-bansos-dadakan/

In addition, poverty alleviation is also influenced by Indonesia's stable economic growth post-pandemic, at 5.03% in 2024 or an increase from 3.69% in 2021. This increase is driven by factors such as increased commodity exports, government fiscal stimulus, and recovery in economic activity.

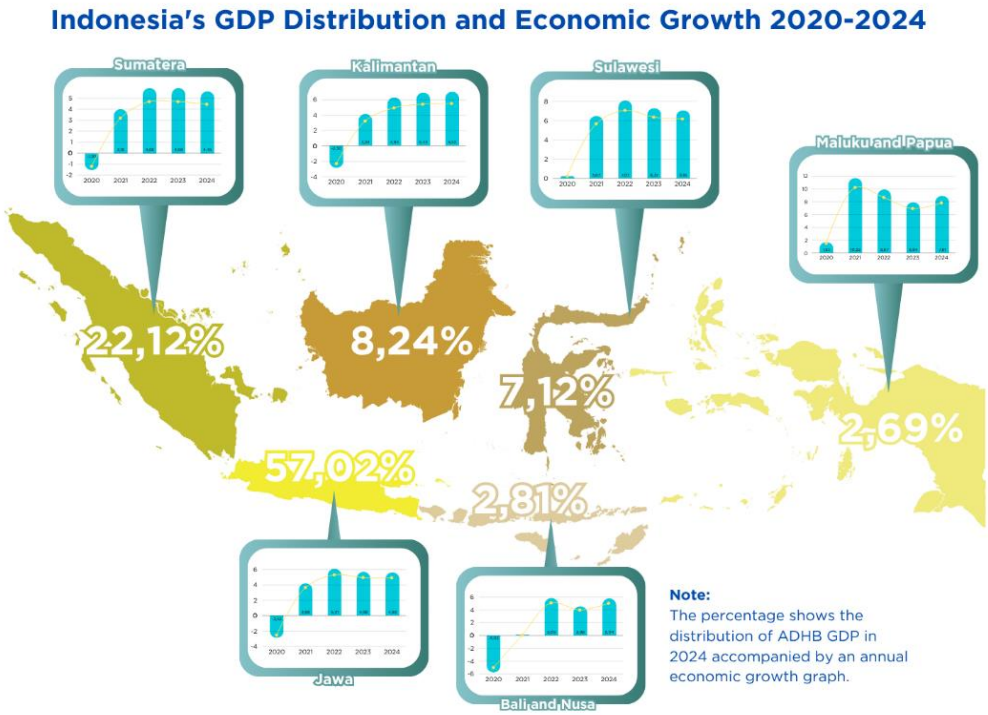


Figure 1.8 Indonesia's GDP Distribution and Economic Growth 2020-2024
Source: Processed from STATISTICS INDONESIA (2024)

Overall, the Indonesian economy in 2024 shows positive growth in all regions, with varying growth rates influenced by differences in the characteristics of economic potential and regional development. Java Island has the most dominant contribution to national GDP at 57.02%, this dominance is due to the high concentration of industrial, trade and service activities, while Maluku and Papua contribute 2.69%, although the GDP contribution is relatively small, Maluku and Papua have enormous natural resource potential, especially mining (gold, copper) and fisheries. Regional economic growth from 2020-2024 shows that Bali and Nusa Tenggara (5.04%), Kalimantan (5.52%), Sulawesi (6.18%), and Maluku and Papua (7.81%) recorded higher growth rates than the national average of 5.03%.

1.1.1.2 Address Inequalities in Urban Areas by Promoting Opportunities and Sharing Equal Benefits

Social and economic inequality in urban areas has become one of the biggest challenges in sustainable development. Amidst rapid urbanisation and economic growth, the gap between different groups of people is widening. These inequalities are reflected in gender equality of opportunity, education, health services, decent work, and basic infrastructure. The Gender Empowerment Measure (GEM / IPG) and Gender Development Index (GDI / IDG) are the two main indicators used to measure the extent to which gender equality is achieved in development. The higher the IDG and HDI values, the smaller the gap between men and women in access to and control over resources and decision-making. Both are important as evaluation and planning tools for gender-responsive public policies, as they can indicate successes or challenges in realising social justice and inclusiveness in development.

Gender Development Index

The Indonesian government has utilised the concept of the Human Development Index (HDI) from the United Nations Development Programme (UNDP) as an approach to measuring

human development progress. One of the measurement indicators is the equality of opportunities and benefits between men and women which is reflected in the Gender Development Index[2] . This GDI assessment is measured based on life expectancy, expected years of schooling, average years of schooling, and income.

Figure 1.9 Gender Empowerment and Development Index in Indonesia 2020-2024
Source: STATISTICS INDONESIA, 2024

Based on data from 2021-2024, Indonesia's GDI value shows an increasing trend even though the increase is still below 1%. In 2021 the GDI value was 91.27 then increased by 0.58 to 91.85 in 2024. This indicates that Indonesia is getting closer to achieving gender equality.

Gender Empowerment Measure or Index

Another measurement that is often used in measuring gender equality is the Gender Empowerment Index Measure (GEM) to measure the extent to which women participate in decision-making processes in economic and political activities. The GEM is measured in 3 (three) dimensions: representation in parliament (proportion of women and men in parliament), decision-making (proportion of women and men in managerial positions, administrative staff, professional workers, and technicians), and income distribution (wages of male and female non-agricultural labourers). A high level of GEM indicates that women have better access to participate in economic, political, and decision-making activities, and shows an improvement in gender equality.

In 2021, Indonesia's GEM has reached 76.26 and in 2024 has continued to increase to 77.62, indicating progress in efforts to create gender equality. Looking at the representation of women in the three fields, around 49% of women have professional positions, 36% are involved in economic activities and 22% are active in parliament (STATISTICS INDONESIA, 2023), indicating that more women occupy important positions in the working environment indicating progress in gender equality, but the proportion of women in parliament is still relatively low.

[2] This index comprehensively describes the extent to which women and men can enjoy the results of development in various aspects of life, such as life expectancy, health, knowledge, and decent living standards, but is more directed at revealing gender inequality. If the gender development index figure is closer to 100, it indicates that gender development is more balanced or equal, but if it is further away from 100, then gender development between the sexes is more unequal, (Statistics Indonesia, 2023)

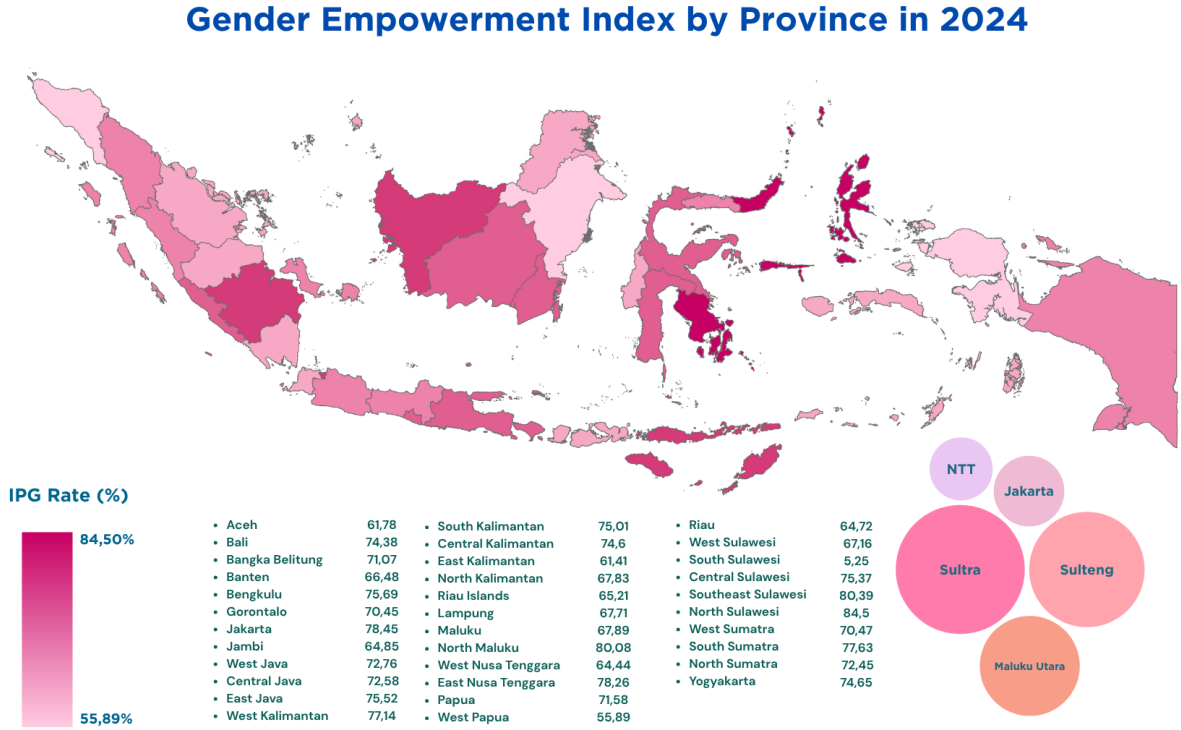


Figure 1.10 Gender Empowerment Index by Province in 2024
Source: STATISTICS INDONESIA, 2024

By province, the highest GEM is in North Sulawesi Province (84.50), while the three lowest GEMs are in West Papua, Mountainous Papua, and Southwest Papua, followed by East Kalimantan (61.41) and Aceh (61.78) which also have relatively low GEM values. Based on the distribution of the GEM in each province, it appears that a high level of urbanisation does not guarantee a higher GEM. For example, some provinces in Java have a lower HDI than the national average, while provinces in eastern Indonesia have a higher HDI than the national average. Urbanisation can provide more opportunities for the economy, education and access to public services, but urbanisation is not a guarantee for an increase in the HDI as each region has different characteristics such as social factors, culture, religion and government policies.

Efforts to Increase Gender Empowerment

Indonesia has attempted to increase women's representation in parliament by implementing policies, for example through Law No. 10 Year 2008 on the Election of members of the House of Representatives, Regional Representative Council, and Regional House of Representatives (DPR, DPD, DPRD). This regulation requires political parties to nominate at least 30% of women in each electoral district. The government has also made a breakthrough in reducing labour inequality by enacting Law No. 6 of 2023, also known as the Job Creation Law, as a legal basis for regulating industrial relations, protection for workers, and encouraging equal employment opportunities and treatment for all workers, regardless of gender, religion, ethnicity, or class.

Additionally, Law No. 8/2016 on Persons with Disabilities explicitly regulates the rights of persons with disabilities to equal opportunities in various fields, including employment opportunities. For example, there are special allocations to recruit persons with disabilities in government agencies and affirmative programmes to recruit individuals from eastern Indonesia (Papua and West Papua).

Women's Participation in the Labour Force in Indonesia (August 2024)

Although the Gender Development Index shows equality, a significant gap remains in the Labour Force Participation Rate (LFPR) which is estimated to reach 69.80% of the population by 2024. In August 2024, the female labour force participation rate in Indonesia was recorded at 56.42%, much lower than the male labour force participation rate of 84.66%, which means that out of every 100 working-age males, around 84 are in the labour force. Thus, the male LFPR is about 1.5 times higher than that of women. However, compared to August 2021, women's LFPR has increased by 3.08%, indicating an improvement as more women are involved in economic development, although significant disparities still remain.

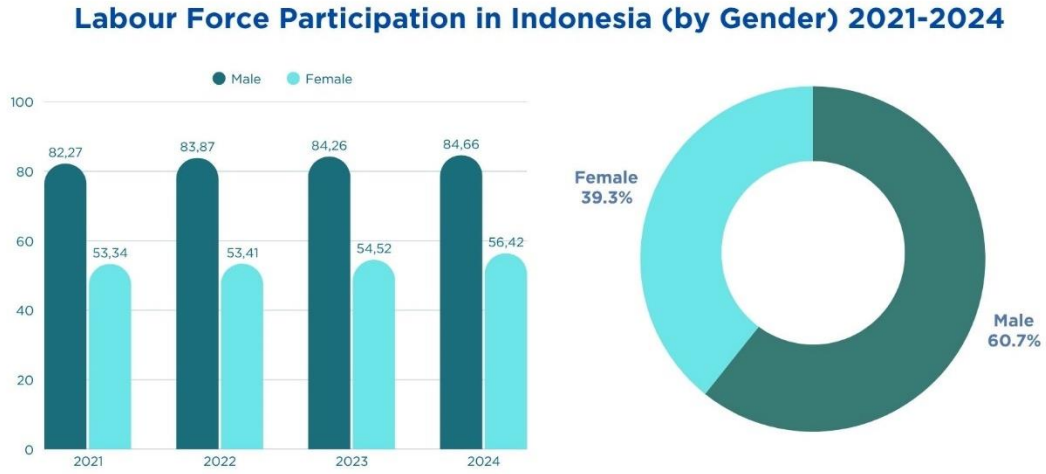


Figure 1.11 Labour Force Participation in Indonesia (by Gender) 2021-2024
Source: Sakernas, 2024

This gap in participation is shaped by several factors, including traditional gender role perceptions that view women as more appropriate for domestic responsibilities, particularly after marriage or childbirth. Additionally, women often bear a dual burden, balancing household duties with formal employment, which restricts their ability to engage fully in the labor market. Deep-rooted cultural norms continue to define women primarily as homemakers, leading many to opt out of work despite attaining educational levels comparable to men. While educational attainment has improved, more substantial efforts are still required to address the structural and cultural obstacles hindering women's involvement in the workforce.

National Labour Force Participation Rate (February 2024)

Based on the results of the February 2024 National Labour Force Survey (Sakernas), there are three provinces with the highest Labour Force Participation Rate (LFPR), namely Papua Pegunungan at 87.53%, followed by Bali at 77.37%, and Central Papua at 76.99%. Meanwhile, the three provinces with the lowest LFPR are North Sulawesi (63.98%), Aceh (64.15%), and North Kalimantan (64.52%).

Figure 1.12 LFPR by sex (2018-2023) and Province (2024)
Source: STATISTICS INDONESIA, 2024

As an indicator of the percentage of the labour force to the total working-age population (15 years and above), the high LFPR in Papua Pegunungan and Papua Tengah provinces is influenced by the high proportion of working-age people who are active in economic activities, especially in the agriculture, fisheries, and mining and quarrying sectors. The majority of the population in these regions work as unpaid family workers with low levels of education, so they are more likely to accept various types of work. On the other hand, the high LFPR in Bali Province is driven by the rapid development of the tourism sector, which creates many employment opportunities. The three most labour-intensive sectors in Bali are wholesale and retail trade, agriculture, forestry and fisheries, and manufacturing.

In the young age group (16-30 years old), the LFPR in 2024 was recorded at 64.93%, meaning that around 65 out of 100 young people are ready to enter the labour market. While working youth are dominated by high school graduates (53.88%), there are differences in education patterns between urban and rural areas. In urban areas, 57.95% of working youth are high school graduates, while in rural areas, 41.75% are junior high school graduates and below. Most youth work in the formal sector (57.20%), with differences between urban (67.80%) and rural areas (42.58%). The percentage of female youth working in the formal sector has increased since 2021, although it has not yet reached pre-pandemic levels.

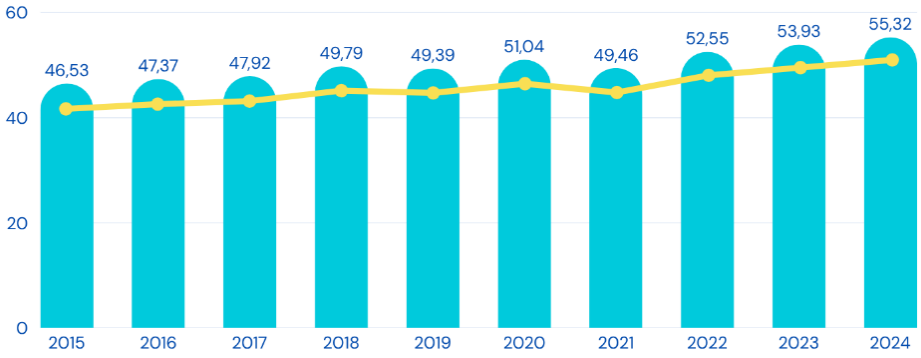


Figure 1.13 Percentage of older people working in 2015-2024
Source: STATISTICS INDONESIA, 2024

Meanwhile, in the period 2015-2024, the participation of the elderly in the labour force showed an increasing trend, with an increase of 8.79% points, from 46.53% to 55.32%. The percentage of elderly men who work (68.85%) is much higher than that of elderly women (42.87%). By region, more elderly in rural areas work (65.24%) than in urban areas (48.55%). The majority of the elderly work as self-employed (33.37%) or assisted by unpaid labour

(28.46%), reflecting that around 60% of the elderly are still financially independent, despite having to bear the business risks personally.

The percentage of older people who work as family workers or unpaid workers is also quite large, at 13.37%. The majority of older people who work are absorbed in the informal sector, which includes self-employment, business assisted by non-permanent/unpaid workers, free workers, and family workers/unpaid workers. Sakernas data for August 2024 shows that 84.75% of the elderly work in the informal sector, dominated by elderly with low education. This shows that the informal sector does not require certain educational qualifications, and most of the elderly work in vulnerable conditions, without labour protection, work contracts, or decent remuneration.

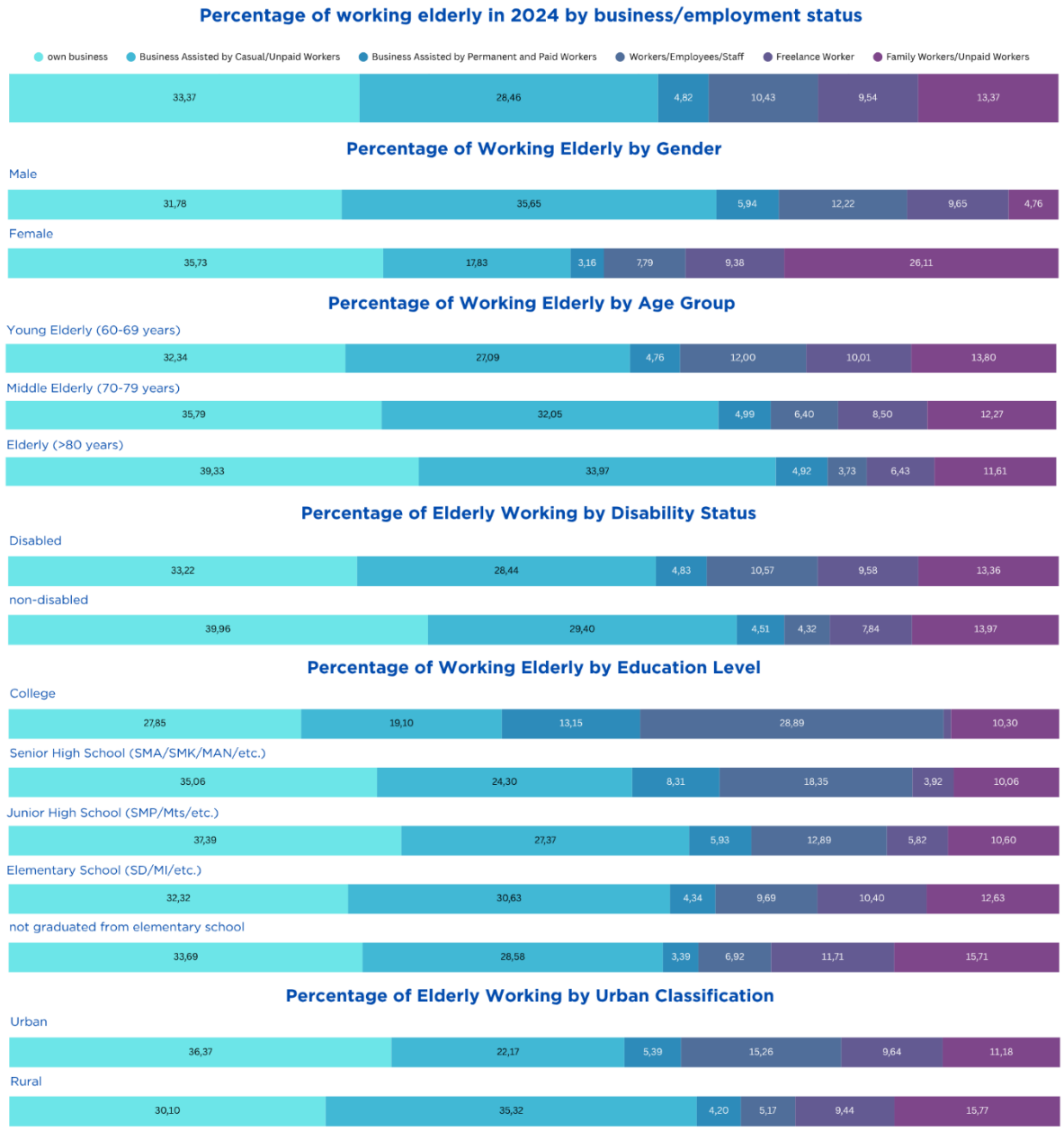


Figure 1.14 Percentage of working elderly in 2024 by gender, age group, disability status, education level, urban classification
Source: Processed from STATISTICS INDONESIA, 2024

Disability labour force participation rate

The number of people with disabilities in Indonesia is estimated to be around 22.97 million, or around 8.5% of the total population. Based on STATISTICS INDONESIA data in 2020, the prevalence of type 3 disability, which includes individuals who answered "much difficulty" or "could not do at all" in the survey, increases with age. The prevalence of type 3 disability is also increasing. In the age range of 5-17 years, it was recorded at 0.52 %, while at the age of 16-30 years it increased to 6.33 %. Meanwhile, the elderly group is much higher than the other age groups.

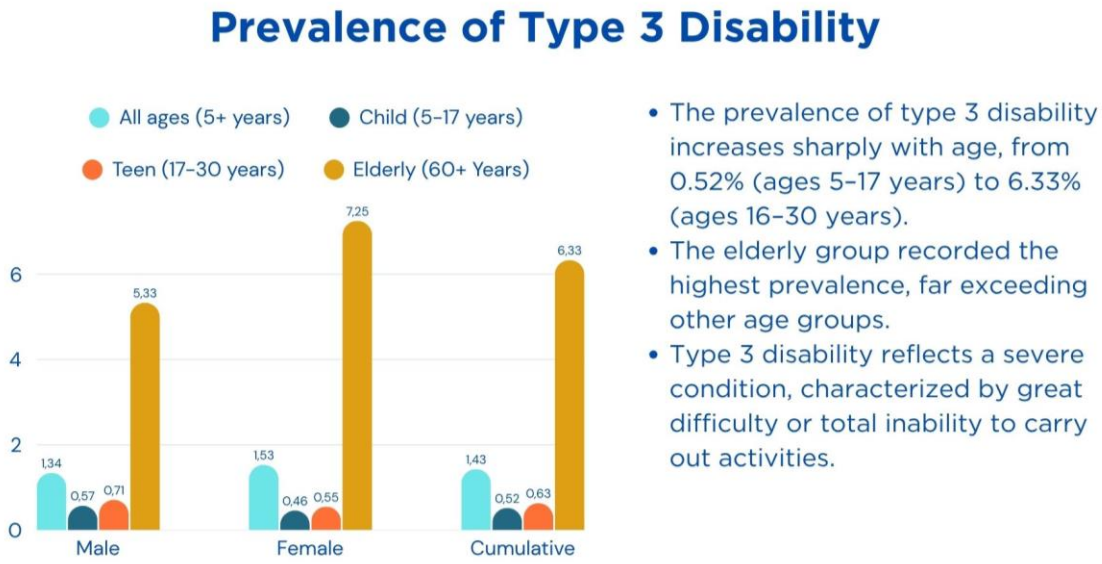


Figure 1.15 Prevalence of Type 3 Disability
Source: STATISTICS INDONESIA, 2024

Based on the results of the 2020 *Long Form* Population Census using the type 1 (physical impairment) and type 3 (physical and mental impairment) disability indicators from the Washington Group, the LFPR of persons with disabilities is lower than that of non-disabled persons. Only 21.65% of people with type 3 disabilities are employed, with the labour participation rate of women (13.93%) far below that of men (30.46%) and if by region participation in rural areas (24.72%) is higher than urban areas (19.12%).

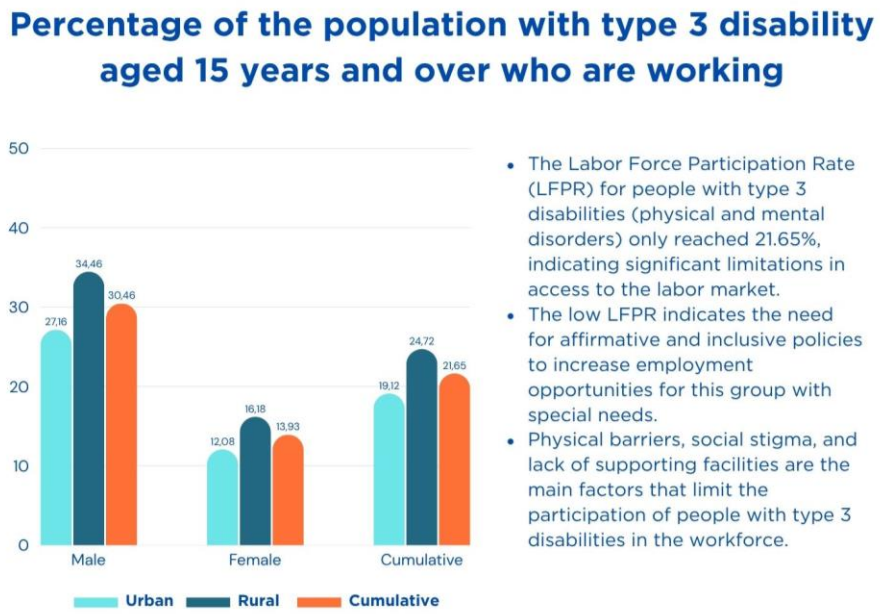


Figure 1.16 Percentage of the population with type 3 disability aged 15 years and over who are working
Source: STATISTICS INDONESIA, 2024

Nevertheless, the employment of persons with disabilities tends to be limited to low-level and low-wage informal sector, where 69.14% of persons with disabilities type 3 work in the informal sector (73.32% female, 66.96% male) and only 30.86% in the formal sector. The agricultural sector is the main employment for type 3 (41.93%) and type 1 (46.24%) persons with disabilities, followed by the service sector (type 3: 40.44%; type 1: 35.41%), while participation in the industrial sector is relatively low (type 3: 17.63%; type 1: 18.34%).

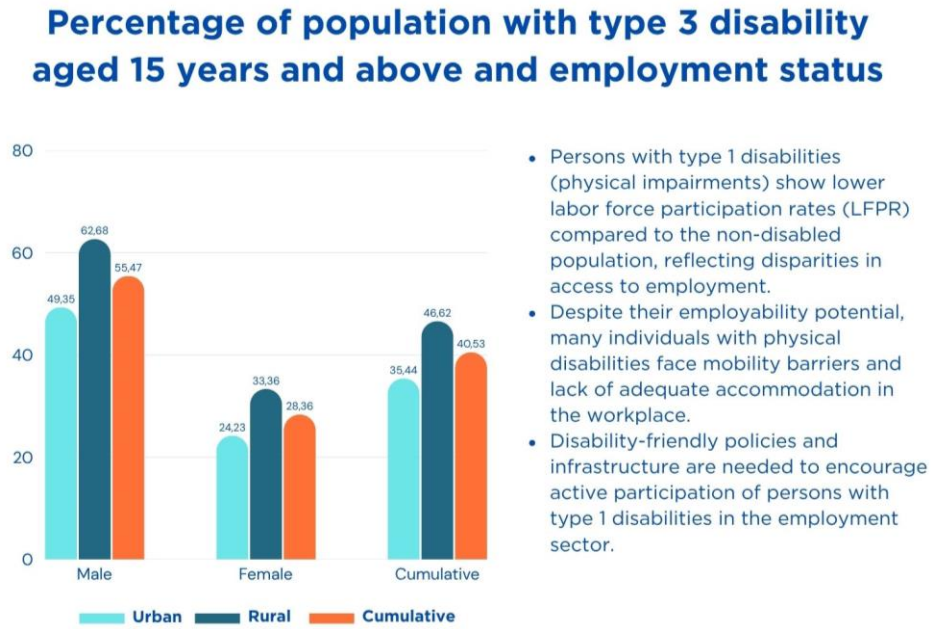


Figure 1.17 Percentage of population with type 3 disability aged 15 years and above and employment status
Source: STATISTICS INDONESIA, 2024

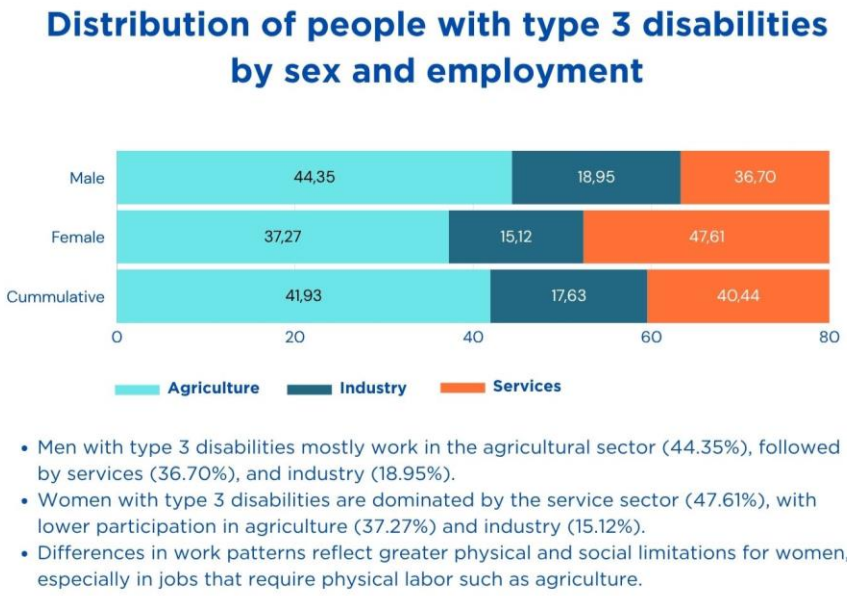


Figure 1.18 Distribution of people with type 3 disabilities by sex and employment
Source: STATISTICS INDONESIA, 2024

Meanwhile, 40.53% of people with type 1 disabilities are working, a higher number because mild disabilities are more easily accepted in the labour market, with a higher percentage of type 1 workers in urban areas (11.18% points higher than rural areas) and dominated by men (55.47%, with a higher proportion in rural areas 62.68% compared to urban areas 49.35%).

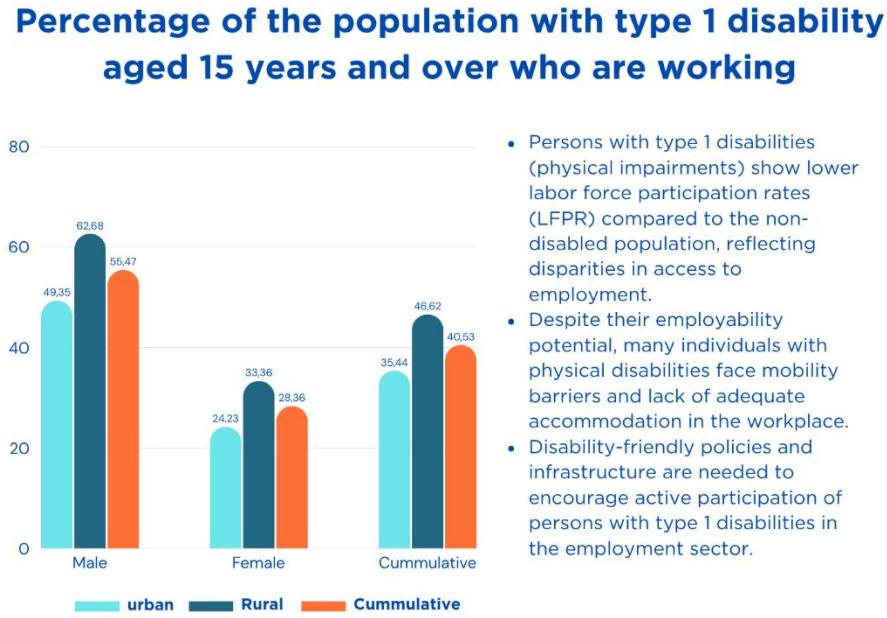
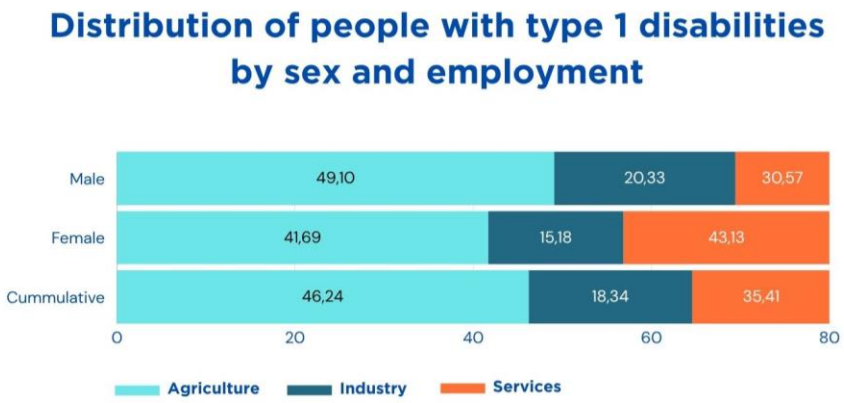


Figure 1.19 Percentage of the population with type 1 disability aged 15 years and over who are working
Source: STATISTICS INDONESIA, 2024



- Men with type 1 disabilities mostly work in the agricultural sector (49.10%), followed by services (30.57%), and industry (20.33%).
- Women with type 1 disabilities are dominated by the service sector (43.13%), with lower participation in agriculture (41.69%) and industry (15.18%).
- This distribution pattern shows that men are more absorbed in physical-based sectors such as agriculture, while women are more concentrated in the relatively physically flexible service sector.

Figure 1.20 Distribution of people with type 1 disabilities by sex and employment
Source: STATISTICS INDONESIA, 2024

The labour pattern of men with disabilities tends to follow the overall pattern (agriculture 44.35%, services 36.70%, industry 18.95%), but for women with disabilities, the services sector is the largest contributor (47.61%), followed by agriculture (37.27%) and industry (15.12%), with a lower contribution of women in agriculture due to physical limitations.

National and Provincial Open Unemployment Rate

The Open Unemployment Rate (OUR) is an indicator that shows the percentage of the labour force that does not have a job but is actively seeking work and is ready to work. OUR reflects the condition of the labour market in a region or country and is an important benchmark to assess the extent to which economic growth is able to absorb the available labour force.

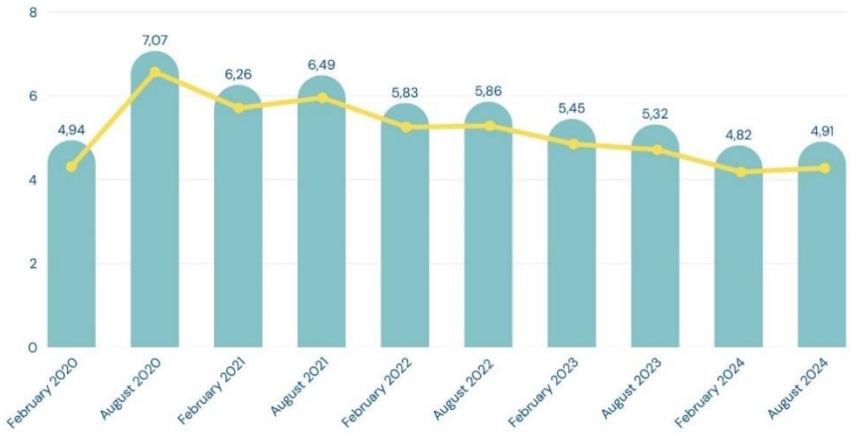


Figure 1.21 Open Unemployment Rate (%), 2020-2024
Source: Sakernas February 2020-August 2024

The number of unemployed people in Indonesia in August 2024 reached 7.47 million people, an increase of 0.27 million people or 3.75% compared to February 2024 which was recorded at 7.20 million people. Meanwhile, the OUR, which is the percentage of the number of

unemployed people to the total labour force in August 2024, stood at 4.91%. This figure increased by 0.09 percentage points compared to February 2024, which was recorded at 4.82%. This means that out of every 100 people in the labour force, there are around 5 people who are unemployed.

Looking at the trend of OUR in recent years based on Sakernas data from February 2020 to August 2024, it can be seen that in February 2020 OUR was at 4.94%, reflecting relatively stable labour market conditions before the COVID-19 pandemic hit. However, the pandemic had a major impact on the labour sector, as seen from the spike in the OUR to 7.07% in August 2020. From 2021 to 2024, the labour headcount showed a consistent downward trend, indicating a recovery in the labour market. The OUR in August 2024 of 4.91% indicates that labour conditions have almost returned to pre-pandemic levels. When viewed by gender, the OUR for men in February 2024 reached 4.96%, higher than that for women at 4.6%. This data shows that men tend to experience a slightly higher unemployment rate than women.

Although there was a slight increase in the OUR from February to August 2024, this increase was relatively small. Factors influencing the increase include the imbalance between the growth of the labour force and job creation, as well as national economic conditions. Economic growth in 2024 was recorded at 5.03%, slightly slower than the previous year's growth of 5.05%. In addition, other aspects such as wages, inflation, and investment also influence the dynamics of employment in Indonesia.

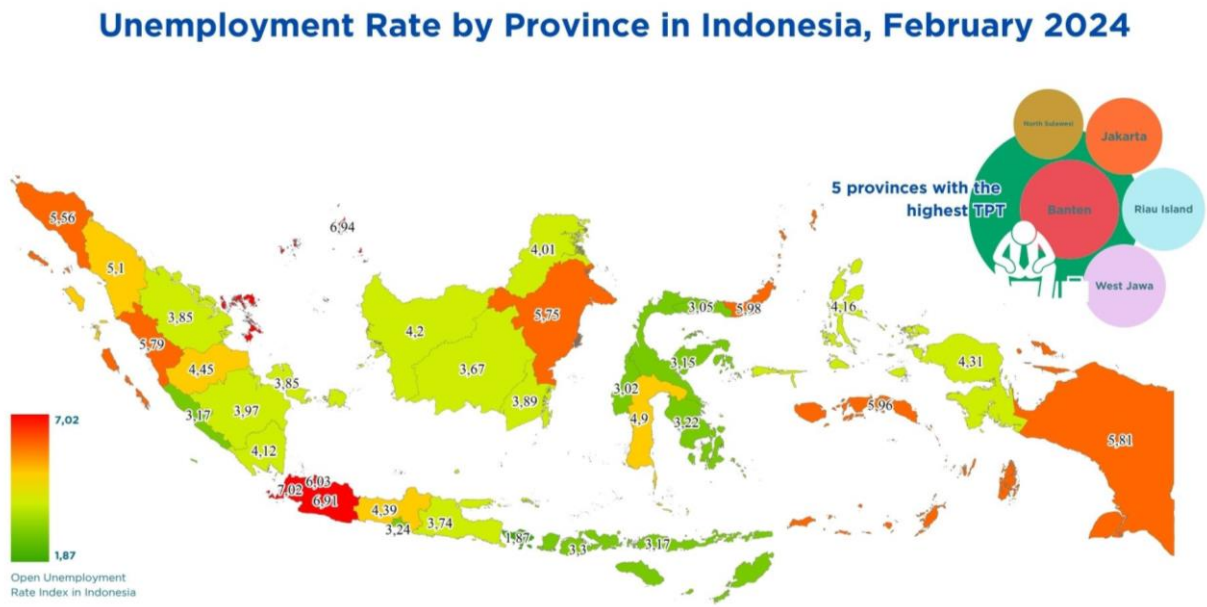


Figure 1.22 Unemployment Rate by Province in Indonesia, February 2024
Source: Processed from STATISTICS INDONESIA (2024)

In February 2024, the highest unemployment rate in Indonesia was recorded in Banten Province at 7.02%, while the lowest unemployment rate was in Papua Mountain Province at 1.18%. Based on data from the Statistics Indonesia (BPS) in the last 12 years, the unemployment rate in Banten has consistently been higher than the national average.

Urban vs Rural Open Unemployment Rate

Based on STATISTICS INDONESIA data in February 2024, the OUR in urban areas was recorded at 5.89%, higher than that in rural areas at 3.37%. The high unemployment rate in urban areas is caused by several factors, including the increasing population of cities that is not proportional to the availability of space and job opportunities. This causes competition for jobs in urban areas to be very tight. In addition, many companies in cities require labour with

specific skills and higher levels of education, so not all job seekers meet these criteria. The phenomenon of urbanisation also contributes to this, where many people from rural areas migrate to cities to look for work, but not all of them succeed in getting the jobs they expect.

Open Unemployment Rate by Age

Based on age, the highest OUR was in the young age group (15-24 years) at 16.42%, and the lowest was in the old age group (60 years and above) at 1.14%. One of the reasons for the large number of unemployed young people is the low interest of employers in employing them. Many assume that young jobseekers lack experience or are not ready to work. This assumption results in the young labour force being faced with two choices: work at any job for any wage. Or not work at all and become unemployed. Only the old age group (60 years and above) experienced an increase in the OUR from February 2023, by 0.01% points. Economic factors are thought to play a role in the increasing number of people working at retirement age.

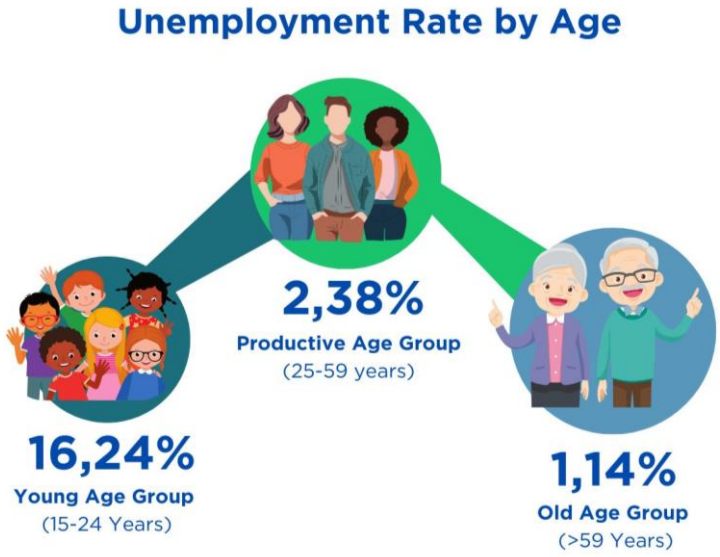


Figure 1.23 Unemployment Rate by Age
Source: STATISTICS INDONESIA, 2024

Unemployment Rate by Education Level

The OUR by education level showed that the highest unemployment rate was recorded among Vocational High School (SMK) graduates at 8.62%, while the lowest unemployment rate was found among those with primary school education and below at 2.38%. In general, the unemployment rate decreased compared to February 2023, with the largest decrease at the junior high school (SMP) level by 1.13% points. The Indonesian government has promoted the 12-year compulsory education programme, which encourages junior high school graduates to continue their education to high school (SMA/SMK) level. This naturally reduces the number of junior high school graduates entering the labour market. Diploma IV, S1, S2, and S3 graduates experienced an increase in OUR of 0.11% points, contrary to the assumption that the higher the education, the easier it is to find a job. The rise is attributed to various factors, such as the misalignment between the curriculum and industry demands, graduates' lack of readiness, and the scarcity of jobs that align with their qualifications. Additionally, the "Reservation Wage Gap" phenomenon plays a role, where graduates tend to decline existing job offers in hopes of securing more desirable positions, even though there is no certainty that such opportunities will become available in the near future.

The provinces with the highest distribution of higher education unemployment are South Papua (41.1%), Maluku (35.66%), and Bali (32.09%), indicating that the proportion of unemployment in these areas is dominated by higher education graduates, possibly due to a mismatch between educational qualifications and local labour market needs or limited formal employment opportunities. In contrast, the lowest distributions were recorded in Bengkulu (6.09%), Papua Pegunungan (7.76%), and West Kalimantan (9.38%), indicating that unemployment in these provinces is more prevalent among the lower-educated, or that higher-educated graduates are relatively more absorbed into the labour market or informal sector.

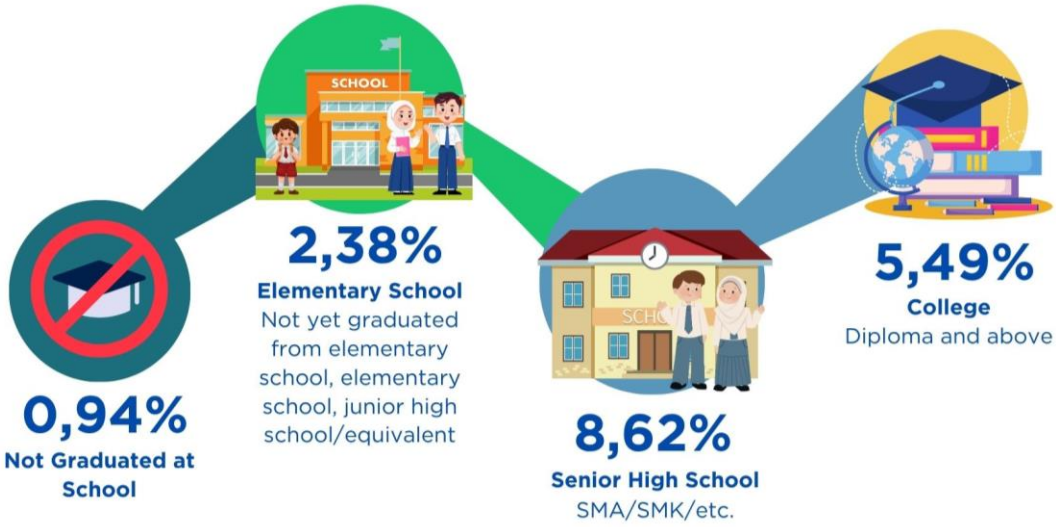


Figure 1.24 Unemployment Rate by Education
Source: STATISTICS INDONESIA, 2024

Informal VS Formal Work

The Sakernas results for August 2024 show that of the 144.64 million people who worked, 57.95% of the population worked in informal activities (83.83 million people). This percentage decreased when compared to the conditions in August 2023 and February 2024. Meanwhile, the percentage of the population working in formal activities in August 2024 was 42.05%, an increase compared to August 2023 and February 2024.

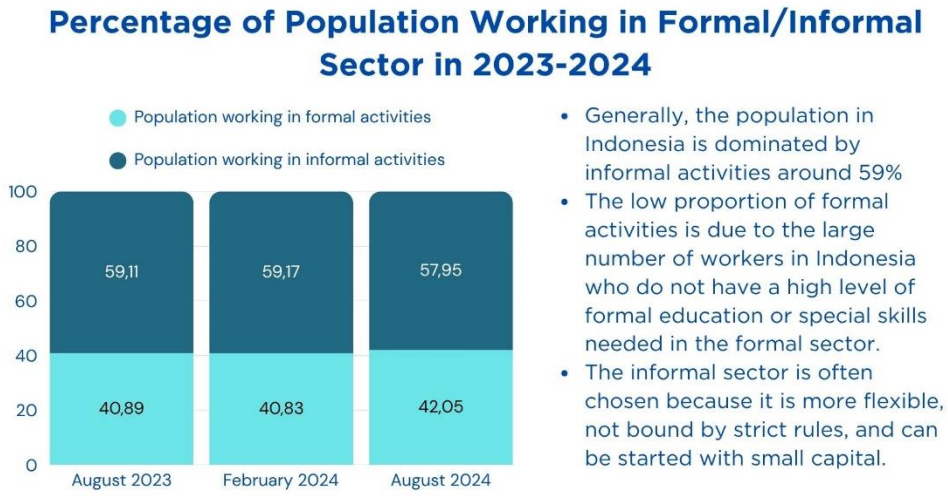


Figure 1.25 Percentage of Population Working in Formal/Informal Sector in 2023-2024
Source: STATISTICS INDONESIA, 2024

By gender, the percentage of men working in informal activities is 56.37%, which is more than the percentage of women at 43.63%. Meanwhile, in formal activities, there is a considerable imbalance between men and women. In August 2024, men accounted for 65.7% of workers in formal activities (almost two-thirds), while women only accounted for 34.30%.

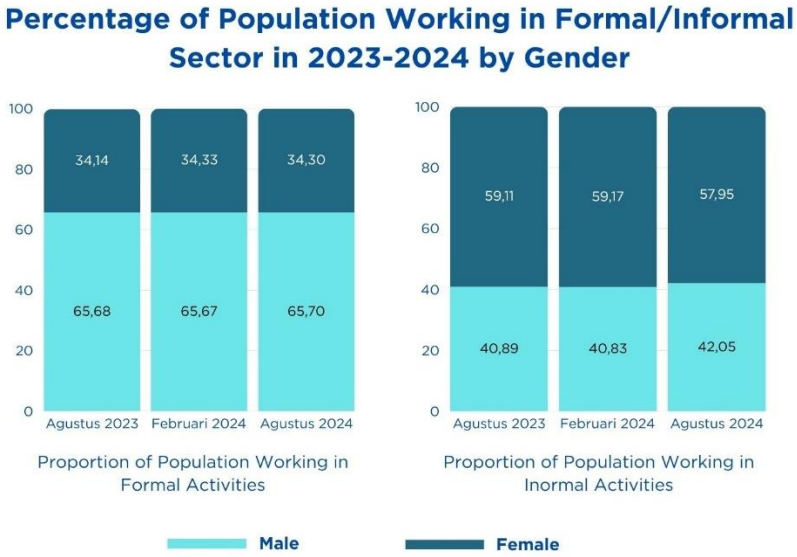


Figure 1.26 Percentage of Population Working in Formal/Informal Sector in 2023-2024 by Gender
Source: STATISTICS INDONESIA, 2024

The population working in informal activities in August 2024 was more prevalent in rural areas at 51.85% than in urban areas at 48.15%. Agricultural activities, which are dominant in rural areas, often involve informal work such as farm labourers, sharecroppers, and produce traders. The percentage of people working in informal activities in rural areas has decreased compared to August 2023 (1.71% points), as well as compared to February 2024 (1.09% points). On the other hand, the population working in formal activities shows that the majority are in urban areas. This is evident in both August 2023, February 2024, and August 2024. The working population in formal activities living in urban areas based on the Sakernas results for August 2024 reached 71.20%. This figure has increased compared to both August 2023 and February 2024.

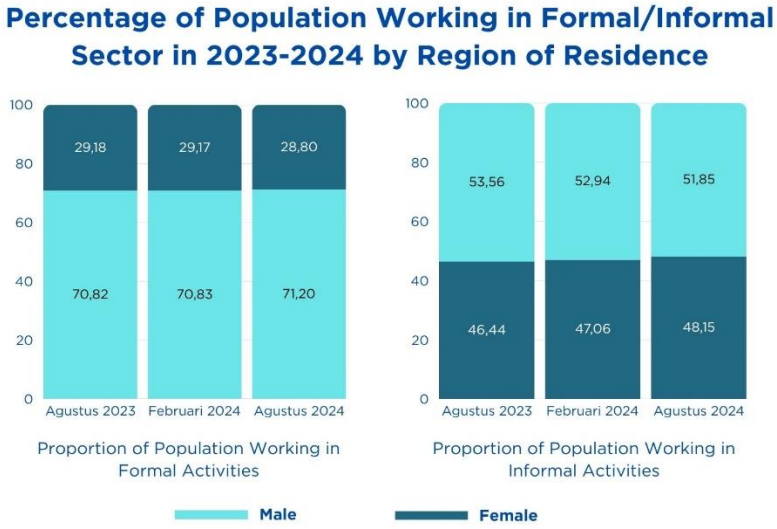
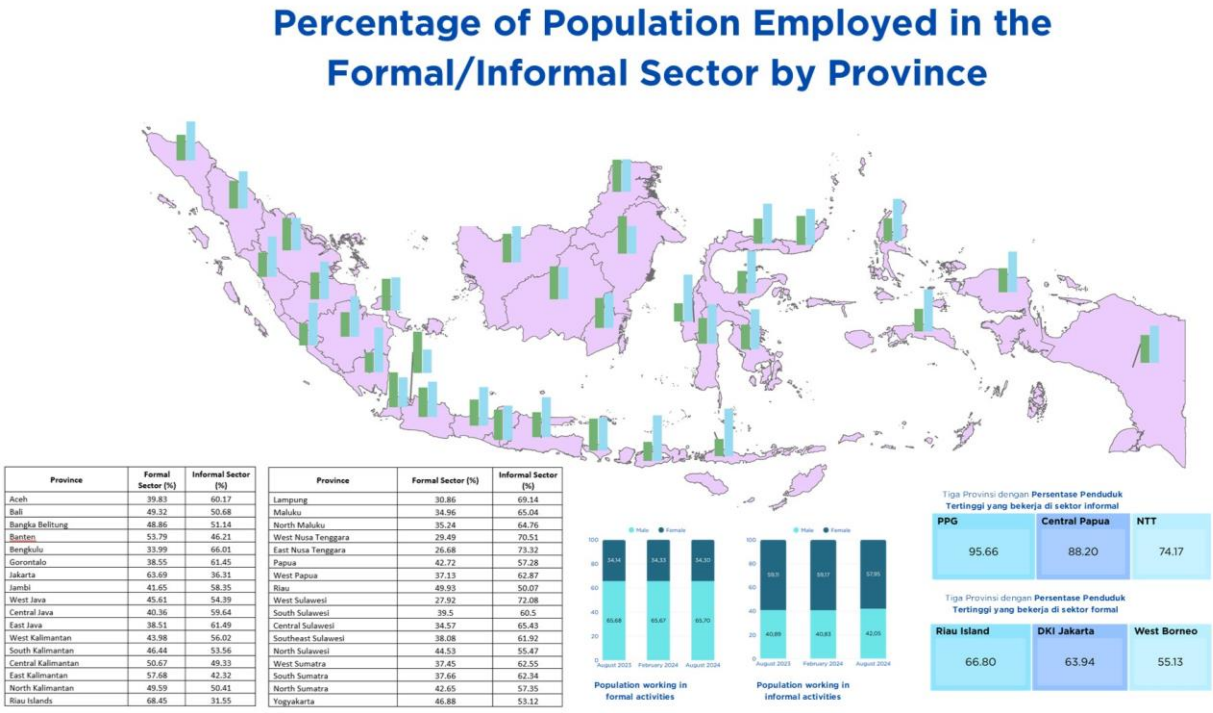


Figure 1.27 Percentage of Population Working in Formal/Informal Sector in 2023-2024 by Region of Residence
Source: STATISTICS INDONESIA, 2024

Papua Pegunungan Province is the province with the highest percentage of people working in informal activities in August 2024. Meanwhile, when viewed based on regional differences per province, the three provinces with the highest percentage in informal activities are occupied by Papua Pegunungan Province (95.76%), Central Papua Province (87.02%), and East Nusa Tenggara Province (73.32%). Meanwhile, the three provinces with the highest percentage of people working in formal activities are Riau Islands Province (68.45%), DKI Jakarta Province (63.69%), and East Kalimantan Province (57.68%). Riau Islands Province has a rapidly growing industrial sector, especially in manufacturing, maritime, and shipbuilding. The existence of industrial estates and special economic zones attracts a lot of investment and creates formal employment.

The large proportion of workers in informal activities can be an indication of the potential for hidden unemployment, as informal workers may have lower productivity or less secure employment and income than formal workers. The level of disguised unemployment refers to a condition in which a person works, but their work is not in accordance with their capacity, expertise, or the number of hours they should work, so their productivity is low and their contribution to the economy is limited. Based on labour indicators from STATISTICS INDONESIA, hidden unemployment can be seen through the percentage of part-time workers who want to work longer (underemployment), as well as informal workers or the subsistence agriculture sector that tends to have low productivity. This indicator is important in measuring the quality of employment, not just the quantity of labour absorbed. Although the open unemployment rate in Indonesia is declining, the hidden unemployment rate remains a concern because it shows that there are still many workers who have not been optimally absorbed in the productive sector. Policies to improve the quality of human resources, transform the digital economy, and create quality jobs are important solutions in reducing hidden unemployment.



Province	Formal Sector (%)	Informal Sector (%)
Aceh	39.83	60.17
Bali	49.32	50.68
Bangka Belitung	48.86	51.14
Banten	53.79	46.21
Bengkulu	33.99	66.01
Gorontalo	38.55	61.45
Jakarta	63.69	36.31
Jambi	41.65	58.35
West Java	45.61	54.39
Central Java	40.36	59.64
East Java	38.51	61.49
West Kalimantan	43.98	56.02
South Kalimantan	46.44	53.56
Central Kalimantan	50.67	49.33
East Kalimantan	57.68	42.32
North Kalimantan	49.59	50.41
Riau Islands	68.45	31.55

Province	Formal Sector (%)	Informal Sector (%)
Lampung	30.86	69.14
Maluku	34.96	65.04
North Maluku	35.24	64.76
West Nusa Tenggara	29.49	70.51
East Nusa Tenggara	26.68	73.32
Papua	42.72	57.28
West Papua	37.13	62.87
Riau	49.93	50.07
West Sulawesi	27.92	72.08
South Sulawesi	39.5	60.5
Central Sulawesi	34.57	65.43
Southeast Sulawesi	38.08	61.92
North Sulawesi	44.53	55.47
West Sumatra	37.45	62.55
South Sumatra	37.66	62.34
North Sumatra	42.65	57.35
Yogyakarta	46.88	53.12

Figure 1.28 Percentage of Population Employed in the Formal/Informal Sector by Province
Source: STATISTICS INDONESIA, 2024

Indonesia's hidden unemployment rate, which reflects the condition of workers who are not fully utilising their work capacity, has increased in 2024. According to STATISTICS INDONESIA data, the percentage of underemployment-a key indicator of hidden unemployment-increased by 1.32% points in August 2024 compared to August 2023. Overall, the national hidden unemployment rate in 2024 was recorded at 7.99%, with 6.09% in urban areas and 10.60% in rural areas. This increase shows that despite the decline in open unemployment, many workers are still in sub-optimal employment conditions, such as working part-time due to limited job opportunities or in the informal sector with low productivity. This phenomenon highlights the importance of policies that do not only focus on job creation, but also on improving job quality, skills training, and formal sector development to reduce hidden unemployment in Indonesia.

Efforts to Reduce Unemployment Rate

Indonesia is committed to inclusive sustainable urban development. In this regard, the Indonesian government agreed to end poverty and reduce inequality, in addressing the post-pandemic employment gap through the National Economic Recovery (Pemulihan Ekonomi Nasional/PEN) Programme which aims to restore the economy and create new jobs with the main focus of 1) supporting Micro, Small and Medium Enterprises (MSMEs) which are the backbone of the Indonesian economy in terms of providing access to capital through *Kredit Usaha Rakya*t (KUR), training, and coaching, 2) improving labour skills, 3) infrastructure development, and 3) encouraging investment.

In general, Indonesia has shown a strong commitment to the fulfilment of the rights of persons with disabilities. This commitment was signalled by the ratification of the UN Convention on the Rights of Persons with Disabilities (UNCRPD) in 2011. As a follow-up, Indonesia issued various regulations to ensure protection and equality for persons with disabilities, one of which is Law No. 8/2016 on Persons with Disabilities. This law mandates that persons with disabilities have the right to obtain employment, which requires the provision of accessibility for persons with disabilities in the workplace at least 2% of the total number of employees, and a decent livelihood without discrimination, including by providing reasonable accommodation in the workplace. Proper accommodation refers to the adjustments needed to enable persons with disabilities to work optimally and inclusively.

In the education sector, the Government also issued Government Regulation No. 60/2020 on Reasonable Accommodation for Learners with Disabilities. This regulation aims to ensure that people with disabilities receive equal education, which in turn can increase their chances of entering the workforce. One concrete form of support is the Indonesia Smart Card (KIP) programme for people with disabilities. As of September 2024, the Ministry of Education's Education Financing Service Centre (Puslapdik) has distributed education assistance to 41,668 students with disabilities, with a total budget of IDR 23.27 billion.

In addition, Puslapdik also provides advanced programmes such as *KIP Kuliah* and the Higher Education Affirmation Programme (ADik) that can be utilised by persons with disabilities to continue their education to the tertiary level. These efforts reflect the government's attention to expanding access to education and employment opportunities for people with disabilities, in order to realise a more inclusive and equitable society.

Gini ratio at National level

The Gini ratio[3] in Indonesia had slightly increased during the 2019-2023 period due to the Covid-19 pandemic, from 0.382 in 2019 to 0.388 in March 2023. However, in March 2024 it decreased to 0.379 which unfortunately rose again to 0.381 in September 2024. In general, the Gini ratio in Indonesia has not changed much, which means that there are significant income differences between high and low income groups both before the pandemic, during the pandemic and afterwards. When viewed by region, the inequality of the gini ratio is higher in urban areas (0.402) compared to rural areas (0.308). During this period, the gini ratio declined rapidly in urban areas compared to rural areas. Although the gini ratio declined faster in urban areas, income inequality is still a significant problem in both regions. In rural areas, factors such as dependence on agriculture, limited access to education and financial services, and lack of economic diversification may slow down the decline in inequality.

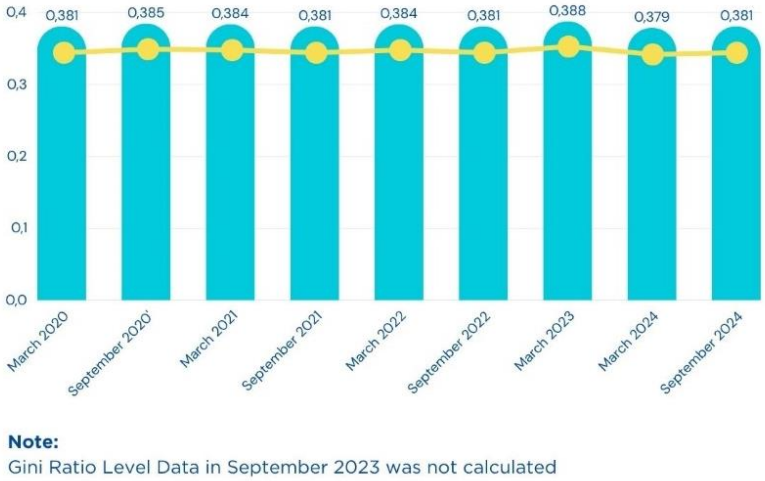


Figure 1.29 Gini ratio 2020-2024
Source: STATISTICS INDONESIA, 2024

Gini Ratio by Province

When viewed based on the September 2024 Gini Ratio data, the highest gini ratio was recorded in DKI Jakarta at 0.431 due to rapid urbanisation, which attracts highly educated individuals and widens the gap with the local population, as well as limited access to basic services such as housing and quality education. The second highest gini ratio is West Java and Special Region Yogyakarta at 0.428 triggered by uneven industrial growth, whose benefits are not fairly distributed, and a significant gap between affluent urban areas and underdeveloped rural areas, a tourism sector that creates a gap between workers, as well as the growth of the informal sector with low minimum wage standards. The third highest gini ratio is Gorontalo at 0.413 due to dependence on the agricultural sector which is vulnerable to price fluctuations and weather conditions, lack of economic diversification, limited access to markets, and lack of diversified employment.

The percentage change in the Urban Gini Ratio across Provinces, between 2023 and 2024, shows the location of the lower percentage change in Gini Index in Bengkulu, Riau Islands, Papua, and West Papua. Meanwhile West Sumatra and North Maluku experience lower Gini Ratio changes. The darker colour means a lower percentage change in the Gini Ratio.

[3] The Gini ratio is a measure used to quantify the degree of inequality in income distribution. Internationally, 0.40 is often considered the cut-off or "alert line" for inequality, whereby if the Gini ratio of a country or region exceeds 0.40, it is considered that there is significant inequality and needs serious attention (Bappenas, 2022).

Changes in the urban Gini Ratio between provinces indicate the existence of diverse income inequality dynamics in Indonesia. Some regions have successfully reduced inequality, while others still face challenges in equalising income distribution.

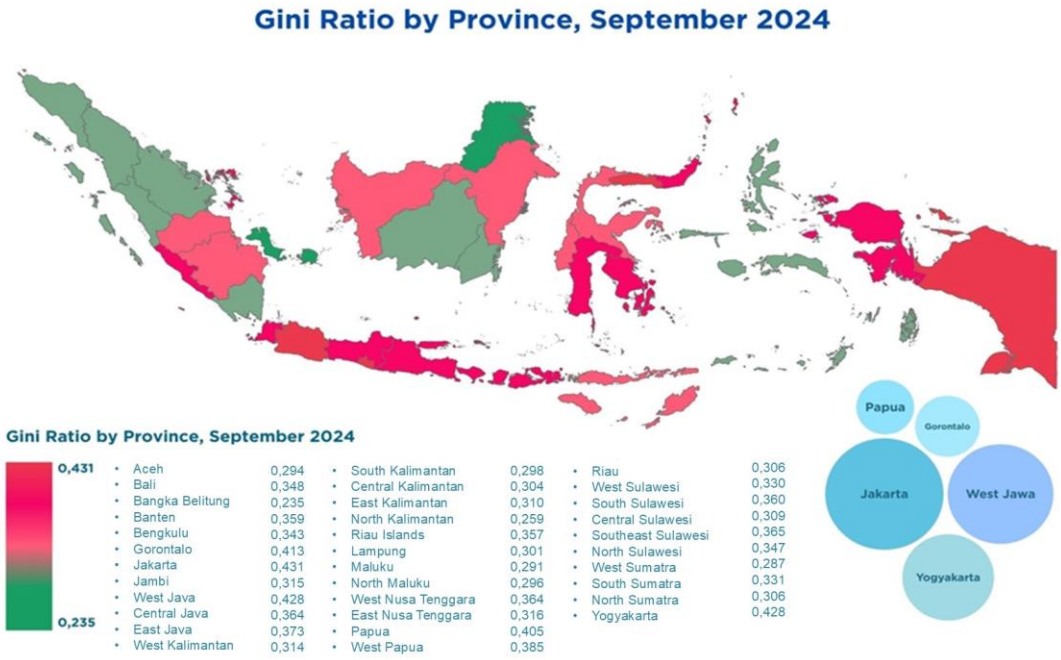


Figure 1.30 Gini Ratio by Province, September 2024
Source: STATISTICS INDONESIA, 2024

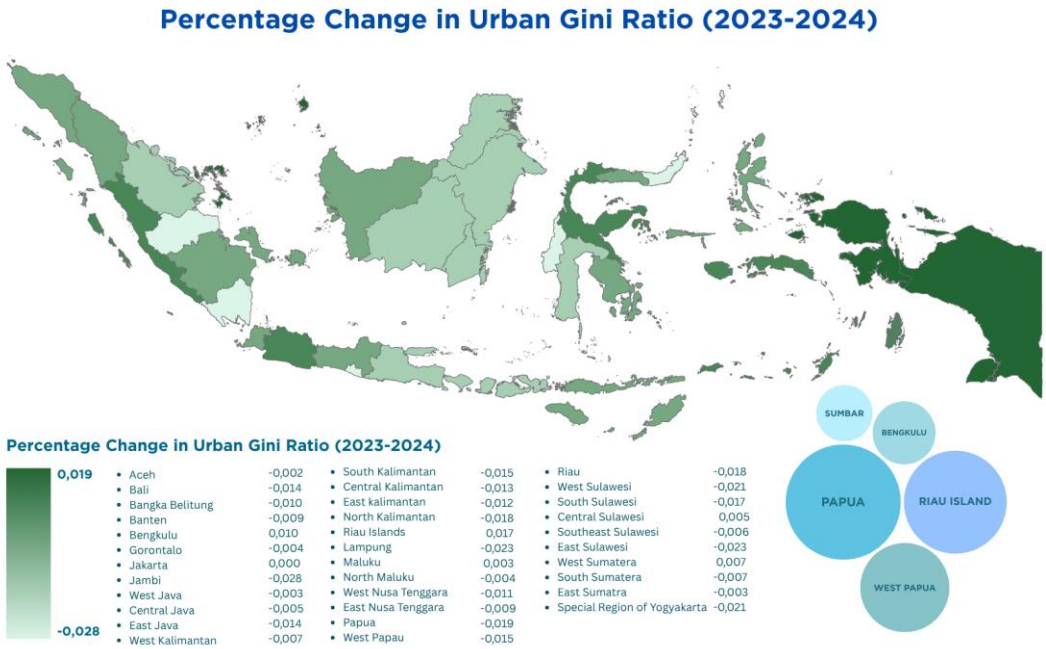


Figure 1.31 Percentage Change in Urban Gini Ratio (2023-2024)
Source: STATISTICS INDONESIA, 2024

1.1.1.3 Improve social inclusion of vulnerable groups (women, youth, elderly, people with disabilities and migrants)

Social inclusion for vulnerable groups such as women, youth, the elderly, people with disabilities, and migrants is an important part of equitable and sustainable urban development. Efforts to realise this can be measured through a number of key indicators. First, the recognition of women's legal rights to inheritance and property ownership demonstrates equal access to economic assets and resources, which is an important foundation for women's self-reliance and protection, especially in urban contexts. Second, the existence of national laws prohibiting discrimination in housing, access to public facilities and social services provides a basis for legal protection for all citizens regardless of race, colour, gender, religion, language or social status. These laws ensure that vulnerable groups are not excluded from the development process and are entitled to equal public services. Third, the average proportion of a city's built-up area that is public open space accessible to all, including by gender, age and disability, reflects the extent to which urban spaces are inclusively designed. Public spaces that are safe, disability-friendly and accessible to women, children and the elderly are a tangible manifestation of a non-discriminatory city and strengthen social cohesion among citizens. Together, these three indicators are important benchmarks in assessing a city's success in creating an inclusive and equitable environment for all.

Population Demographics

Before exploring efforts to enhance social inclusion, it is important to first understand the demographic composition of vulnerable groups in Indonesia. Aside from individuals with disabilities discussed in the earlier section, this part provides percentage data based on age categories, specifically focusing on youth and the elderly.

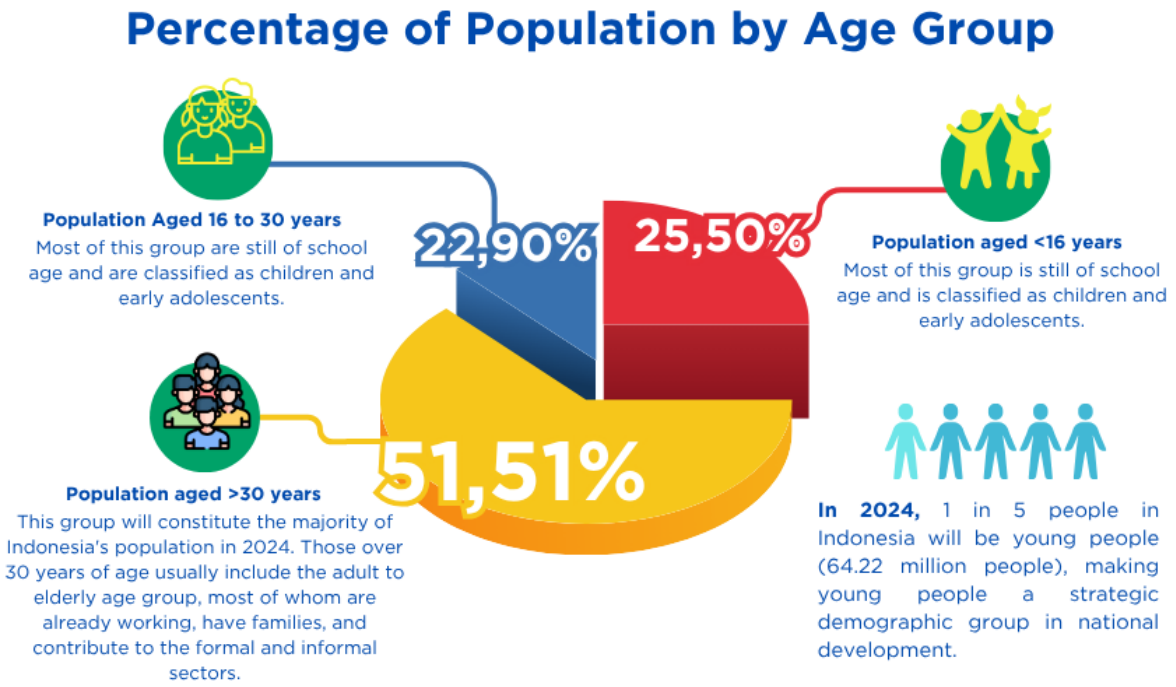


Figure 1.32 Percentage of Population by Age Group
Source: STATISTICS INDONESIA, 2024

Based on data from the 2024 National Socio-Economic Survey (Susenas), Indonesia has about 64.22 million youth, or about one-fifth of the total population. The youth sex ratio shows that there are 102 male youth for every 100 female youth, with a composition difference of

only 1.20 percentage points. Most of the youth live in urban areas (60.7%), while the rest are in rural areas (39.28%). In terms of education, the majority of Indonesian youth completed high school (40.94%), while only 11.36% went to university. There are still around 1 in 50 youth who never attended school or did not complete primary education. In the past decade, the percentage of youth has shown a downward trend of around 1.21 percentage points since 2015, which is in line with the downward trend in the national birth rate according to Population Census data, although the decline is not very significant.

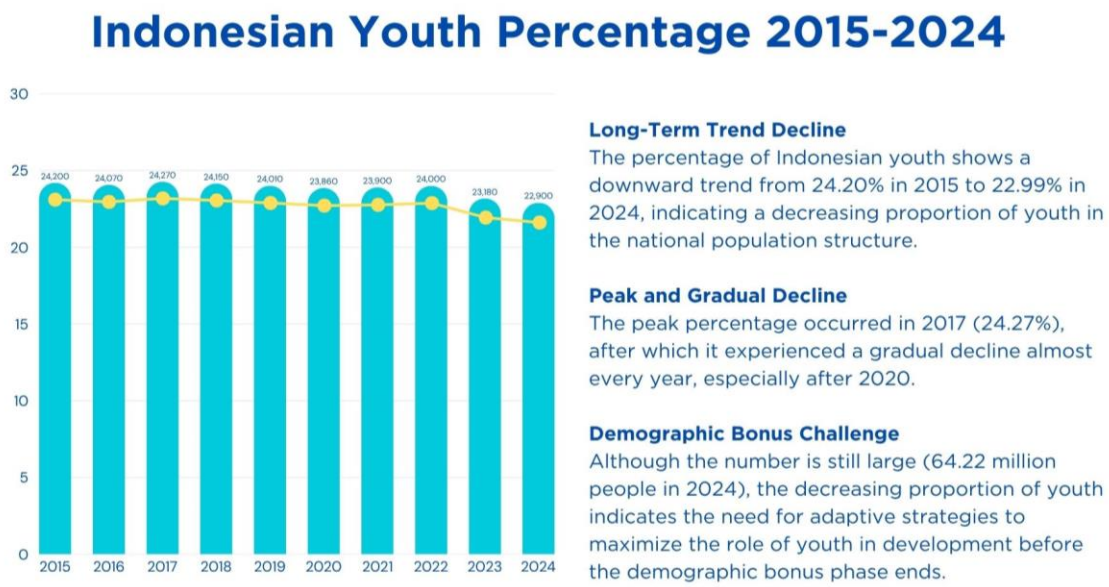


Figure 1.33 Indonesian Youth Percentage 2015-2024
Source: STATISTICS INDONESIA, 2024

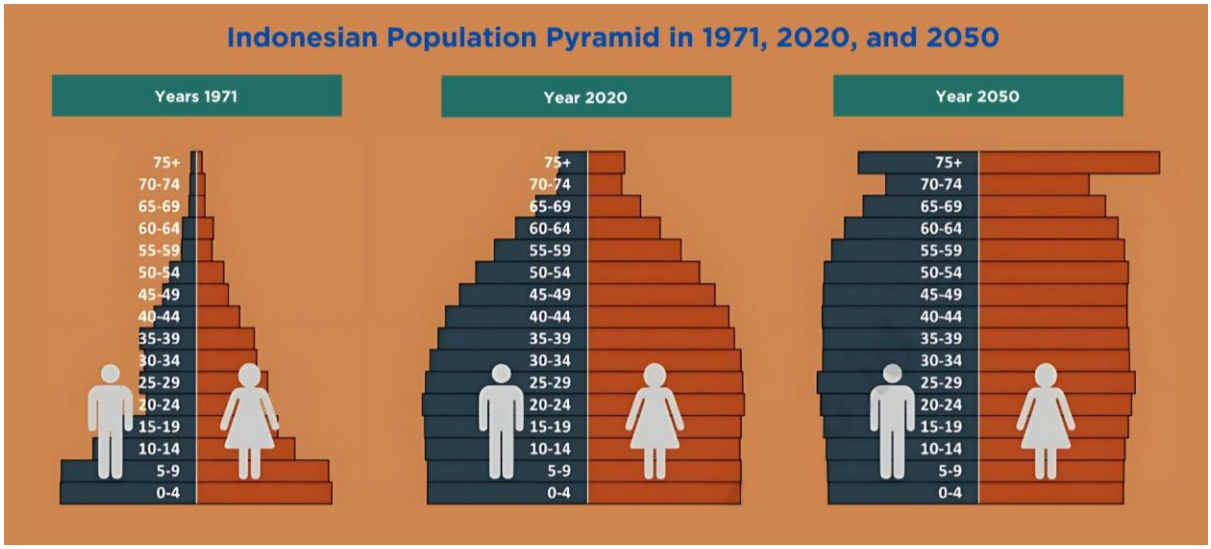


Figure 1.34 Indonesian Population Pyramid in 1971, 2020, and 2050
Source: STATISTICS INDONESIA, 2024

Since 2021, Indonesia has entered the phase of the ageing population structure, where about 1 in 10 people are elderly. The ageing population can present a second demographic bonus if the increasing number of elderly individuals remains productive and contributes to the national economy. However, it can also pose a development challenge when older adults are no longer productive and become part of the vulnerable group in society. Based on demographic aspects, 12.00% of Indonesia's population in 2024 will fall within elderly category with an elderly dependency ratio of 17.08. This figure means that every 100 people of

productive age (aged 15-59 years) must support at least 17 elderly people. By 2045, the elderly population is projected to reach 65.82 million or 20.31% of the total population.

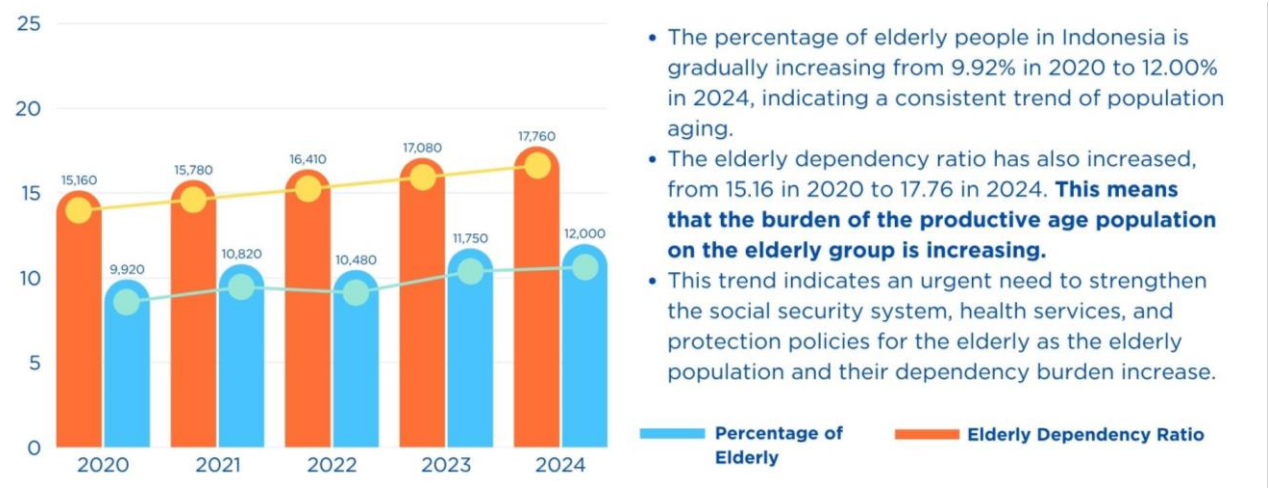


Figure 1.35 Trends in Percentage of Elderly and Elderly Dependency Ratio
Source: STATISTICS INDONESIA, 2024

The elderly are mostly female, live in urban areas, and are classified as young elderly (60-69 years old). Based on the classification of residence, more than half of the elderly live in urban areas 55.77%. The largest age composition of the elderly is the young elderly, namely the population aged 60-69 years at 63.29%.

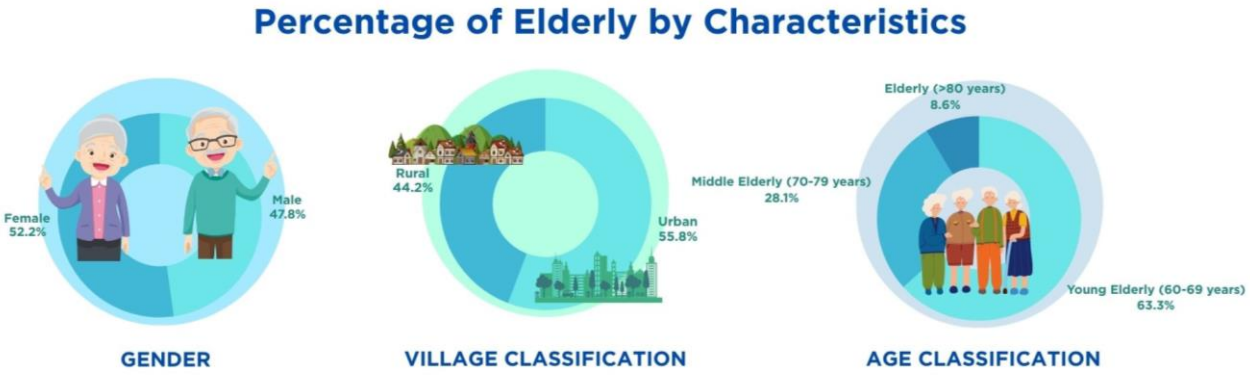


Figure 1.36 Percentage of Elderly by Characteristics
Source: STATISTICS INDONESIA, 2024

A total of 21 provinces have entered the phase of old population structure (elderly population that is already above 10%). Special Region Yogyakarta Province occupies the top position with an elderly percentage of 16.28%, where the highest in Sleman Regency currently reaches 15% of the total population of Sleman Regency.

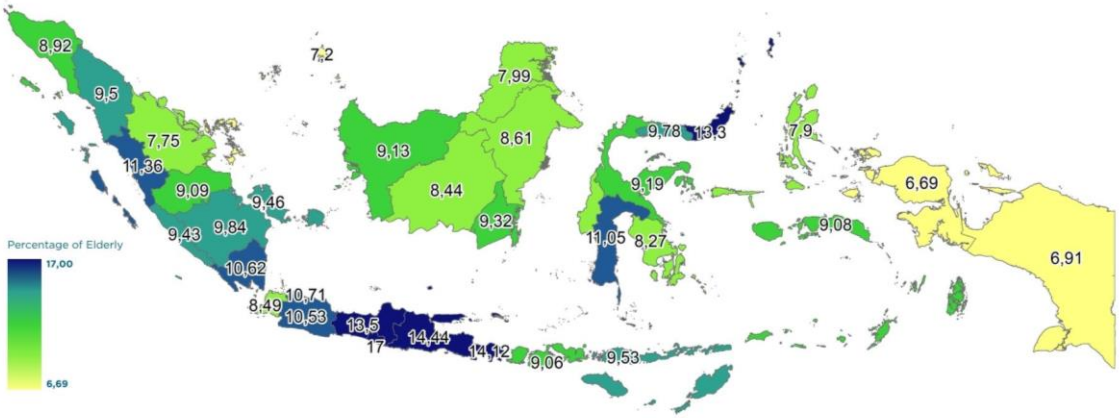


Figure 1.37 Percentage of Elderly by Province
Source: STATISTICS INDONESIA, 2024

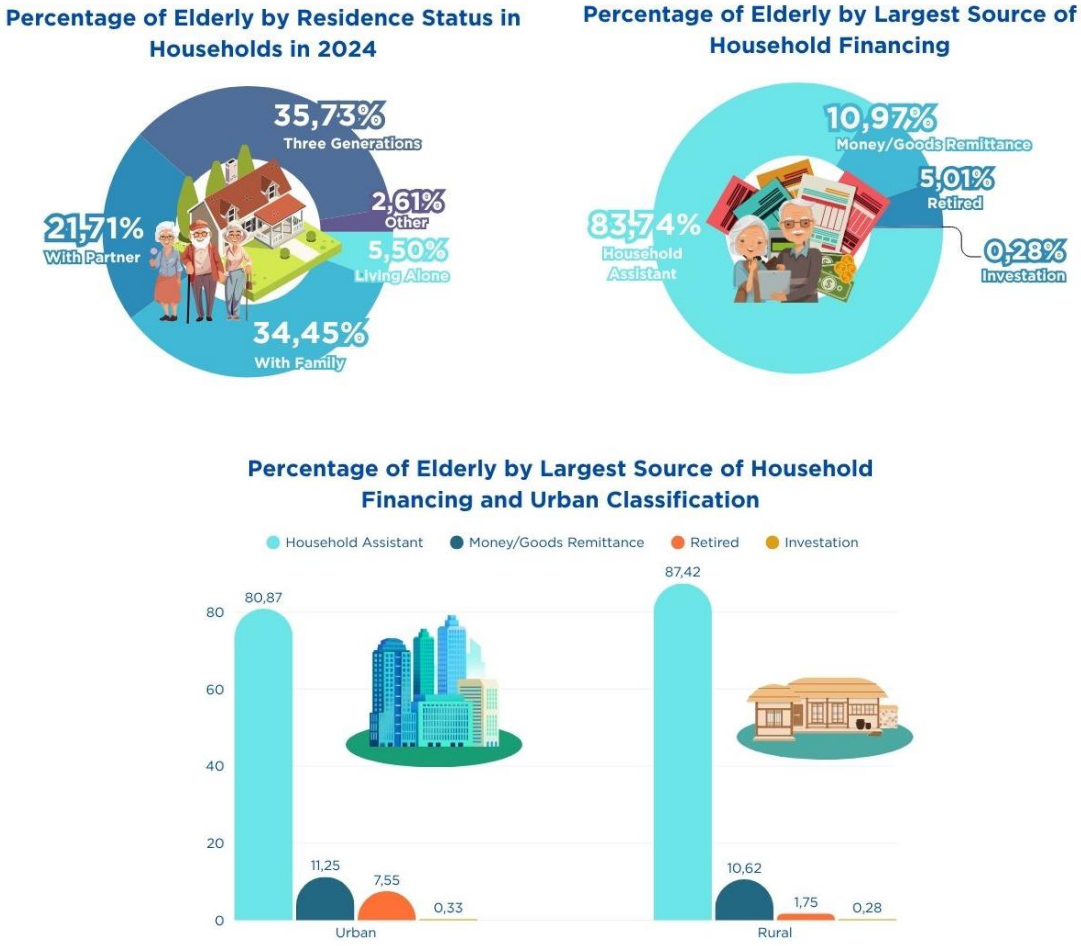


Figure 1.38 Percentage of Elderly by several characteristics (a) Living Status, (b) Source of Household Financing, and (c) Urban Classification
Source: STATISTICS INDONESIA, 2024

Based on the status of residence, the majority of the elderly live in households containing three generations (35.73%), and with family (34.45%). Elderly households are still very dependent on working household members to fulfil their daily needs, indicating that the main source of financing for elderly households comes from working household members, reaching 83.74%. As much as 10.97% of elderly households rely on remittances from other parties as the main

source of financing. Only a small proportion of elderly households whose main source of financing comes from pension guarantees, 5.01%. Less than one % of elderly households get their main source of financing from investments, such as deposits, royalties, shares, bank interest, etc.

The elderly represents one of the vulnerable segments of the population. Implementing welfare programmes for the elderly is crucial to ensure their well-being in old age. As the elderly population continues to grow, it brings specific challenges that must be addressed through well-targeted and effective policies. The government has determined that senior citizens must be given the opportunity to contribute to achieving the vision of Indonesia Emas 2045. This has been mandated in Presidential Regulation Number 88 of 2021 concerning the National Strategy for Elderly People. With this National Strategy on Humanity, the central and local governments can take the same steps to ensure that the elderly can remain independent, prosperous and dignified. Related to this, there are several points that become regional development targets related to humanity, including: (1) improvement of social protection, income security, and individual capacity; (2) improvement of health status and quality of life of the elderly; (3) development of community and elderly-friendly environment; (4) institutional strengthening of humanitarian programme implementers; and (5) respect, protection, and fulfilment of elderly rights.

The government's target to bring the Prosperous Elderly vision by 2024 has yet to be achieved. In the last five years, the percentage of elderly working in the formal sector has tended to stagnate. In 2024, there were 15.25% of the elderly working in the formal sector and this figure only increased by 1.08% points in five years. This figure is also still far below the target set, where in 2024 it is targeted that 50% of the elderly work in the formal sector. This achievement shows that the majority of the elderly work in the non-formal sector. When compared to the percentage of formal labour in the age group 15 years and over in 2023 which was 40.89% (STATISTICS INDONESIA 2024), the opportunity for the elderly to work in the formal sector is still low.

In 2024, there were 9.95% of elderly people living below the poverty line, this figure has decreased compared to the previous year. With achievements that have been below 10%, the government's target of 2024 in realising independent elderly has been achieved. Although national elderly poverty has reached the target, inequality still occurs in groups of elderly people living in rural areas, elderly women, and elderly people with disabilities, even the poverty rate for elderly people with disabilities reaches 14.75%.

Figure 1.39 Achievement of National Strategic Vision Indicators for Humanity
Source: STATISTICS INDONESIA, 2024

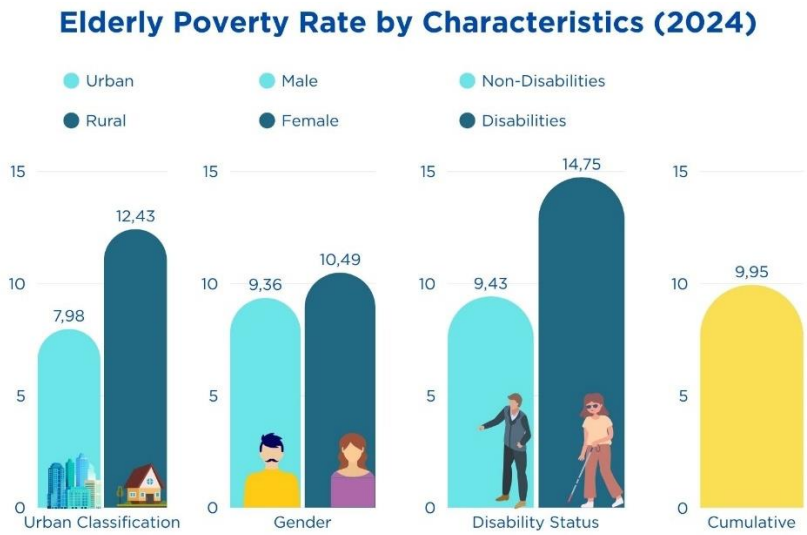


Figure 1.40 Elderly Poverty Rate by Characteristics (2024)
Source: STATISTICS INDONESIA, 2024

Over the past 6 (six) years, the percentage of elderly households who are Family Hope Programme (PKH) recipients has increased. In 2024, 16.94% of elderly households were recorded as PKH recipients. In urban areas, the percentage of elderly households that are still PKH recipients is 14.2%. Meanwhile, in rural areas, this figure is relatively higher at 20.37% of elderly households who are still recorded as PKH recipients.

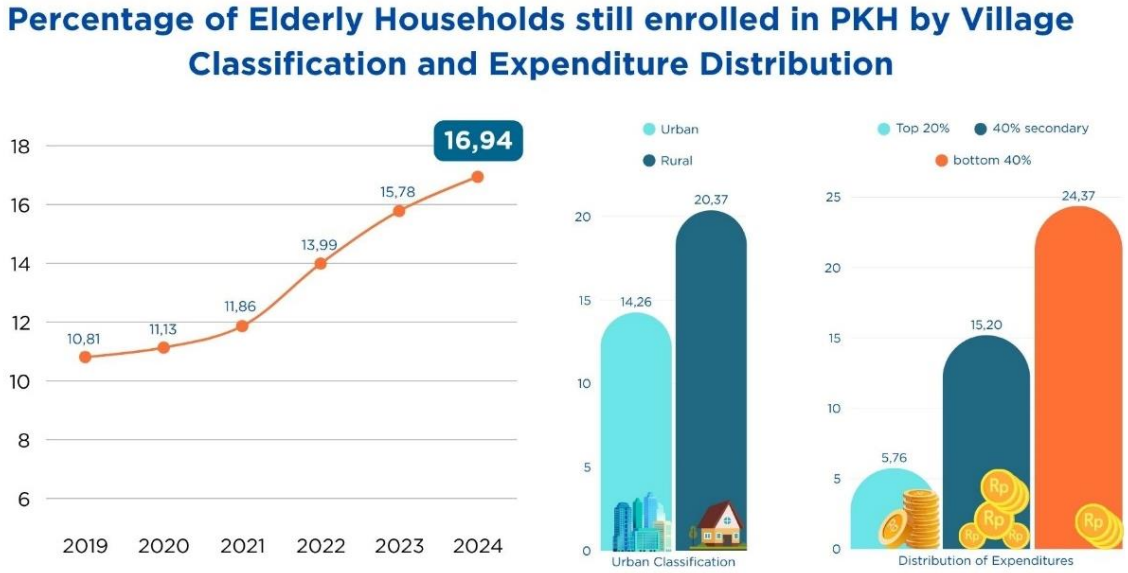


Figure 1.41 Percentage of Elderly Households still enrolled in PKH by Village Classification and Expenditure Distribution
Source: STATISTICS INDONESIA, 2024

In addition, the March 2024 Susenas recorded that 6% of elderly households received Assistance for Social Rehabilitation of the Elderly (ATENSI LU) in the past year. This figure increased by 3.27 percentage points compared to the previous year, relatively more significant than the increase in 2023. This increase illustrates the expansion of elderly households or families covered by the ATENSI LU programme. Elderly households in rural areas covered by the ATENSI LU programme are relatively larger than in urban areas (6.23% compared to 5.83%). In 2024, the percentage of elderly households that have received the basic food

programme is 25.89% and around 77.75% of the elderly have been covered by the National Health Insurance (JKN).

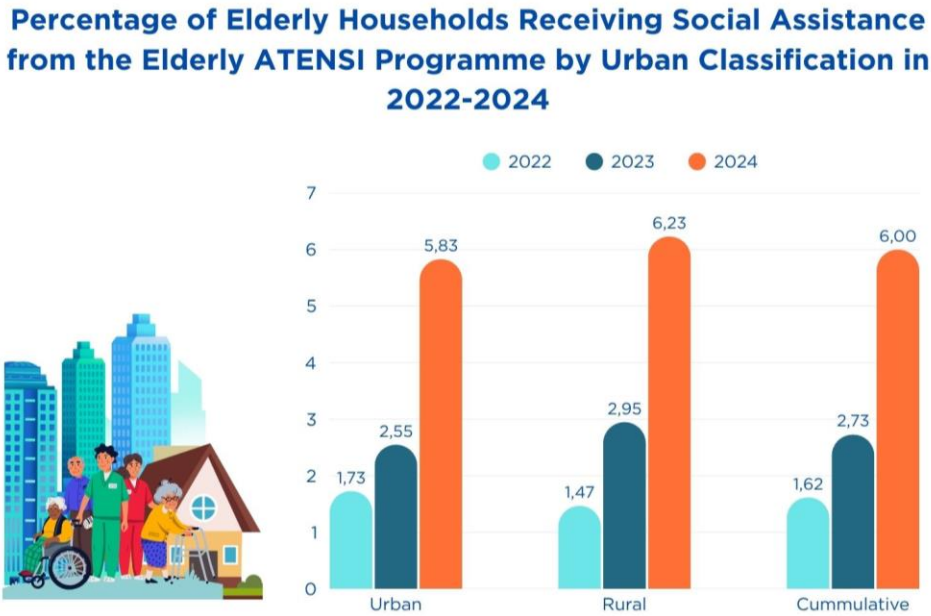


Figure 1.42 Percentage of Elderly Households Receiving Social Assistance from the Elderly ATENSI Programme by Urban Classification in 2022-2024
Source: STATISTICS INDONESIA, 2024

Property Ownership

Indonesia is committed to promoting increased security of tenure for all, enabling continuity of land and property rights, recognising security of tenure for women as key to their empowerment, and establishing effective administrative systems (NUA §35). The focus on land tenure reflects the recognition that land is the primary economic unit that forms the basis for its activities. It also recognises that women's access, ownership and/or control over land is critical to poverty reduction, food security, inclusiveness and overall sustainable development goals.

Data on women being recognised as having legal rights to inheritance and property ownership is useful for demonstrating social inclusion in housing. In the period 2021 to 2023, there is an increasing trend in the proportion of home ownership in both male- and female-headed households. In 2023, female-headed households recorded the highest proportion of home ownership at 86.81%, up from 82.04% in 2021 and 86.15% in 2022. Meanwhile, male-headed households also showed an increase from 80.92% (2021) to 84.49% (2023). This shows that female household heads consistently have a slightly higher homeownership rate compared to men. This difference, although not very large, has been fairly consistent in the last three years.

In terms of rent/lease, there is a general decrease in proportion, along with an increase in home ownership. Female households experienced a decline from 8.66% (2021) to 3.93% (2023) for rental/contract status. This is lower than male households, which fell from 8.66% to 5.22% over the same period. This proportion trend shows the success of national housing policies that do not differentiate access between men and women, even allowing increased access for female heads of households, which is in line with Indonesia's commitment in the New Urban Agenda to guarantee the right to adequate housing for all levels of society without gender discrimination, and support affordable and accessible housing for all.

Throughout the 2020-2023 period, property ownership by women is higher than that of men and has increased significantly especially after the impact of the pandemic began to subside in 2021-2023. In terms of contract/rent, there is a general decrease in proportion, along with the increase in home ownership. Female households experienced a decrease from 8.66% (2021) to 3.93% (2023) for rental/contract status. This is lower than male households, which fell from 8.66% to 5.22% over the same period. This proportion trend shows the success of national housing policies that do not differentiate access between men and women, even allowing increased access for female heads of households, which is in line with Indonesia's commitment in the New Urban Agenda to guarantee the right to adequate housing for all levels of society without gender discrimination, and support affordable and accessible housing for all.

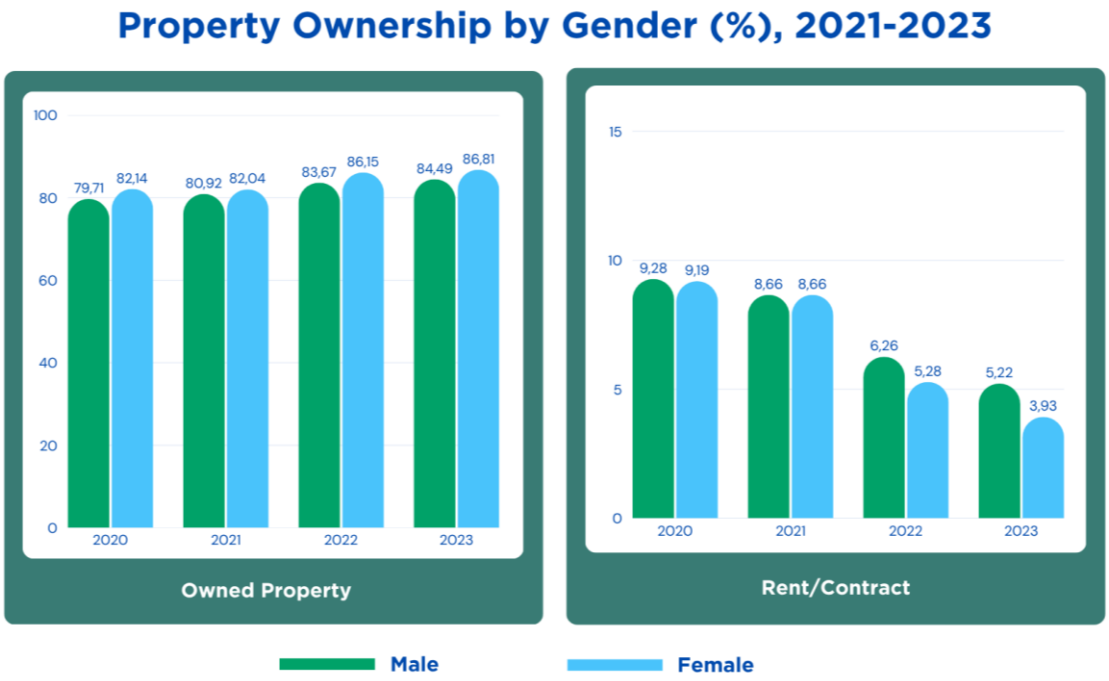


Figure 1.43 Property Ownership by Gender (%), 2021-2023
Source: STATISTICS INDONESIA, 2024

Indonesia has a national legal framework that prohibits discrimination in various aspects of life, including housing, access to public facilities and social services, based on race, colour, sex, language, religion, political opinion, national or social origin, economic status, birth or other status. In the context of property ownership, the Basic Agrarian Law (UUPA) guarantees property rights to land for every Indonesian citizen, without distinguishing between men and women. Women have full rights to own, buy, sell and manage property in their own name.

Data shows that during the 2021-2023 period, property ownership by women has increased significantly to 86.81%, higher than that of men. This change has been increasingly felt since the COVID-19 pandemic subsided. Based on data from National Savings Bank or *Bank Tabungan Negara* (BTN), of the total 173,476 units of Home Ownership Loans (KPR) disbursed in the 2020-2024 period, around 32.5% of them were given to women. Although this figure is still lower than that of men (67.5%), the trend reflects the increasing confidence of women in making financial decisions independently. Factors such as supportive government policies, increased financial independence, and post-pandemic lifestyle changes are also driving women's participation in the property sector. Currently, the majority of homebuyers in

Indonesia are millennials, reaching 76.7%, and the property market is increasingly accommodating the needs and preferences of women as primary consumers.

In terms of inheritance, equality between men and women in Indonesia is governed by three different legal systems, namely: (1) the Civil Code (KUHPerdata) which provides for equal distribution of inheritance for communities subject to Western civil law; (2) Islamic Law which generally stipulates women's share of inheritance at half that of men, based on the different economic responsibilities between the two; and (3) Customary Law which varies depending on the culture of each region. In some areas such as Minangkabau (West Sumatra), Flores, and Alor (East Nusa Tenggara), a matrilineal system prevails, where lineage and inheritance follow the mother, making daughters the main recipients of inheritance.

The New Urban Agenda calls for adequate housing for all (NUA §31). Such commitments can be achieved only if there is a removal of barriers to discrimination in housing. As the world's third largest democracy, Indonesia is strongly committed to democracy, and to upholding non-discriminatory laws and practices, especially towards vulnerable groups to achieve inclusive development. Indonesia has established the Indonesia Democracy Index (IDI) since 2009, and a province-based democracy index has been developed since 2010. Freedom from discrimination has increased from 90.74 in 2017, to 91.77 in 2018, and 92.35 in 2019, but declined again to 90.88 in 2020. The IDI scored 79.83 in 2021 which increased by 6.84 points to 86.67 in 2023.

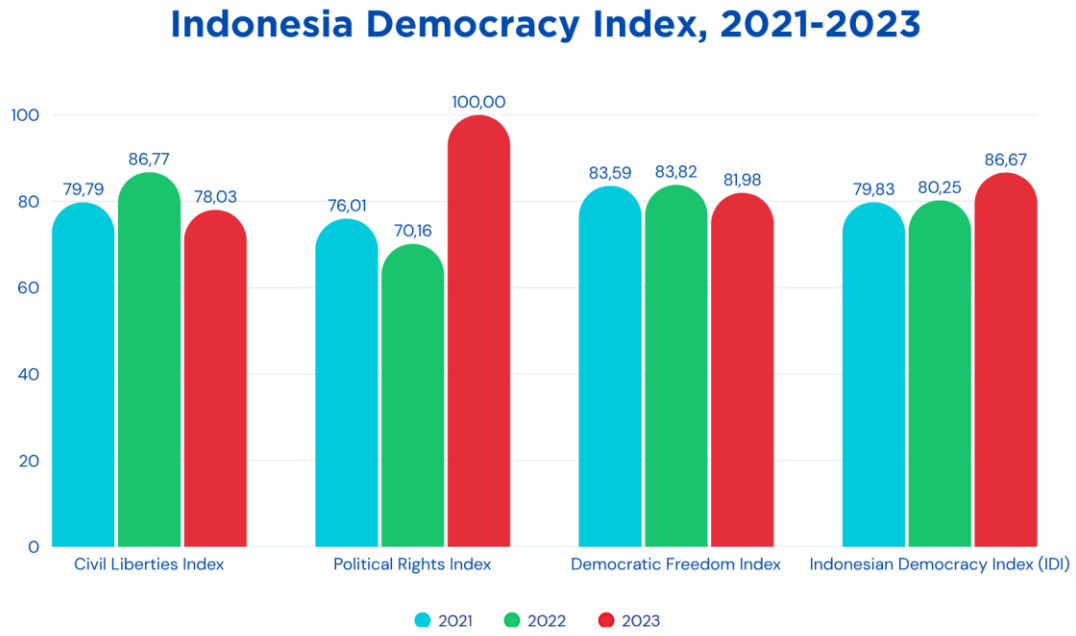


Figure 1.44 Indonesia Democracy Index, 2021-2023
Source: STATISTICS INDONESIA, 2024

Open Space for Public

The New Urban Agenda commits to promoting safe, inclusive, accessible, green and quality public spaces, and facilitating access to public spaces for people with disabilities (NUA §36, 37 & 53). Despite efforts to provide public open space, data on the average proportion of the city's built-up area that is open space for public use by all people, by gender, age, and persons with disabilities, as presented in the previous NUA report in 2021, is still unavailable. There are several reasons for this lack of data. Firstly, while some cities have included the total amount and area of green open space, they do not differentiate between private and public

spaces. Secondly, there are some methodological limitations of the three-step process defined in the NUA indicators. While it is possible to conduct spatial analyses to delimit city/urban areas and then identify public open spaces, it is difficult to identify public open spaces that may have hard surfaces compared to green areas that may be more easily identified. It is also difficult to estimate the total area allocated to streets which is expected to include alleys in Indonesia.

In Indonesia's densely populated urban areas, there is a large proportion of kampongs and mapping their alleys is challenging as many houses are built overhanging the alleys, making identification from aerial maps sometimes impossible. It is difficult to estimate the proportion of the population that has access to public open space within 400 metres walking distance of the total population in a city/urban area and disaggregate the population with access by gender, age, and disability.

Currently, the most accessible data on public open space is only in the form of green open space (RTH) but is not divided by public and private space functions. Green space management in cities and regencies in Indonesia during 2020-2024 showed a significant increase. This improvement is reflected in the data from the National Waste Management Information System (SIPSN) and the Adipura award organised by the Ministry of Environment and Forestry (KLHK). SIPSN data is sourced from the Adipura award database, the provisions of which are regulated in the Minister of Environment and Forestry Regulation Number P.76/MENLHK/SETJEN/KUM.1/10/2019 concerning Adipura. The RTH performance assessed includes the percentage of area, distribution and function of shade, arrangement and maintenance, and plant diversity. One clear indicator of improvement is the increasing number of cities reporting green space data. In 2020, SIPSN's green space data covers 61 cities, while in 2024, this number increases to 64 cities. This green space data can be accessed through https://sipsn.menlhk.go.id/sipsn/public/rth.

A comparison of green area per capita data between 2020 and 2024 shows significant progress across Indonesian cities in meeting the World Health Organisation (WHO) standard of 9m^2 green area per capita. The average green space per capita in Indonesia has increased from 22.6m^2/capita in 2020 to 35.80m^2/capita in 2024. In 2020, some cities already showed good performance in the provision of green area per capita. Palembang as a metropolitan city, for example, has met the WHO standard of 26.11m^2/capita. Some medium-sized cities such as Magelang, Blitar, Madiun, and Banjar have also managed to exceed 9 m^2/capita. In fact, Semarang City in Central Java provides about 66.13m^2 of green area/capita. However, on the other hand, many large cities and metropolises still face challenges. Cities such as Pontianak, Banjarmasin, Samarinda, Makassar, Padang, Jambi, Pekanbaru, Medan, and Batam still need to step up their commitment. Moreover, large cities and metropolises on the densely populated island of Java, such as Jakarta, Surabaya, Depok, Tangerang, South Tangerang, Bogor, Malang, Serang, and Cimahi, show low green area allocations, less than 2m^2/ capita.

Entering 2024, there is a fairly even improvement. The majority of small and medium cities remain consistent in meeting the WHO minimum standards. Some medium-sized cities that previously still needed to increase their commitment in 2020 have now successfully met WHO standards. Examples include Aceh, Langsa, Tanjung Pinang, Singkawang, Palangkaraya, Banjarbaru, Bontang, Kotamobagu, Palu, Pare-pare, and Kendari, as well as small cities such as Solok. What is most notable is the positive change in several large cities and megapolitans that in 2020 still needed to increase commitment, such as Padang, Jambi, and Malang, have now met the WHO minimum standards as well. Balikpapan is one of the big cities that managed to meet the standards. Most significantly, megapolitan cities such as Medan, and Surabaya, which in 2020 still have green areas per capita that need to be increased, have now successfully met WHO standards. This shows serious efforts from local governments in improving the quality of green spaces. Overall, this comparison shows that within four years,

many Indonesian cities have made efforts and succeeded in increasing their green area per capita, especially in big cities and megacities that were previously lagging behind.

In the previous reporting period, the Green City Development Programme (P2KH), launched by the Ministry of Public Works and Housing since 2011, officially ended in 2018 after running in more than 170 districts/cities. The programme aimed to encourage local governments to integrate sustainability and environmental principles in spatial planning through the preparation of Green City Action Plans (RAKH), and to provide a minimum of 30% green open space in urban areas. However, along with changes in policy direction and a more comprehensive approach to urban development, P2KH was no longer continued as a standalone programme. Instead, the spirit and basic principles of P2KH are now adopted in various new policies and initiatives, such as the *Sustainable Smart Cities* programme, *Cities Without Slums* (KOTAKU), and also integrated in the National Urban Strategy through the National Urban Policy (KPN) 2045. These initiatives emphasise the integration of ecological, social, and economic aspects of cities in a single planning unit, including the strengthening of green open spaces, climate risk management, and green infrastructure. Thus, although P2KH has formally ended, the principle of green cities is alive and well within the framework of sustainable urban development in Indonesia.

To improve social inclusion in public spaces, the Government of Indonesia, has issued several regulations related to persons with disabilities. Law No. 8/2016 on Persons with Disabilities states that persons with disabilities, among others, have the right to education, employment, public and social services, and freedom from discrimination. This law has been further elaborated in Government Regulation (PP) No 70/2019. Planning, Implementation, and Evaluation of Respect, Protection, and Fulfilment of the Rights of Persons with Disabilities and Minister of National Development Planning/Head of Bappenas Regulation No. 3 of 2021 which also contains the National Action Plan for Persons with Disabilities (RAN PD) 2021-2024. The physical elaboration is listed in Government Regulation No. 42 of 2020 concerning Accessibility to settlements, public services, and protection from disasters for persons with disabilities. In public facilities, access for persons with disabilities is ensured by the stipulation of the Minister of Public Works and Housing Regulation Number 14 of 2017 concerning Requirements for Accessibility in Buildings and the latest Government Regulation Number 16 of 2021 concerning Buildings. These two regulations have determined the dimensions and specifications of building elements to be accessible to persons with disabilities, the elderly, women, and children.

1.1.1.4. Ensure equal access to public spaces including roads, sidewalks, and bicycle lanes

Indonesia is committed to encourage the provision of safe, inclusive, accessible, green and quality public spaces, including roads, sidewalks, and cycling paths, and parks that are multifunctional areas for human interaction and inclusion, social, health, and well-being (NUA §37). In addition, Indonesia also commits to encourage the provision of well-designed streets, which support walking and cycling capabilities that contribute to improved health and well-being (NUA §100), and to promote affordable, accessible, and sustainable urban mobility by prioritising walking and cycling over motorised transport (NUA §114). To that end, Indonesia also encourages all levels of government to develop their transport and mobility infrastructure financing and systems, such as mass rapid transit systems, integrated transport systems, and safe walking and cycling infrastructure, as well as technology-based innovations in transport with the aim of reducing congestion and pollution while achieving efficiency, connectivity, accessibility, health, and quality of life (NUA §118).

The commitment has been legalised in regulations and implemented at the sub-national level with some good practices. Law No. 11 of 2020 on Job Creation affirms the Government of Indonesia's commitment to create public spaces that does not only function as means of

transport, but also social spaces, green spaces, and spaces to fulfil people's needs, with characteristics that are safe, inclusive, accessible, green, quality and multifunctional. Although this Law does not explicitly define "public space" in detail, its various provisions have direct implications for the management and utilisation of these spaces.

Overall, comprehensive and integrated data on the total length of sidewalks across Indonesia is still unavailable. Nevertheless, certain regions have already collected this information, such as DKI Jakarta with a recorded sidewalk length of 610 km, as well as 87.1% of road sections that have sidewalks. In this province, the length of bicycle lanes built from 2012 to 2023 has reached 313.607 km. This development includes protected bicycle lanes, bicycle lanes on sidewalks, and shared bicycle lanes. The ratio of the length of bicycle lanes to the total length of roads in DKI Jakarta is around 4.88% (313.607 km of the total road length of 6,432 km).

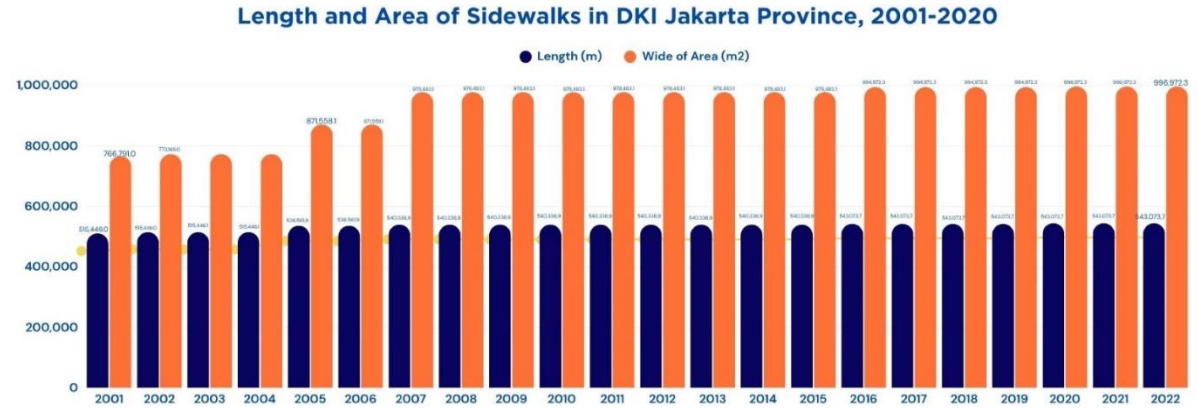


Figure 1.45 Length and Area of Sidewalks in DKI Jakarta Province, 2001-2020
Source: STATISTICS INDONESIA, 2024

Source: STATISTICS INDONESIA, 2024Despite efforts to improve sidewalks and bicycle lanes, statistical data on the proportion of the length of sidewalks and bicycle lanes to the length of roads in most cities is not available, except in Jabodetabek. The development of bicycle lanes in the Jabodetabek area shows that DKI Jakarta consistently leads with the total length of bicycle lanes on national roads increasing significantly, from 63 km in 2019, 78 km in 2020, 115 km in 2021, 195 km in 2022, to reach 314 km in 2023. Meanwhile, other regions such as Bekasi Regency and Bekasi City have shown consistency in building 18 km of lanes since 2021. In 2023, other cities/districts also began to record contributions, including Bogor Regency (13 km), Depok City (12 km), and Bekasi Regency (11 km).

All Jabodetabek areas including Depok City, Bogor Regency, Bekasi City, Bekasi Regency, and DKI Jakarta have bicycle lanes, although with variations in scale and development. This data reflects efforts to improve sustainable mobility and reduce carbon emissions in dense urban areas, although implementation is uneven. DKI Jakarta leads the way with the longest bicycle lane network and the most aggressive expansion, in line with the provincial government's vision of a cycling-friendly city. These infrastructure improvements are important in driving urban lifestyle change as well as a strategic step in mitigating climate change and reducing traffic congestion.

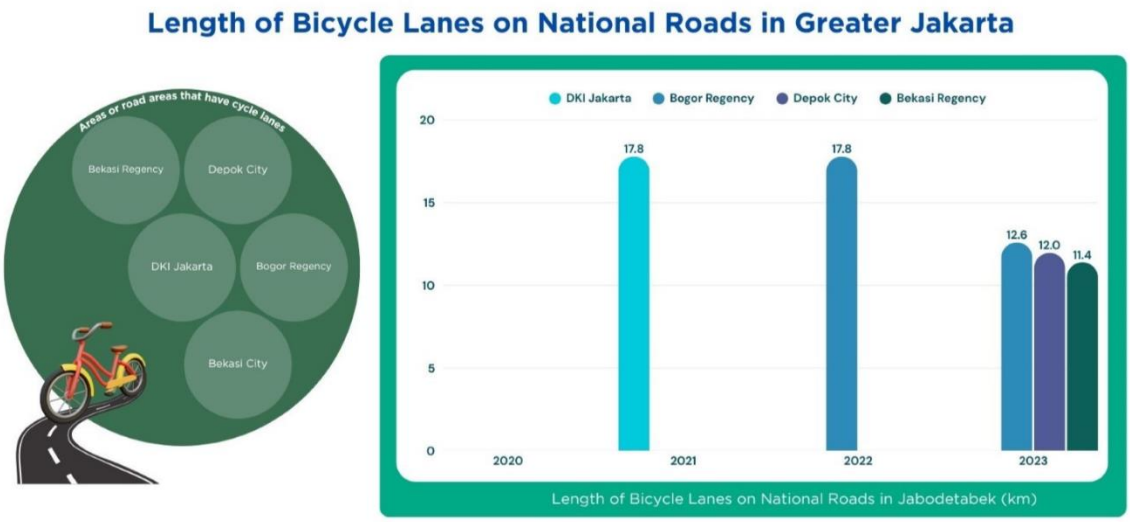


Figure 1.46 Length of Cycle Lanes on National Roads in Greater Jakarta
Source: STATISTICS INDONESIA, 2024

National Road Length

The length of national roads in Indonesia continues to increase from year to year, indicating the government's efforts in developing road infrastructure to improve connectivity between regions. The results of vital infrastructure development have increased significantly, both in quantity and quality. The length of roads previously recorded at 26,853 km in 1996, increased by 20,750.39 km to 47,603.39 km in 2022 (Decree of the Minister of Public Works and Housing No. 1688/KPTS/M/2022 on Determination of Road Segments According to Their Status as National Roads). The condition of National Roads in Indonesia in general in 2024 is in good condition with a percentage of 95.22%, an increase from 2023 with a percentage of 94.18% and from 2022 with 92.20%. The province with the largest percentage of steady roads is Bangka Belitung Islands Province, which is 99.85%. While the province with the lowest percentage of steady condition is Papua Province, which is 77.56%.

Figure 1.47 National Road Length
Source: Ministry of Public Works, 2024

In order to encourage national economic growth and achieve connectivity between regions, the Government has set several targets in the implementation of national roads. Setting development targets is necessary because road infrastructure contributes to improving regional connectivity and facilitating access to the distribution of goods and services, which will increase economic activity. Therefore, national road indicators are not only seen in terms of stability but also the level of accessibility, travel time, condition rating and safety rating of national roads. The accessibility level of national roads in 2024 reached 84.06% with a travelling time of 2.14 hours/100 km. This trend increased from 2023 to 83.95% with travel time mainly on main cross-island roads reaching 2.16 hours/100 km. The national road condition rating in 2023 reached 2.57 while the national road safety rating indicator in 2023 reached 2.89.

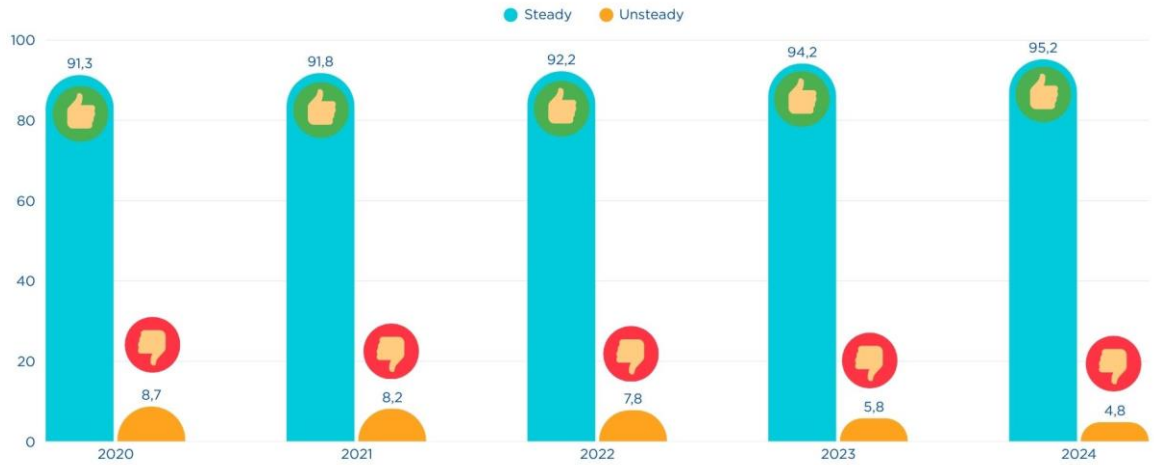


Figure 1. 48 National Road Stability Trends
Source: Processed from the Directorate General of Highways of the Ministry of Public Works

Provincial Governments and municipalities also have authority over the implementation of road infrastructure, namely Provincial Roads and Regency/City Roads as stipulated in Law No. 2 of 2022 concerning Roads. The authority in the implementation of roads includes regulation, guidance, development, and supervision of roads. The total length of regional roads in 2023 reached 459,703.91 km, consisting of 48,486.81 km of provincial roads and 411,217.1 km of district/city roads. In general, the stability of local roads in Indonesia is in a stable condition, reaching 71.33% stable for provincial roads and 57.9% stable for district/city roads.

On provincial roads, the province with the highest road stability is South Sumatra with a percentage of 92.24% or 1,396.17 km. While the province with the lowest provincial road stability is North Kalimantan with a percentage of 14.15% or 120.53 km. On Regency / City Roads, the province with the highest stability of district / city roads is in West Java with a percentage of 81.89% or 13,914.44 km. Meanwhile, the province with the lowest district/city road stability is in Central Papua with a percentage of 21.45% or 719.17 km.

Figure 1.49 District Road Stability Trends
Source: Processed from the Directorate General of Highways of the Ministry of Public Works (February 2024)

1.1.2 Access to Adequate Housing

Access to adequate housing is fundamental to supporting social and economic well-being, reducing inequality, and improving quality of life, especially amidst regional disparities. The provision of safe, affordable housing equipped with basic services can improve quality of life, improve health, and reduce social inequality. The government has launched various programmes such as the One Million Houses Programme, the Housing Financing Liquidity Facility (FLPP), Tapera, as well as assistance for self-help and special purpose houses. Rising property prices, high reliance on government financing, and low penetration of mortgage loans to GDP are key challenges to housing affordability. The government is also expanding interventions through slum alleviation through the Cities Without Slums (KOTAKU) programme and the Thematic Special Allocation Fund (DAK), as well as strengthening the guarantee of land ownership rights through the Complete Systematic Land Registration (PTSL) programme and digital certification. Housing provision has been implemented through various schemes and efforts, including with the collaboration of financial institutions and private partnerships. Strengthening housing policy is also realised through integration in spatial plans and regional strategic documents, such as the Housing and Settlement Area Development Plan (RP3KP). Commitment to the principles of inclusiveness and sustainability in line with the New Urban Agenda is emphasised through a focus on vulnerable groups, slum reduction, and promotion of gender and regionally equitable home ownership. Socialisation of decent housing standards has also been conducted to the wider community to provide decent housing and basic infrastructure.

In general, the distribution of uninhabitable houses in Indonesia shows high inequality between regions in terms of access to adequate housing. The highest percentage of uninhabitable houses (RTLH) is found in Papua Pegunungan at 97.79%, reflecting high limitations in infrastructure and basic services. In contrast, East Kalimantan recorded the lowest percentage of uninhabitable houses at 27.74%, indicating progress in development and more equitable access. However, the number of families living in uninhabitable houses is not always proportional to the percentage; East Kalimantan, despite its low percentage, still has a high number of 273,357 families living in uninhabitable houses, signalling challenges at the population scale. Access to adequate housing also appears to be more concentrated in developed regions such as Java and parts of Sumatra, where infrastructure support and housing programmes are more effective. Meanwhile, eastern parts of Indonesia - particularly mountainous regions and islands - encounter serious challenges in meeting decent housing

standards due to limitations in basic infrastructure such as clean water, sanitation and accessibility.

Figure 1.50 Distribution of uninhabitable housing access in Indonesia by 2022
Source: Processed from Bappenas Sepakat (https://sepakat.bappenas.go.id/)

1.1.2.1 Ensure access to decent and affordable housing

In line with the New Urban Agenda that emphasises the principle of "no one left behind" in urban development, the Indonesian government seeks to ensure decent and affordable housing for all people. The national housing policy is set out in the Ministry's Strategic Plan and strategic programmes such as the One Million Houses Programme and various credit subsidy schemes. The liveability standard in the policy document emphasises that every house must have basic facilities (water source, sanitation, energy, etc.) and not burden the purchasing power of low-income families.

Access to adequate and affordable housing has three indicators: 1) The average amount of money spent on housing and transport per household as a percentage of the average annual income of renter households; 2) The ratio between the average free market price of a dwelling unit and the average annual income of the household; and 3) The percentage of people living in unaffordable housing (the percentage of people living in households that spend such a large proportion of their income on housing that they have problems budgeting for their other needs). Of these indicators, the ratio between the average free market price of a dwelling unit and the average annual household income is still not available. Therefore, increasing per capita income is the first key to realising access to decent and affordable housing.

Economic Conditions and Community Income

Indonesia's economic growth has strengthened again post-pandemic. Based on STATISTICS INDONESIA data, GDP per capita rose from IDR56.9 million in 2020 (economic contraction of 2.07%) to IDR62.2 million in 2021, then IDR71.0 million in 2022, IDR75.0 million in 2023, and reached around IDR78.6 million in 2024.

The increase in income reflects the economic recovery (in 2022 it grew by 5.31%, 2023 by 5.05%, and 2024 by 5.03%). These figures reflect positive national economic growth as well as an increase in people's productivity. This is because, during these three years, Indonesia recorded positive economic growth. In 2022, economic growth reached 5.31%. However, income growth still needs to be balanced with controlling housing cost inflation.

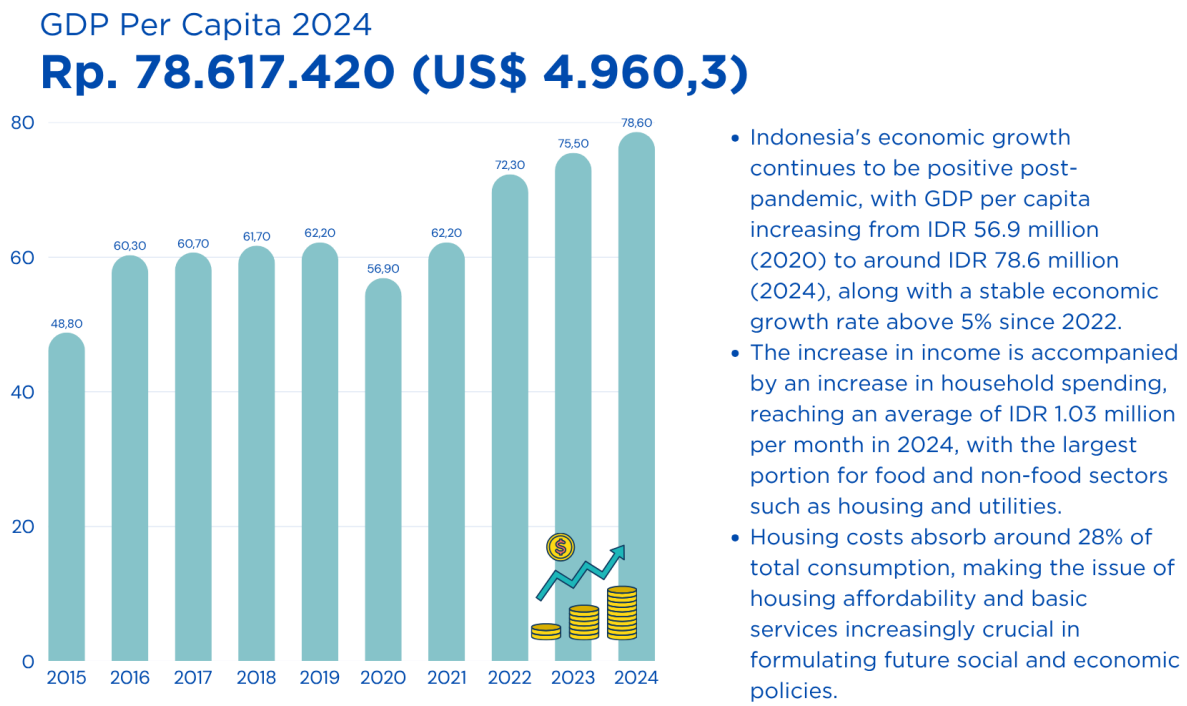


Figure 1.51 GDP per capita in 2024
Source: STATISTICS INDONESIA, 2024

Based on expenditure data by group of goods, STATISTICS INDONESIA noted that in 2024 the average expenditure of the community was around IDR 12.34 million per year (IDR 1.03 million per month), up 3.7% YoY. Of the total monthly expenditure, the largest portion is for primary needs: food (IDR 751,800) and non-food (IDR 748,800). The non-food sector is dominated by housing, electricity, fuel and water costs of around IDR391,750 per month. With this portion, the average expenditure on non-food is relatively large (around 28% of total consumption).

Overall, the data reflects the dynamics of the household economy in Indonesia, which is influenced by factors such as income growth, price inflation of basic goods, and changes in people's consumption patterns. Therefore, the issue of affordability of housing and basic services is becoming increasingly relevant in the formulation of future social and economic policies.

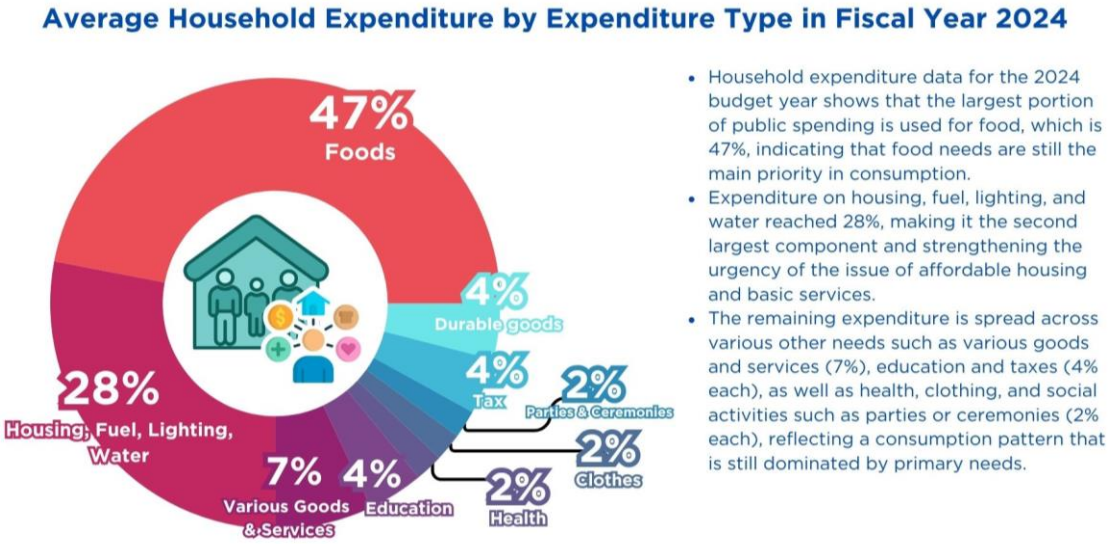


Figure 1.52 Average Household Expenditure by Expenditure Type in Fiscal Year 2024
Source: STATISTICS INDONESIA, 2024

Property Prices and Housing Costs

In general, the distribution of home ownership in Indonesia in 2024 shows that the province with the highest percentage of households owning their own house is West Sulawesi, which is 94.20% or equivalent to 304,000 households. Meanwhile, the province with the lowest percentage is DKI Jakarta with 54.44% or equivalent to 1,577,000 households. In terms of numbers, DKI Jakarta remains one of the regions with a large number of households, although the level of home ownership is relatively low compared to other provinces. This data reflects the gap in access to housing ownership between urban and rural areas, mainly due to land constraints, high property prices, and population mobility dynamics.

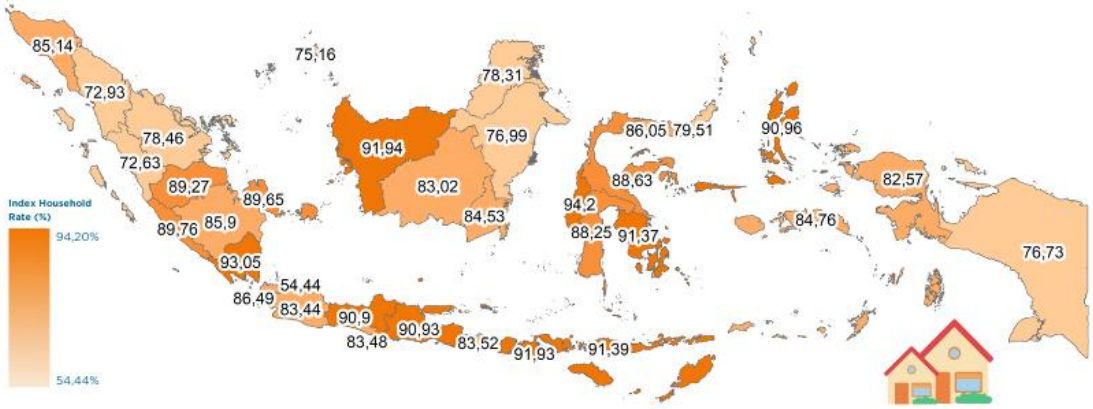


Figure 1.53 Percentage Distribution of Home Ownership in 2024
Source: https://sepakat.bappenas.go.id/

Property prices in Indonesia, based on data from the Survey of Residential Property Prices (SHPP) conducted in 51 selected districts/cities, show a steady upward trend. STATISTICS INDONESIA (Property Price Census) data recorded that the March 2024 IHPP (Residential Property Price Index) rose by 2.76% YoY; the house price index rose by around 2.97% (gated cluster +3.07%; ungated cluster +4.83%; non-cluster +1.03%) and apartment prices declines by -1.03%. Increases in mortgage interest rates, the cost of building materials, and land prices

have also put pressure on affordability. The STATISTICS INDONESIA survey cited an increase in land prices at development sites of around 5% YoY (March 2024 vs 2023). Meanwhile, building material prices also increased by 17.7% (2019-2024), while house prices rose by 11.2%, and apartments by 5.5%.

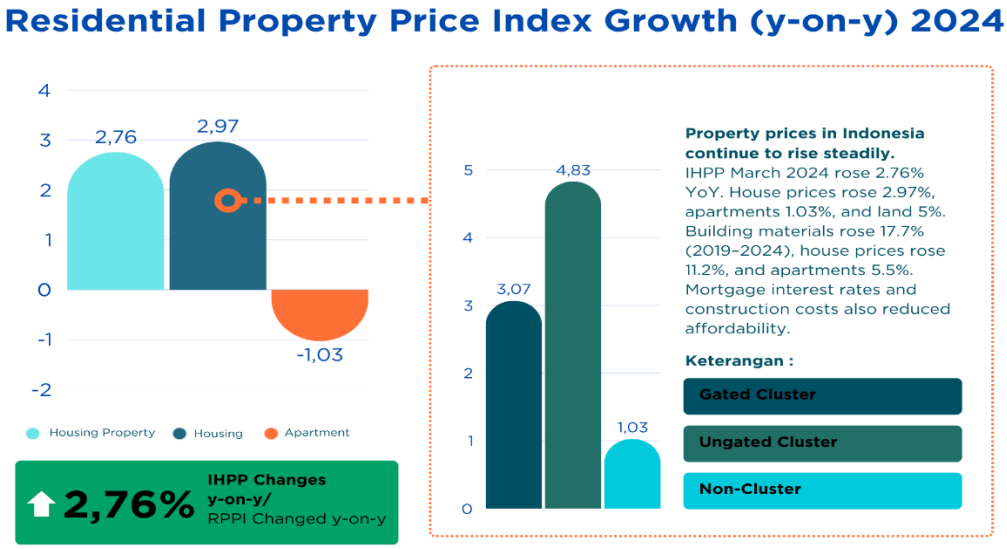


Figure 1.54 Residential Property Price Index Growth (y-on-y) 2024
Source: STATISTICS INDONESIA, 2024

The Wholesale Price Index (IHPB) for the household building sector also tends to rise (for example, in March 2024 it rose 0.85% MoM). Cumulatively since 2019, the IHPB for buildings rose by around 10.9%, supported by rising prices of building materials. Rising property prices that are out of balance with incomes are a major challenge to housing affordability, especially for low-income earners.

In general, residential property prices show an upward trend from year to year. Even during the COVID-19 pandemic in 2020 and 2021, property prices generally continued to rise. This is due to the high demand for housing in line with population growth and the younger generation's need for housing, amidst the limited supply of houses. Another factor fuelling price increases is the rise in land prices and building materials. The survey shows that the average increase in land prices in project development areas being surveyed reached 5% in March 2024 compared to March 2023. This figure is calculated as an unweighted average.

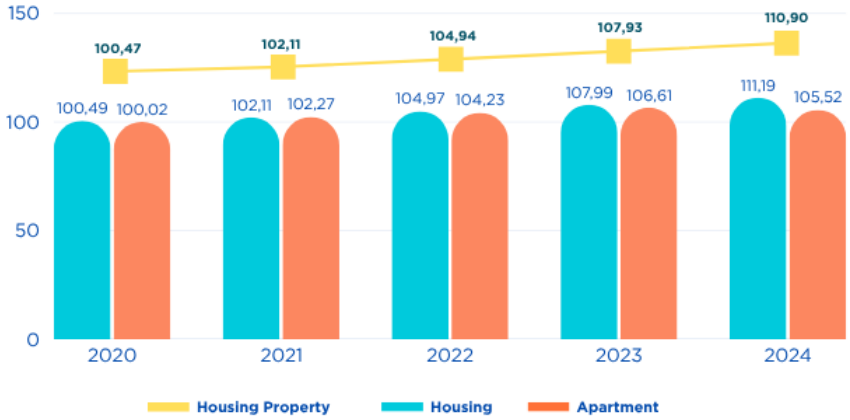


Figure 1.55 Residential Property Price Index 2020-2024
Source: STATISTICS INDONESIA, 2024

Percentage of People Living in Unaffordable Housing

This indicator measures the percentage of the population living in households where housing expenditure exceeds 30% of monthly income. Households that spend a large proportion of their income (≥30%) on housing costs are considered to be facing housing unaffordability, as they have limitations in allocating budgets for other basic needs such as food, education and health. The data for this indicator still refers to the expenditure data by goods group presented at the beginning of the subchapter.

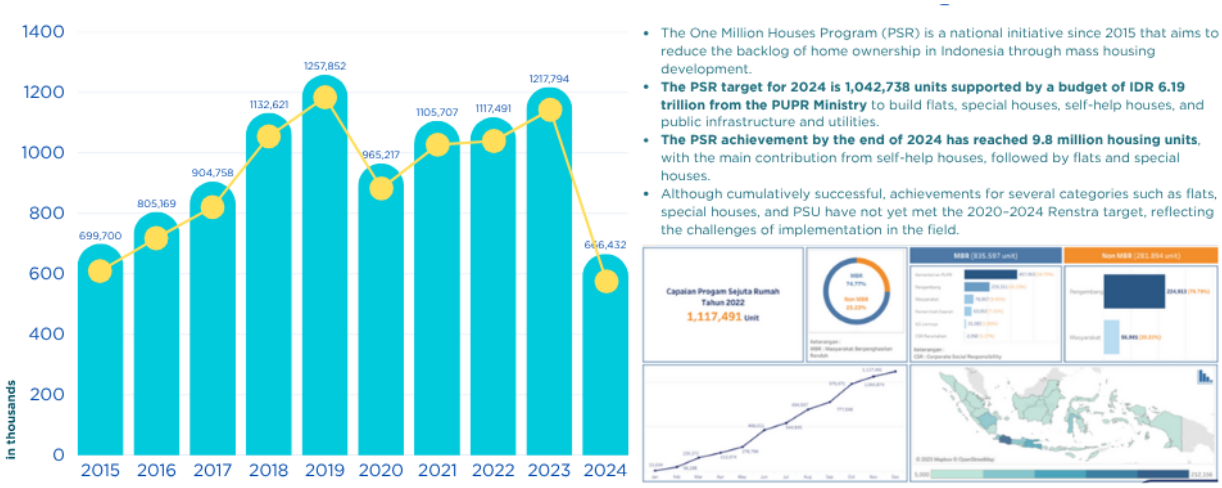


Figure 1.56 Output of the 2015-2024 Million Houses Program
Source: Ministry of Public Works, 2024; https://data.pu.go.id/

The One Million Houses Programme (PSR) was launched in 2015 as a national initiative to increase access to decent and affordable housing for all levels of society, especially low-income families. Since its launch, the programme has involved various parties, including Ministries/Institutions (K/L), Local Governments (Pemda), housing developers, as well as the participation of self-help communities and businesses through *Corporate Social Responsibility* (CSR) programmes. PSR has a target of building 1,042,738 housing units by 2024 and is one of the National Strategic Programmes that aims to reduce the *backlog* of home ownership in Indonesia.

In 2024, the Ministry of Public Works and Housing (PUPR) allocates a budget of IDR 6.19 trillion for the housing sector, which is used for the construction of flats, special purpose houses, self-help houses, and infrastructure, facilities, and public utilities (PSU). Until the end of 2024, PSR achievements have reached 9.8 million units, consisting of 1.49 million units of self-help houses, 40,347 units of special purpose houses, and 71,731 units of flats. However, this achievement has not met the target in the Ministry's Strategic Plan 2020-2024, which stipulates the construction of 51,340 units of flats, 10,000 units of special purpose houses, 813,660 units of self-help houses, and 262,345 units of PSU. This difference shows the challenges in achieving the set targets, although PSR has succeeded in providing nearly 10 million housing units for the people of Indonesia.

The implementation of PSR has shown interesting trends and dynamics throughout its journey. The years 2019 and 2023 became the highest milestones of PSR achievements, showing positive momentum in the provision of housing. However, the COVID-19 pandemic in 2020 caused a drastic decline in housing construction progress. In addition, CSR contributions from businesses also tended to be minimal during this period. Nonetheless, there is good news. Community participation, especially in self-help housing schemes, increased significantly in

2022-2023. This increase in participation greatly supports the achievement of the PSR national target, showing the great potential of collaboration between the government and the community.

Housing Financing Programme and System

Affordable and adequate housing is defined as housing that meets the criteria of building safety, minimum floor area, and health for its occupants, and is affordable for all income levels (Law No. 1/2011 on Housing and Settlement Areas). Government programmes for affordable housing are mostly aimed at low-income households, those who have limited purchasing power to meet their housing needs and require government assistance.

In the context of housing provision in Indonesia, it is important to first understand the basic concept of housing finance, which includes funding sources and subsidy mechanisms. Forms of housing subsidies from the Ministry of Public Works include grants and various financing facilities, such as the Housing Financing Liquidity Facility (FLPP), Down Payment Assistance Subsidy (SBUM), Interest Difference Subsidy (SSB), subsidised Home Ownership Loans (KPR), Savings-Based Housing Financing Assistance (BP2BT), Public Housing Savings Program (TAPERA), and Housing Microfinance Program.

The most common scheme is Kredit Pemilikan Rumah (KPR) with full financing from private funds, where interest rates follow the market mechanism. Under certain economic conditions, market interest rates can be very high and tenors tend to be short, making monthly instalments difficult for low-income households. To overcome this, the government intervenes through several subsidy schemes. One of them is the Interest Difference Subsidy (SSB), where the government covers the difference between market interest and the fixed interest paid by the debtor. Although it eases the burden on the community, this scheme risks creating a long-term fiscal burden because it is sourced from the state budget. Another alternative is the FLPP scheme, where subsidised funds from the state budget are channelled to banks at *low cost of* funds, and the funds must be returned by the banks. When FLPP is *blended* with commercial funds, the interest rate charged to debtors can be lowered, creating a more sustainable financing solution. Through this approach, the government seeks to maintain a balance between housing accessibility for the low-income population and fiscal sustainability.

Until 2024, the Ministry of Public Works was responsible for determining the income levels of low-income households that qualify for government subsidies as beneficiaries. This task, along with the general scope of housing provision, is now delegated to the Ministry of Housing and Settlement Areas. The determination of these beneficiaries still refers to the Decree of the Minister of PUPR Number 242 of 2020 which sets a maximum income limit of IDR 8 million[4] , an interest rate of 5%, a maximum subsidy of 5%, and a maximum tenor of 20 years. The housing price limit is set for landed houses (building area 21-36 m², land area 60-200 m²) based on region, and apartment units (floor area 21-36 m²) based on construction costs per province.

In the provision of housing for low-income people who obtain subsidised mortgages, the majority of residential units are built by the private sector. These private developers adhere to the government's regulations regarding price ceilings, technical specifications, and minimum house size in accordance with the requirements of subsidy programmes, such as FLPP. The

[4] Low-cost housing is accessible to those with a low monthly income; couples with an income of 8 million IDR per month; and higher income of 1.5 - 2 million for residents of Papua and West Papua.

government sets these limits to ensure that the houses built remain affordable for the low-income population while still meeting eligibility standards. In addition, Perum Perumnas as the main SOE in the housing sector takes part in the development of low-income housing together with a number of other SOEs and BUMDs, especially those with property or construction lines, albeit on a smaller scale than the private sector. This collaboration shows that the provision of subsidised housing is the result of synergy between the public and private sectors, while still being based on policies set by the central government.

Fiscal assistance and tax incentives were also provided to increase community access to decent and affordable housing. One of the main policies is the exemption of Value Added Tax (VAT) for the delivery of subsidised houses, which directly reduces the selling price of houses for MBR. In addition, the government also provides an exemption from the Fees for Acquisition of Land and Building Rights (BPHTB) as stipulated in Article 6 paragraph (2) letter j of Government Regulation Number 49 Year 2022. This incentive applies to subsidised houses with a maximum price of Rp240 million, thus easing the burden of initial transaction costs for the community. Not only that, in some regions, the government has also implemented a policy of exempting retribution for Building Approval (PBG), previously known as Building Construction Permit (IMB), as part of efforts to reduce development costs and accelerate the output of livable houses. This combination of fiscal relief is part of the government's comprehensive strategy to expand access to housing, especially for vulnerable and low-income groups.

As part of the PSR, the output of the 2023 FLPP programme reached 229,000 housing units (100% of the target) with a budget allocation of IDR26.3 trillion. For 2024, the initial budget was allocated IDR13.7 trillion for a target of 166,000 units. However, the additional quota of 34,000 units made the output of FLPP in 2024 reach 200,300 housing units (IDR 24.57 trillion). Cumulatively, until the end of 2024, the number of houses financed through FLPP is recorded at around 1.59 million units with a total value of more than IDR151 trillion. This reflects the important role of FLPP in supporting the ownership of decent housing for low-income people in Indonesia.

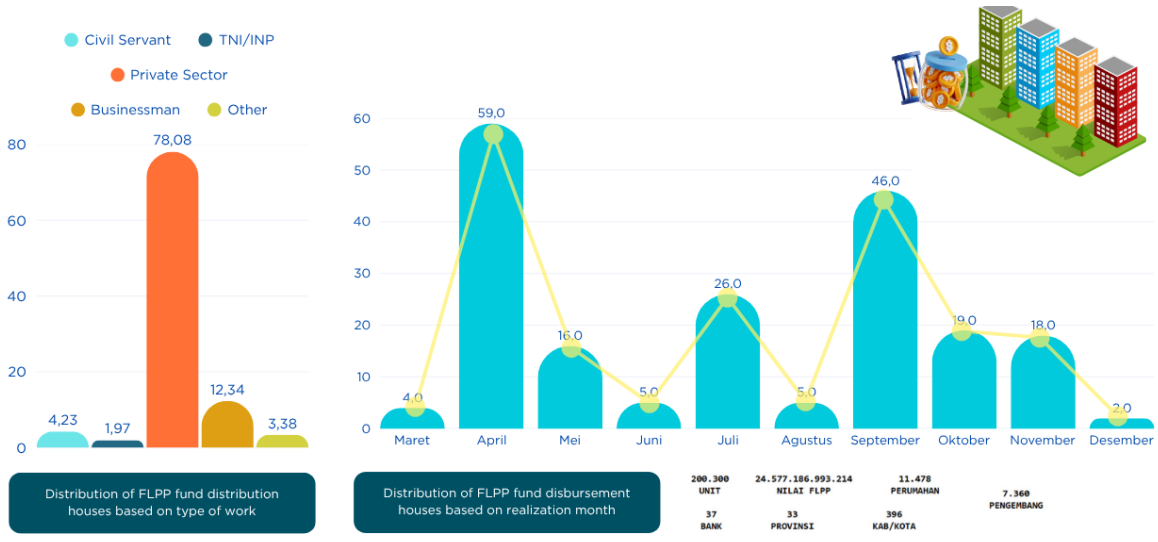


Figure 1.57 Output of FLPP disbursement 2024
Source: Processed from https://www.tapera.go.id/produk/realisasi-2024/

With this output, since 2022 BP Tapera has disbursed a total of around Rp76.04 trillion in FLPP funds for 655,300 MBR houses. BP Tapera is currently given the specific task of channeling FLPP funds, replacing the function previously held by the Centre for Housing Financing Fund Management (PPDPP)-a Public Service Agency (BLU) that has been

established since 2010 to manage housing subsidy financing in a professional and accountable manner. Although FLPP management is not BP Tapera's core task as mandated by the law, this assignment is temporary as part of the institutional transition following the dissolution of PPDPP. The distribution of FLPP houses based on the type of employment of beneficiaries is dominated by private sector workers at 78.08%, followed by entrepreneurs (12.34%), civil servants (4.23%), TNI / Polri (1.97%), and other groups (3.38%).

In addition, BP Tapera also distributes Tapera mortgages (mandatory savings-based housing finance). Throughout 2024, Tapera distributed 5,940 housing loans worth Rp990.2 billion for MBR. Public Housing Savings (Tapera) is a fund sourced from participant savings, which initially focused on the State Civil Apparatus (ASN) as a form of mandatory savings for housing needs. In accordance with the mandate of Law Number 4 of 2016 concerning Tapera, this scheme will in the future be expanded to include private employees, BUMN employees, TNI / Polri members, to independent workers or self-employed**.**

Rental house

Most local governments in metropolitan and large cities have built rental apartment units, called *rusunawa*, as an affordable option for low-income people who work temporarily in the city. The construction of low-cost housing carried out by the Ministry of Public Works until October 2024 consists of the construction of flats (rusun) of 2,278 units from a target of 7,745 units, special purpose houses of 1,426 units from a target of 2,723 units, self-help houses of 90,402 units from a target of 135,319 units, assistance for infrastructure, facilities and utilities (PSU) land in the form of environmental roads of 21,159 units from a target of 20,850 units.

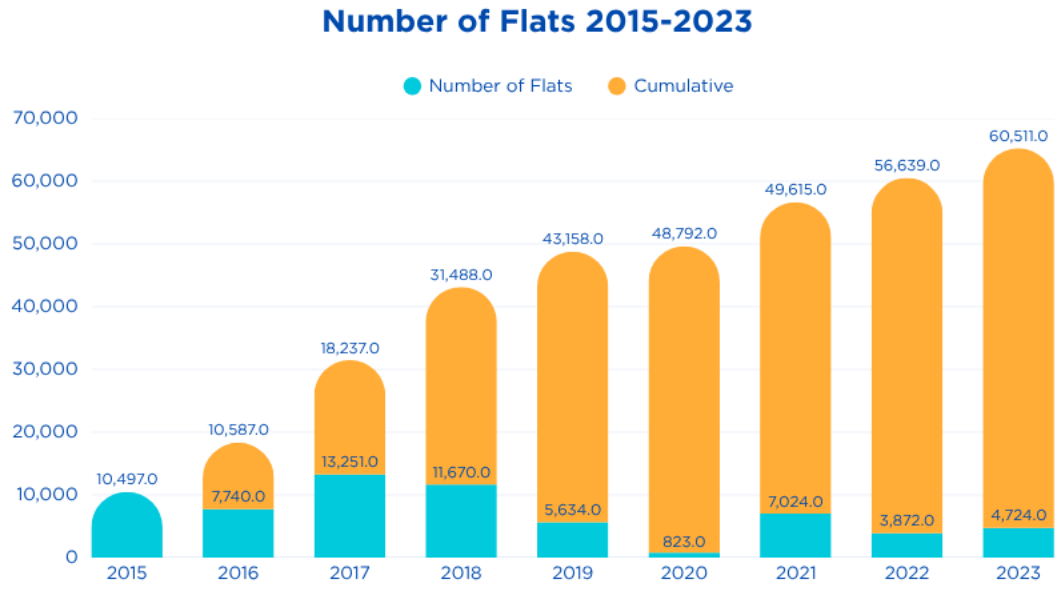


Figure 1.58 Number of flats 2015-2023
Source: MoPWH, 2023

According to the graph showing the number of flats constructed in Indonesia from 2015 to 2023, the data trend between 2015 and 2017 indicates a relatively consistent increase, with an average annual construction of over 10,000 units. 2018 saw a significant decline, with only 5,634 units of flats built. 2019 saw a drastic drop to 823 units, which was the lowest number in this period. 2020 onwards saw an increase again, with a larger number in 2021 (7,024 units). The years 2022 and 2023 show a downward trend compared to 2021, although the number is still significant. Cumulatively, the number of flats continued to increase from 10,497

units in 2015 to 65,235 units in 2023. Significant spikes in the cumulative numbers occurred in years of high construction (2016-2017 and 2021). These changes, 2019-2020 saw a sharp decline, most likely due to budget constraints and the impact of the COVID-19 pandemic on the construction sector. After the pandemic subsided, construction picked up again in 2021. However, 2022-2023 saw a decline from 2021, which could be due to lower budget allocations or a change in priorities in infrastructure development.

There is a housing programme provided by the government for certain groups of people who have limited access to decent housing through ordinary market mechanisms, namely the provision of special purpose houses. To ensure social justice and equality in fulfilling basic needs, especially for MBR, indigenous peoples, disaster victims, fishermen, educators, health workers in disadvantaged, frontier, and outermost (3T) areas, as well as TNI / Polri personnel, special purpose houses built using APBN funds are provided for free occupancy or with a very affordable rental scheme.

The trend of special purpose housing construction in Indonesia shows significant fluctuations from year to year. In 2015, a total of 6,402 special purpose housing units were built, and this figure jumped sharply to 12,444 units in 2016, reflecting the policy of accelerating development for people in remote or disaster-affected areas. However, this trend did not continue, as in 2017 there was a drastic decline to 5,037 units, and continued to decline to 4,525 units in 2018 and only 1,954 units in 2019. This decline was influenced by shifting national development priorities and reduced budget allocations for the specialised housing sector. During the period 2020 to 2023, the number of special purpose housing developments per year was relatively stable, ranging from 1,500 to 4,500 units, with a slight increase in 2021 and 2022 after the COVID-19 pandemic subsided. The pandemic itself has slowed down construction due to mobility restrictions and limited logistics. Until 2023, the cumulative total of special purpose housing construction reached 37,516 units. In addition to policy and budget factors, specific needs for special purpose houses in certain areas, such as for indigenous peoples, disaster victims, or workers in 3T areas, also affect this fluctuation. In 2023 alone, the Ministry of Public Works recorded the construction of around 4,050 units of special purpose houses, showing an ongoing commitment to providing decent housing for vulnerable groups in various parts of Indonesia.

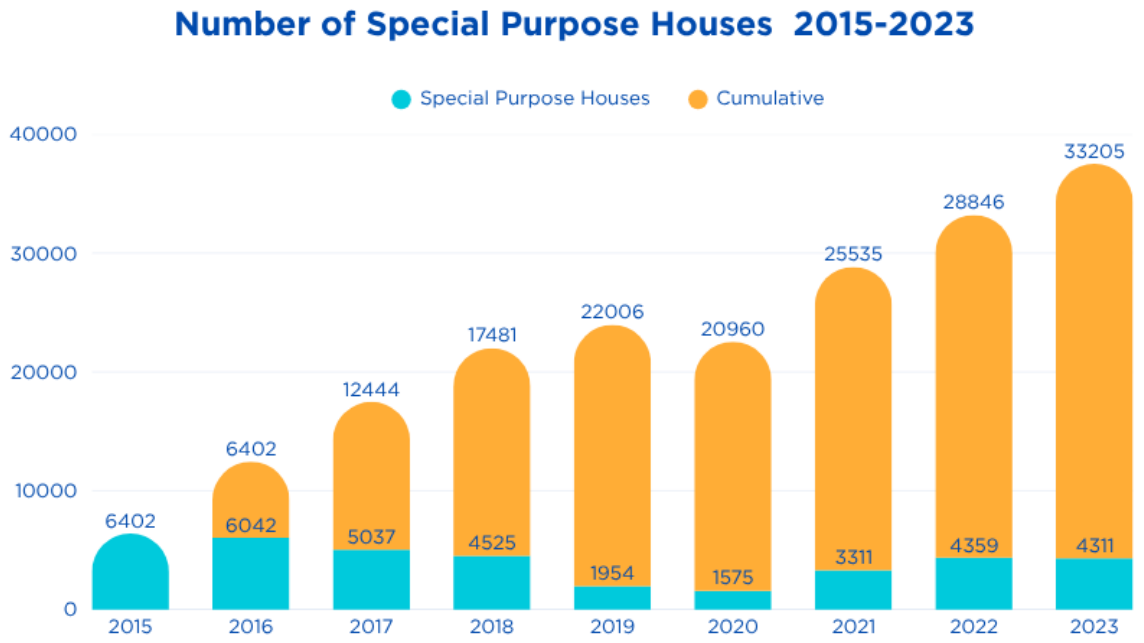


Figure 1.59 Number of special purpose houses 2015-2023
Source: Ministry of PWH, 2023

The PUPR Ministry has also implemented the Self-Help Housing Stimulant Assistance (BSPS) programme. There are five requirements to receive the fund that indicate inadequate housing conditions: floors made of earth or low-quality wood; walls made of bamboo or low-quality wood; lack of ventilation or natural lighting; roofs made of deteriorated leaves or earthen tiles; and moderately to severely damaged or inadequate living space. From 2020 to 2024, these funds have been allocated for the renovation of a total of 700,641 houses and build 35,215 new houses. The renovated houses are mostly located in Papua, in line with STATISTICS INDONESIA data for the highest number of uninhabitable houses, and followed by Java, while the newly built houses are mostly in Java. For the amount of funding itself, there are two categories that received an increase: Self-help Home Quality Improvement (PKRS) to IDR 17.5 million and 35 million depending on location; as well as IDR 35 million for Self-help New Housing Construction (PBRS). These funds are meant to cover two costs, namely building materials and labour.

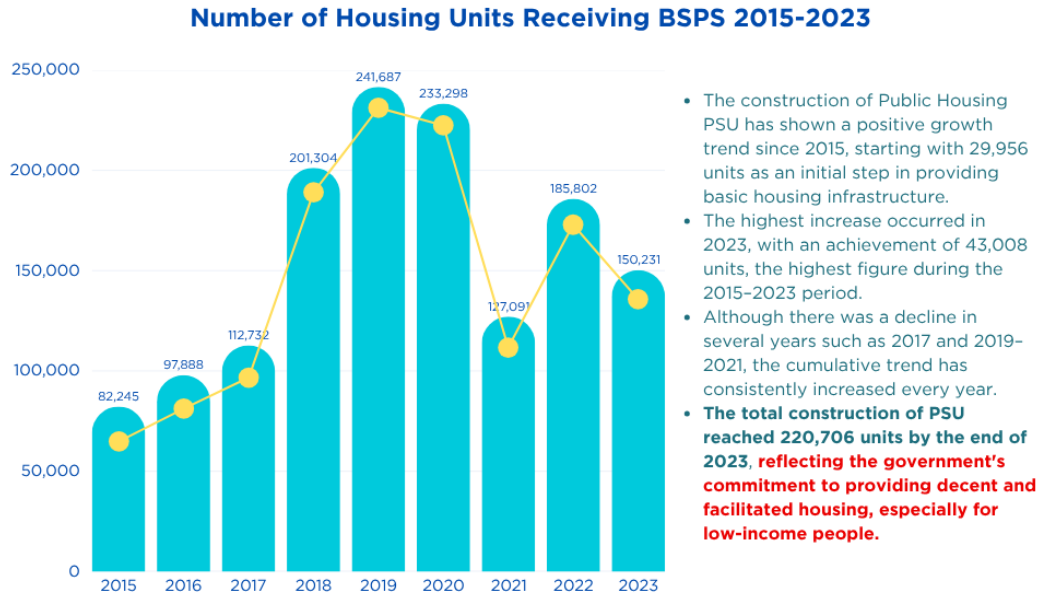


Figure 1.60 Number of housing units receiving BSPS 2015-2023
Source: MoPWH, 2023

Data on facilities and utilities infrastructure (PSU) construction in public housing within 2015-2023 also shows a positive growth trend. In 2015, PSU construction started with 29,956 units, and gradually increased with fluctuations in the number of units per year. The most significant increase was recorded in 2023, where construction reached 43,008 units-the highest number throughout the period. Although it declined in 2017 and 2019-2021, the accumulative trend continues to increase every year, from 29,956 units in 2015 to 220,706 units by the end of 2023. This data reflects the government's ongoing commitment in supporting the provision of basic housing infrastructure, which is crucial to ensure the quality of decent housing for low-income people.

The construction of houses for low-income people is also carried out by other Ministries/Institutions. The Ministry of Social Affairs, for example, contributes through the Social Rehabilitation of Non-Habitable Houses (RS-RTLH/Rutilahu) programme which is continued to become the Integrated Prosperous House (RST) Social Assistance Programme. In its implementation, there are differences in the definition of target beneficiaries. The Ministry of Public Works limits its beneficiaries to the low income communities (MBR) group, which is the lowest 60% expenditure group living in urban areas. Meanwhile, the Ministry of Social Affairs focuses on stimulus assistance to improve the quality of housing for the poor, especially in rural areas, borders between countries, and small islands.

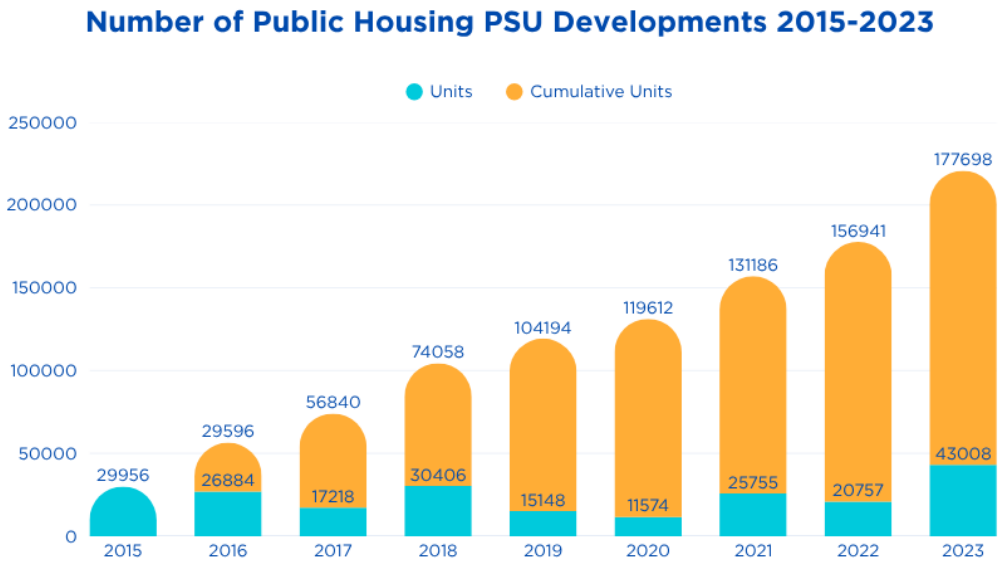


Figure 1.61 Number of public housing PSU developments 2015-2023
Source: Ministry of Public Works, 2023

In the 2014-2021 period, 76,118 houses were built with the RS-Rutilahu programme followed by 16,620 houses built with the RST programme until the total of these two programmes reached 92,738 houses. RST assistance until 12 December 2022 has been disbursed amounting to IDR184.46 billion with 9,223 KPM beneficiaries spread throughout Indonesia.

RST is a house that has received house rehabilitation assistance and complementary assistance so that it meets the requirements of a habitable house as a place of residence and or a place of business that can improve the welfare of programme recipients carried out in mutual cooperation in order to create decent housing conditions as a place of residence by taking into account the needs and accessibility of programme recipients. The RST programme consists of two types, namely Rehabilitation of Livablehouses (RLH) and Rehabilitation of Simple Business houses (RUS). RLH rehabilitation refers to the process of restoring social functioning through community-based efforts by transforming uninhabitable houses into liveable ones for beneficiary families listed in the Integrated Social Welfare Data and/or those categorized as living in extreme poverty. On the other hand, RUS rehabilitation focuses on restoring the social functioning of low-income individuals through collective efforts to improve inadequate housing into liveable homes that also include space for business activities, thereby enhancing the economic empowerment of social assistance recipients.

The RST programme has set standards, criteria for beneficiaries, and the value of the assistance. The standard of the RST programme house is that it must fulfil the principles of a healthy house. The criteria and requirements for RST programme recipients for RLH Rehabilitation are walls and/or roofs in a damaged condition that can endanger the safety of residents, walls and/or roofs made of materials that are easily damaged or weathered, floors made of planks, bamboo/cement or ceramics in a damaged condition, do not have a place to wash and toilet, or have but are not feasible and/or the floor area is less than 7.2 square metres per person. Meanwhile, to qualify as a recipient of the RLH rehabilitation programme, applicants must meet several requirements: they must possess an identity card or family card, be listed as poor in the Integrated Social Welfare Data, own a house on personally owned land proven by a certificate, sale and purchase deed, girik, or another form of ownership document issued or certified by the sub-district head as the land deed official, and must not have previously received similar housing repair assistance from any ministry, institution, or local government.

The value of RST programme assistance is given to beneficiary families with a value of IDR 20 million or in accordance with state financial policies. Applications for RST social assistance can be submitted by homeowners, communities, social welfare institutions, and/or district / city social services by referring to the Decree of the Director General of Social Protection and Security of the Ministry of Social Affairs of the Republic of Indonesia Number Kep-60/3/BS.01.02/9/2022 concerning Technical Guidelines for Integrated Prosperous houses. Through this programme, the community is also empowered through Disaster Alert Cadets or *Taruna Siaga Bencana* (Tagana) to jointly build RST. In addition, entrepreneurship assistance is also provided to RST recipients to increase their economic independence.

While the above programmes have expanded access to housing, some constraints remain. For one, the gap between income and house price increases: house prices (and land/material costs) are rising faster than the incomes of low-income families. As a result, despite rising real incomes, the proportion of expenditure on housing remains burdensome. For example, the average family allocates ~28% of its total expenditure to housing, fuel, electricity and water.

On the other hand, there is still the phenomenon of unoccupied subsidised houses. Since it was first revealed in 2017 that around 30-40% of subsidised houses were vacant despite having gone through the credit contract process, the occupancy rate of subsidised houses (FLPP and Tapera) has now improved (2024 reaching 93.62%). The main reasons for unoccupancy of subsidised houses include poor building quality, unavailability of electricity and clean water supply, and poor road access. In addition, the location far from the city centre and public facilities discourages residents from living there. Some owners also choose not to occupy the house because they are still living in their old house. This phenomenon is also influenced by the practice of transferring subsidised houses by unauthorised owners, such as not the first homeowner, although this is prohibited by applicable regulations.

To address this issue, the government continues to improve supervision and law enforcement of the implementation of the subsidised housing programme, as well as ensuring that subsidised houses are well-targeted and habitable. Developers who do not meet building quality standards may be subject to sanctions, including being blacklisted and no longer allowed to build subsidised houses.

Meanwhile, there is still a significant housing *backlog*; for example, the 2021 Susenas records estimate the homeownership *backlog* to be in the tens of millions of households. The government is also preparing long-term policies, such as a housing endowment scheme, to ensure the sustainability of MBR housing financing (in response to limited fiscal space).

1.1.2.2 Provision of Access to Sustainable Housing Finance

During the period 2021-2024, there is an increase in the percentage of households that have access to adequate housing. The percentage of households that have access to decent housing increased from 59.54% in 2021 to 65.25% in 2024. Households can be categorised as having access to decent housing if they fulfil 4 (four) criteria, namely: 1) *sufficient living space* of at least 7.2 m2 per capita; 2) access to adequate drinking water; 3) access to adequate sanitation; 4) *durable housing*. Based on the distribution, the province with the highest access to adequate housing in 2024 is Yogyakarta with an access achievement level of 86.68% or an increase of 0.89% from 2023.

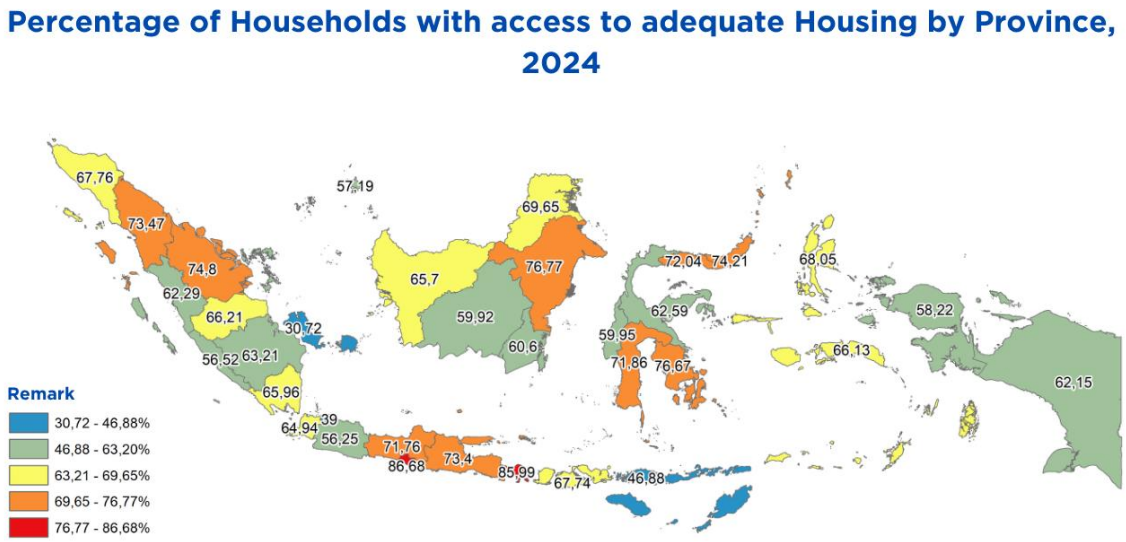


Figure 1.62 Percentage of households with access to adequate housing by Province, 2024
Source: STATISTICS INDONESIA, 2024

Home Ownership Loan

There are many reasons to monitor mortgage debt. Most households cannot afford to buy a house or apartment without getting a mortgage loan. Therefore, the availability of mortgages is critical to increasing home ownership. Increasing home ownership is one significant way to achieve adequate housing for all, which is one of the key commitments in the New Urban Agenda (NUA §31). Houses and apartments are also key assets for households. The more mortgage loans available, the more households become homeowners. There are also macroeconomic reasons to monitor mortgage debt, policies should be put in place to ensure that borrowers buy properties they can afford. It is important to monitor mortgages. The financial crisis of 2008/2009 started in the housing sector.

There are various efforts being made to ensure the provision of access to decent and affordable housing. With a relatively low mortgage to Gross Domestic Product (GDP) ratio of 5.08% in 2023, financing the housing sector still relies heavily on government support. However, due to limited fiscal resources, housing finance subsidy schemes such as the Housing Finance Liquidity Facility (FLPP) face sustainability challenges. To address this, in 2005 the government established PT Sarana Multigriya Financial (Persero) / SMF, a state-owned enterprise under the Ministry of Finance, which acts as a secondary housing finance institution. SMF aims to expand access to affordable long-term financing by developing the secondary mortgage market. Through securitisation and disbursement of financing to mortgage lending institutions, SMF supports the sustainability of the housing subsidy programme by reducing the portion of financing that comes from the state budget, thus enabling more households, especially low-income households, to gain access to decent housing.

In 2016, Law No. 4/2016 on Public Housing Savings (Tapera) was passed. This regulation aims to shift the housing financing scheme from being dependent on the government to a more independent and sustainable financing. Tapera funds are collected periodically through mandatory deposits from workers and employers based on a certain percentage of income, and managed professionally by the Public Housing Savings Management Agency (BP Tapera) in a special account. The funds collected can be used by participants to buy or renovate their first home. After the participation period ends, the funds will be returned to participants along with the results of their fertilisation. In the early stages of implementation, Tapera participants

consist of the state civil apparatus (ASN). Subsequently, it is expected that all workers, including private workers and self-employed workers, can become participants in this programme.

The programme prioritises low-income earners, especially those with an income below IDR 8 million per month, in accordance with the provisions of the Ministry of Public Works and Housing. The law also stipulates that Tapera can utilise external sources of funds such as the FLPP. In the context of programme integration, FLPP funds will be transferred to BP Tapera as a form of government investment. Furthermore, the FLPP mortgage scheme will continue under the management of BP Tapera with a number of policy adjustments.

Based on data from the Statistics Indonesia (BPS) in 2024, 57.95% of Indonesia's population works in the informal sector. This group includes entrepreneurs, traders, freelancers, and other professions that generally do not have regular income and formal proof of income. This condition makes them face great challenges in accessing financing from banks, including Home Ownership Loans (KPR). In response to this challenge, PT Sarana Multigriya Financial (Persero) or SMF is collaborating with Grab Indonesia, government agencies, and the private sector in launching a housing financing programme aimed specifically at ride-hailing drivers. Through cooperation with Non-Bank Financial Institutions (LKBB), SMF is channelling mortgage financing to Grab drivers with a more inclusive scheme. The programme is designed with a number of conveniences, including more flexible credit requirements, low down payment, affordable processing fees, and fixed interest rates with a maximum tenor of 15 years. This scheme is considered more lenient compared to regular mortgage products that generally use floating interest schemes. This initiative shows a concrete effort to expand access to decent and affordable housing, especially for informal workers who have been underserved by conventional financing systems. (*Housing Finance International Journal - IUHF Autumn Edition, 2020)*

Mortgage debt relative to GDP

Indonesia is committed to increasing the availability of a wide range of housing options that are safe, affordable, and accessible to households with different income levels, as well as integrating marginalised and homeless communities to prevent segregation. However, affordable housing may not be available in the private real estate market. Therefore, the government may need to invest in housing for low-income residents or implement policies that encourage household access to mortgages.

The penetration rate of mortgage loans (KPR) in Indonesia is still relatively low when compared to other countries, both in the Southeast Asian region and globally. Based on Bank Indonesia data, Indonesia's mortgage debt to Gross Domestic Product (GDP) ratio was recorded at 5.08% in 2023, showing an increase from 3.9% in 2021, and 2.9% in 2017. While there has been an upward trend in the past six years, the penetration rate still lags far behind neighbouring countries such as Malaysia and Thailand, which each have ratios above 20%.

The low proportion of housing finance through mortgages reflects the limited access of Indonesians to the formal financing system, especially for informal workers and low-income groups. In this context, the majority of people still rely on self-financing or informal financing to fulfil their housing needs, which is often accompanied by high risk and limited quality.

This situation does not only signify a major challenge in realising housing affordability but also opens a huge space for the transformation of the financial and housing sectors. This challenge can be addressed by expanding financial inclusion through various strategies, including: (1) Development of innovative financing schemes, such as micro mortgages, savings-based mortgages, or subsidised mortgages with flexible terms. (2) Digitalisation of banking and financing systems to enable verification and access to credit for informal sector workers. (3)

Partnerships between the government, financial institutions, and housing developers to create integrated financing models that target low-income communities.

The government can also encourage financial inclusion through regulatory improvements and fiscal stimulus, such as low interest incentives, government guarantees for high-risk mortgages, and simplification of home ownership administration procedures. These efforts will not only increase people's purchasing power for housing, but also strengthen the stability and sustainability of the national financial system.

Furthermore, increased access to more inclusive housing finance will boost the growth of the construction sector and its derivative industries, create jobs, and drive local economic activity. In the long run, this will have a significant impact on improving people's quality of life, reducing social inequality, and realising more equitable urban development. Thus, increasing mortgage penetration in Indonesia is not just a technical financing issue, but an integral part of a sustainable national socio-economic development agenda.

1.1.2.3 Guarantees on Land Ownership Rights

Indonesia is committed to improving land rights security for all, with particular attention to land rights security for women as key to their empowerment, including through effective administrative systems (NUA §35). In addition, the programme is underpinned by a commitment to encourage the development of policies, tools, mechanisms and financing models that promote access to a range of affordable and sustainable housing options (NUA §107). Land is one of the four factors of production needed to produce goods and services; the other three are labour, capital and entrepreneurship.

The definition of security of land rights based on the Ministry of Agrarian Affairs and Spatial Planning/National Land Agency (ATR/BPN) is "the right obtained based on the law between the right holder and the land, including the space above the land and/or the space below the land to control, own, use, and utilise, as well as maintain the land, space above the land, and/or below the land". The types of land tenure security in Indonesia include right of ownership (*hak milik*), right to build (*hak guna bangunan*), right to use (*hak pakai*), right to cultivate (*hak guna usaha*), right of management (*hak pengelolaan*), ownership rights to units of vertical housing (*hak milik atas satuan rumah susun*), and waqf land (*tanah wakaf*).

A new policy on electronic land certificates was prepared during the COVID-19 pandemic until the enactment of Permen ATR No. 1/2021 (electronic certificates as legal evidence) and further updated with Permen ATR No. 3/2023 on the issuance of electronic documents in land registration. The purpose of issuing this regulation is to register legal ownership of land throughout Indonesia, including facilitating public access to apply for land certificates, and reducing deficiencies and legal uncertainty in the land sector. In addition, this policy aims to reduce the practice of illegal land transactions that often occur due to land boundary disputes. The introduction of e-certificates is also to accelerate digital transformation in land ownership records. The Ministry of ATR/BPN introduced other electronic/digital services, including mortgage (ROYA) services, information on land value zones, and certificate examination. With this digital service system in place, it has greatly helped reduce queues at land offices during the pandemic.

Efforts to improve the security of land rights in Indonesia have been made on various types of land affecting different social groups and gender affiliations. One of them is through the Complete Systematic Land Registration (PTSL). The PTSL programme that started in 2017 has registered 74.9 million parcels of land by 2024, with 9.17 million parcels certified (95.9% of the target), and leaving 5.1 million parcels to be completed by 2025. On the agrarian reform side, Presidential Decree No. 86/2018 stipulated policies on state land redistribution, absentee assets, transmigration asset legalisation, and agrarian conflict resolution since 27 September

2018, which was then accelerated through Presidential Decree No. 62/2023-effective since 3 October 2023-with a five-pillar strategy: asset legalisation, land redistribution, subject economic empowerment, agrarian reform institutions, and community participation.

Home ownership is an important indicator of community welfare and the socio-economic stability of a country. In Indonesia, the problem of access to decent and affordable housing is still a prominent issue, especially in urban areas that are under pressure due to urbanisation, limited land, and the surge in property prices that are far from the original price of the object. However, in recent years, the data shows a positive trend in terms of increasing the proportion of households that own their houses as mentioned in the previous sub-chapter.

However, it should be noted that property ownership in urban areas has historically been lower than in rural areas. Data between 2015 and 2020 shows that the proportion of secure land rights (i.e., with legally recognised documentation and with perceived security of tenure) also tends to be higher in rural areas. The average property ownership in urban areas was recorded at around 72%, while in rural areas it reached 90%. In fact, home ownership declined in 2017, before trending upwards again starting in 2018 and reaching 79.36% by 2023 (STATISTICS INDONESIA, 2024).

Overall, the increase in the proportion of owned houses and decrease in rental houses, supported by certificate digitisation, PTSL, and agrarian reform policies, represent significant progress in land rights security in Indonesia. To ensure sustainability and equity, it is necessary to strengthen the socialisation of PTSL in dense residential areas, integrate certification data with urban spatial planning, and evaluate the impact of granting land rights to women in accordance with NUA §35.In addition to the geographical differences between urban and rural areas, the data also shows interesting dynamics related to home ownership based on the gender of the household head as presented in the previous sub-chapter.

The increase in the proportion of home ownership is also inseparable from the support of national housing policies. The Indonesian government has implemented various programmes to expand people's access to decent housing, including the One Million Houses Programme launched in 2015, which aims to provide houses for low-income people (MBR), through collaboration between the central government, regions, developers, and SOEs. In addition, there is also the Housing Financing Liquidity Facility (FLPP), which provides a 5% fixed mortgage interest subsidy that greatly helps the MBR group in accessing long-term financing with light instalments. In addition, there is also a policy of Subsidised Down Payment Assistance (SBUM) to assist the MBR in paying the down payment for their first home purchase, to the provision of 0% VAT during the pandemic.

The Government of Indonesia is committed to the New Urban Agenda, with support for incremental housing, self-reliant development, and slum and informal settlement renewal (NUA §107). In addition, Indonesia also agreed to the planned and inclusive development of urban areas, to avoid spatial and socio-economic segregation, and uncontrolled gentrification (NUA §97).

Increasing proportion of households that own a home is a positive step towards inclusive and sustainable housing. In the new administration, the government continues its efforts to increase home ownership, especially with the Three Million Houses programme and the establishment of a new ministry that focuses on building houses for the people. With strong and sustained policy support and the implementation of the NUA principles, Indonesia can strengthen the foundation of people's well-being through greater access to decent and affordable housing and is optimistic that it can achieve this Indicator's target by 2036.

1.1.2.4 Establishment of Slum Upgrading Programme

Indonesia supports phased housing, self-build schemes, and slum upgrading and informal settlements (NUA §107). Indonesia also agrees to promote planned urban expansion and infill, while focusing on renewal, regeneration and retrofitting of urban areas, including slum upgrading and informal settlements, and avoiding spatial and socio-economic segregation and gentrification (NUA §97).

The years 2020-2025 mark a series of strategic policies and programmes of the Indonesian government to ensure access to decent and affordable housing for all levels of society. In the previous subchapters, various forms of programmes have been presented to support the integration of housing supply for all, such as the One Million Houses Programme (PSR), FLPP, Tapera, and the "balanced housing" regulation (Government Regulation 12/2021, Law 1/2011) which requires a ratio of simple-medium-luxury units of 3:2:1. In the field of settlement arrangement, the percentage of households occupying slum areas continues to decline: from 9.12% (2021) to 7.50% (2024). Papua recorded the highest (37.98% in 2023), while Special Region of Yogyakarta recorded the lowest at 1.85%. Integrated programmes such as the Special Allocation Fund for Integrated Slum Management (DAK Tematik PPKT) have been rolled out since 2020, with *pilot projects* in 11 districts/cities and integrated schemes for drinking water, sanitation and housing. Until 2024, 39 districts/cities in 16 provinces received DAK Thematic KDP interventions covering 359,166 ha of slums. The KOTAKU (Cities Without Slums) programme, involving active collaboration between government and communities, has improved basic infrastructure in thousands of slum neighbourhoods, with the RPJMN 2020-2024 target of removing 10,000 ha of slums.

In terms of region, rural households still live in slum houses more than urban ones. In 2024, the percentage of rural households living in slum houses reached 8.80%, while in urban areas it was 6.20%. Based on the *2024* Housing and Environmental Health Indicators publication from the Statistics Indonesia (BPS), it is found that the province with the highest percentage of households living in slum houses is still in Papua at 37.98%, followed by East Nusa Tenggara at 21.90%. Meanwhile, the province with the lowest percentage of households living in slum houses is Special Region Yogyakarta, which is 1.85%. The data shows that in 2023 around 8 out of 100 households in Indonesia still live in slums.

In an effort to reduce slums more effectively and sustainably, since 2020 the government has implemented a more comprehensive and integrated approach. This approach does not only focus on improving the physical environment, but also considers the specific needs of the area, provides quick impact, and brings social and economic value to the community. The transformation of slum areas is carried out through urban renewal and resettlement schemes that are designed in a participatory manner. As part of the strategy, the government launched an integrated slum management programme through thematic Special Allocation Fund (DAK Tematik) that integrates the Housing and Settlement Areas, Drinking Water, and Sanitation sectors. The programme has been implemented in 11 districts/cities as pilot projects, with the aim of addressing slum problems as a whole in a single area. Through this programme, the main actions offered include slum rejuvenation and community relocation to decent housing, while taking into account social, economic, and environmental sustainability aspects.

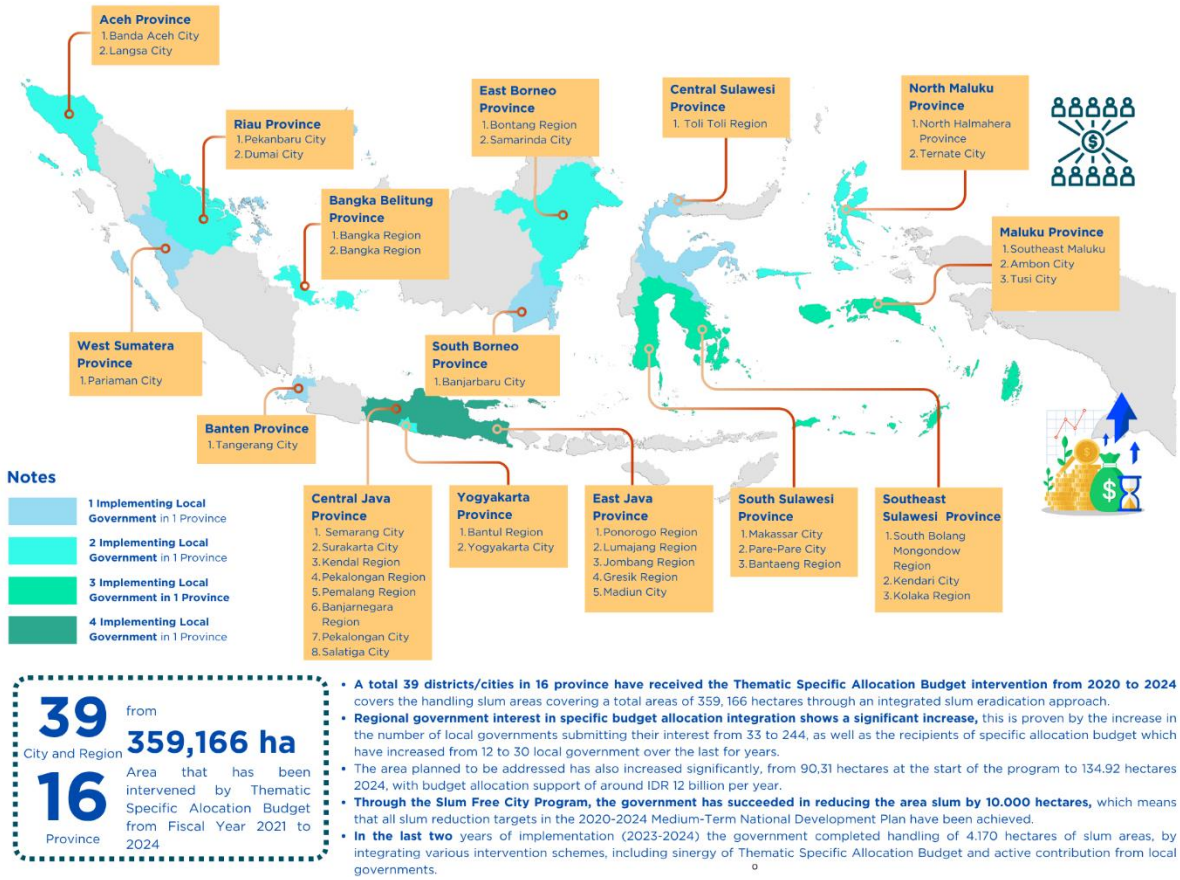


Figure 1.63 Distribution of DAK Thematic KDP Implementers / Integration, 2021-2024
Source: Ministry of Public Works, 2024

In four years, 39 districts/cities in 16 provinces have received interventions through Special Allocation Fund (DAK), covering a total slum area of 359,166 hectares. From the inception of Integrated Special Allocation Fund in 2020 to 2024, there has been a significant increase in the number of local governments expressing interest, setting priority locations, and receiving DAK allocations. The number of local governments expressing interest increased from 33 to 244, while those with priority locations increased from 33 to 67, and DAK recipients increased from 12 to 30. The planned area to be addressed also increased from 90.31 hectares to 134.92 hectares, with the budget allocation reaching around Rp12 billion annually.

The government also runs another strategic programme through the Ministry of Public Works and Housing (PUPR), namely the Cities Without Slums (Kotaku) programme. By the end of 2024, the government managed to reduce the area of slum areas by a total of 10,000 hectares, which means that the national target in the RPJMN has been fully achieved. In the last two years of implementation (2023-2024), the government completed the treatment of the remaining 4,170 hectares of slum areas, through various integrated intervention schemes, including collaboration with the DAK Tematik programme and local government support. This achievement reflects the government's strong commitment to improving the quality of settlements and is an important foundation for planning housing and settlement development in the next RPJMN period (2025-2029).

The two main interventions that have been implemented-the Kotaku programme and DAK Thematic PPKT-demonstrate Indonesia's real commitment to promoting inclusive and sustainable housing policies, in order to realise the gradual output of the right to adequate housing for all citizens. These interventions not only focus on improving the quality of basic infrastructure in slum areas, but also include the development and provision of safe, affordable and dignified housing. This effort is in line with Indonesia's commitment to the New Urban

Agenda which emphasises the importance of substantial improvements in the living standards of slum dwellers, the protection of vulnerable groups, and the need for long-term investment in housing and urban infrastructure. Through this policy, Indonesia strengthens the government's role in encouraging the transformation of residential areas that are not only liveable, but also support social integration and improve the overall quality of life of the community.

Some examples of implementation by local governments in slum reduction include DKI Jakarta Province, Surabaya City and Makassar City. DKI Jakarta Province focuses on the construction of rusunawa (rental flats) and village arrangement in a programme called kampung susun. The concept of Kampung Susun carries the principle of active participation of residents through the method of joint planning (co-design). Residents are involved in every stage, from planning, construction, to the management of housing through cooperatives. This approach allows the integration of residential functions with business spaces, multipurpose spaces, and other community facilities, creating an inclusive and productive environment. One of the main examples is Kampung Susun Akuarium in Penjaringan, North Jakarta, which is the result of collaboration between the Provincial Government of DKI Jakarta, Rujak Centre for Urban Studies, Koperasi Akuarium Bangkit Mandiri, approximately 20 urban villages that are members of the Urban Poor People's Network, and the Urban Poor Consortium. Kampung Susun Akuarium consists of two residential blocks with a total of 107 units, each measuring 36 m², and has been inhabited by 97 households since 2023. The success of Kampung Susun Akuarium is internationally recognised with the highest award in the Asia Pacific Housing Innovation Award 2023 and a gold medal in the World Habitat Awards 2024.

Surabaya (East Java): designated as a "National KUKUR City" in the Cities Without Slums (KOTAKU) Programme, making it a leading example in slum upgrading in Indonesia. Innovations implemented by Surabaya municipality include the transformation of coastal slums into "productive slum kampongs", inspired by Thailand's successful model. This approach transforms slums into productive spaces that support the local economy and community empowerment. As part of this effort, the East Java Provincial Government enacted Governor Regulation No. 25/2024 which targets the upgrading of 13 slum areas by 2023. Surabaya serves as the host for the National Slum Upgrading Project (NSUP) Level 1, which is part of the KOTAKU programme.

Makassar (South Sulawesi): The "Makassar Zero Slum" movement is an initiative to alleviate slum areas through the Revitalising Informal Settlements and their Environments (RISE) programme, a collaboration between the Governments of Indonesia and Australia through KIAT. The programme focuses on improving sanitation and clean water supply, two crucial factors in stunting prevention. As part of this effort, Makassar's Department of Settlement (Disperkim) implemented infrastructure reconstruction in slum areas such as Mariso, Jeneberang, Pampang, and Tallo. Measures taken include road repair, drainage, provision of latrines, and access to clean water through cooperation with PDAM. In addition, the community participation-based KOTAKU (Kota Tanpa Kumuh) programme encourages gotong royong in clean-up activities and mapping of congested villages, as well as the development of programmes such as organic villages and waste banks to improve environmental quality and the welfare of residents.

1.1.2.5 Integration of housing into urban development plans

In Indonesia, there are several ways to implement urban development plans into regulations, namely through the Medium-Term Development Plan (RPJM) and the Regional Spatial Plan (RTRW). The Regional Medium-Term Development Plan (RPJM Daerah), is a regional development plan document for a period of five (5) years, which is a specification of the vision, mission, and programme of the regional head guided by the Regional Long-Term Development Plan (RPJP Daerah) and with due regard to the National Long-Term

Development Plan (RPJP Nasional). Meanwhile, the Regional Spatial Plan (RTRW) focuses more on spatial aspects, such as spatial structure, plan pattern, and land use control direction.

Out of a total of 38 provinces in Indonesia, 34 provinces have enacted Regional Spatial Planning (RTRW) regulations, while 4 other provinces are still in the process of drafting or enacting RTRW regulations, indicating significant progress in RTRW development at the provincial level. Meanwhile, at the district/city level, out of a total of 508 regions, 179 regions have completed the revision of their RTRWs, 269 regions are in the process of revising them, and only 2 regions do not yet have RTRW regulations. In addition, there are 3 regions that have RTRWs stipulated through the Minister of ATR/BPN Regulation. This data shows an increase in the achievement of integrating spatial policies throughout Indonesia, although acceleration and capacity building is still needed in some regions.

West Sumatra Province is one example of success in integrating the housing sector into sustainable urban development plans. This effort is realised through the preparation of the Housing and Settlement Area Development Plan (RP3KP), which has been stipulated through West Sumatra Province Regional Regulation No. 7/2016. This RP3KP document serves as a strategic reference in planning and developing housing and residential areas, with a cross-sectoral approach and based on the real needs of the community.

The preparation of the RP3KP is conducted in an integrated manner with the West Sumatra Provincial Spatial Plan 2012-2032, as stipulated in Regional Regulation No. 13/2012. This integration aims to ensure integration between the development of housing areas and the spatial structure of the region, while supporting the creation of decent, safe and sustainable residential areas. The process of preparing West Sumatra Province's RP3KP began in 2015, as a follow-up to the institutional strengthening programme encouraged by the Directorate of Settlement Area Development, Directorate General of Human Settlements, Ministry of Public Works and Housing (PUPR). At the national level, urban development is included in the RPJMN. Therefore, various programmes are implemented to improve the quality of life of the Indonesian people, especially in the aspect of housing.

1.1.3 Access to Basic Services

1.1.3.1 Access to Safely managed drinking water, Sanitation and Waste Management

Access to basic services such as safely managed drinking water, proper sanitation, and effective waste management are basic human rights. They are also important indicators in assessing the quality of life and the achievement of sustainable development. In this context, the there are three main indicators to measure the achievement of access to these basic services. Firstly, the proportion of the population using safely managed drinking water services, which is access to water that meets health quality standards, that is easily available, affordable and sustainable. Second, the proportion of the population using safely managed sanitation services, which includes faecal waste management, handwashing facilities, and hygienic sewerage systems. Third, the proportion of waste managed in controlled facilities, which aims to reduce health risks as well as negative environmental impacts due to waste generation.

In line with global commitments in the New Urban Agenda, Indonesia continues to promote the expansion of universal, equitable and inclusive access to safely drinking water. In addition, the government strengthens proper sanitation systems and encourages environmentally friendly and sustainable waste management. Indonesia continues to commit to achieving the targets of 100% safe water supply and 100% improved sanitation for all by 2030. This strategy

is an integral part of the sustainable development agenda to ensure a decent quality of life for all Indonesians, both those living in urban and rural areas.

Proportion of Population Using Safe and Adequate Drinking Water Services

Access to safely managed drinking water in Indonesia still encounter major challenges, mainly due to complex and heterogeneous geographical conditions. Differences in regional contours, environmental characteristics, and availability of water resources cause access levels to vary between regions, both in urban and rural areas. To tackle this issue, the government has adopted several measures, including expanding piped water supply systems, using suitable technologies for water purification, and enhancing the ongoing monitoring of drinking water quality by service providers and local authorities. The data collected through this monitoring serves as the foundation for evaluating access to safely managed drinking water.

Technically, drinking water is categorised as safe if it meets a number of specific quality parameters, including Total Dissolved Solids (TDS), the presence of Escherichia coli (E. coli) bacteria, pH value, and Nitrate and Nitrite concentrations. These parameters are critical in determining the potential impact of water on public health. Access to drinking water that does not meet these standards can lead to waterborne diseases and contribute to high rates of stunting and mortality among children under five. Therefore, increasing safely managed drinking water coverage is a national priority that is aligned with Indonesia's commitment to achieving the Sustainable Development Goals (SDGs) and the New Urban Agenda.

The Government of Indonesia has targeted 100% access to basic drinking water and 15% access to safely managed drinking water in the period 2020-2024. In 2023, the achievement of access to basic drinking water has reached 91.72%, and by the end of 2024 it has reached 92.42%. Meanwhile, access to safely managed drinking water increased from 11.9% in 2020 (based on SDGs and SKAMRT reports) to 14.1% in 2024, close to the 15% target. This increase was supported by various programmes such as Community-Based Water Supply and Sanitation (PAMSIMAS), the development of Regional Drinking Water Supply Systems (SPAM), and collaboration with the private sector. However, challenges such as disparities in access between urban and rural areas and limited water treatment infrastructure remain key issues.

Structured efforts and policies have been implemented to monitor drinking water quality, aiming to ensure its safety not only in the final product but also throughout the treatment and processing stages. The government has developed the 2020-2030 Drinking Water Monitoring Roadmap and revised related regulations into an integrated system, including the Drinking Water Safety Plan (RPAM), safely managed drinking water standards, and RPAM implementation audits. This policy is regulated in the Minister of Health Regulation No. 2 Year 2023 on the Implementation of Government Regulation No. 66 Year 2014 on Environmental Health.

On the other hand, population growth, urbanisation and the impacts of climate change exacerbate the challenge of fulfilling access to safely managed drinking water. The quality of water resources, both river and groundwater, shows a downward trend. STATISTICS INDONESIA data for 2024 reveals a significant gap in access to basic drinking water between urban and rural areas. Some provinces such as DKI Jakarta have achieved 100% of households with access to basic drinking water, while other provinces such as Papua still record much lower achievements. This disparity reflects the geographical and infrastructure challenges that vary widely across Indonesia. Nonetheless, the government continues to endeavour to expand and improve access to decent and safely managed drinking water for all communities as part of its commitment to inclusive and sustainable development.

Figure 1. 64 Distribution of Household with Access to Safely managed drinking water by Island (Percent), 2024
Source: STATISTICS INDONESIA 2024

Proportion of Population Using Safely Managed Sanitation Services

Access to safely managed sanitation is one of the key components in realising healthy, inclusive and sustainable cities as set out in the principles of the New Urban Agenda. The New Urban Agenda emphasises the importance of safe wastewater and sanitation management as part of fulfilling the right to adequate housing and a healthy living environment. It is also in line with the Sustainable Development Goals, particularly target 6.2 which targets universal access to adequate sanitation and hygiene for all by 2030, with special attention to vulnerable groups.

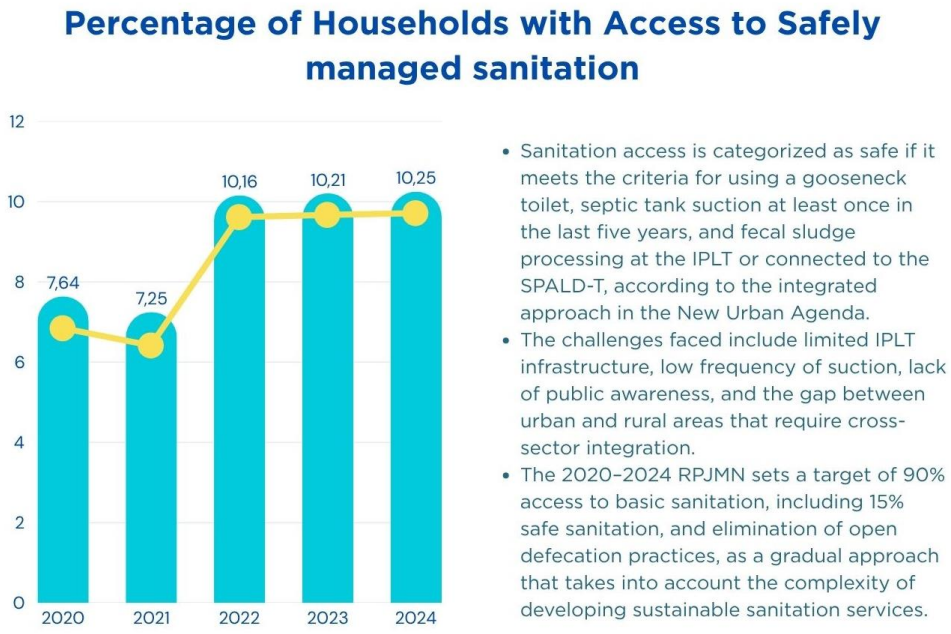


Figure 1. 65 Percentage of Households with Access to Safely managed sanitation
Source: Statistics Indonesia, 2024

In the last five years, the achievement of household access to safely managed sanitation services in Indonesia has shown an increasing trend. In 2020, only 7.64% of households had access to safely managed sanitation. This figure decreased to 7.25% in 2021, but experienced a significant increase in 2022 at 10.16%, and continued to rise to 10.21% in 2023 and reached 10.25% in 2024. This increase reflects the government's efforts to implement a more sustainable and inclusive approach to sanitation development, both in urban and rural areas, although the challenges of service distribution and infrastructure gaps between regions are still a major issue.

Technically, households are categorised as having access to safely managed sanitation if they meet certain standards. These criteria include: using a *water-sealed* toilet, having a septic tank that has been desludged at least once in the last five years, and the desludged faecal sludge has been treated at an Sewage Sludge Treatment Plant (IPLT). The other alternative is households that are directly connected to the Centralised Domestic Wastewater Treatment System (SPALD-T). This approach reflects a full sanitation service chain-based sanitation management system, which focuses not only on the availability of facilities, but also on safe waste management from upstream to downstream.

However, challenges remain in expanding access to safely managed sanitation in Indonesia, including the limited number and capacity of IPLT in many areas, the low frequency of septic tank desludging by communities, and the lack of awareness of the importance of safely managed sanitation management. In addition, there are significant disparities between urban and rural areas in terms of service coverage, and limited cross-sectoral integration in sanitation programme planning and implementation. Therefore, the government's policy direction focuses on strengthening technical and institutional capacity at the local level, accelerating the construction and rehabilitation of sanitation treatment facilities, expanding SPALD-T, developing innovative financing schemes, and integrating sanitation issues into inclusive and resilient urban development plans.

As a form of national commitment, the government has set a target in the 2020-2024 National Medium-Term Development Plan (RPJMN) document, which is 90% of households have access to basic sanitation, with 15% of them having access to safely managed sanitation. In addition, open defecation is targeted to reach 0% by 2024. This target is an adjustment from the RPJMN 2015-2019 which previously set a universal access target of 100% by 2019. This adjustment reflects a more comprehensive understanding of the complexity of sanitation service development, which includes not only the availability of physical facilities, but also the safe management of domestic waste that meets health and environmental standards.

Proportion of Waste Managed in Controlled Facilities

Efficient and sustainable waste management is a major challenge faced by many cities around the world, including Indonesia. Rapid urbanisation, population growth, and increased consumption cause the volume of waste to continue to grow from year to year. In this context, one important indicator to assess the success of waste management is the proportion of municipal waste that is collected and managed in facilities that meet environmental standards, such as well-managed landfills, recycling facilities, as well as other environmentally friendly waste treatment technologies. In 2024, the Ministry of Environment noted that the national waste management achievement had reached 59.88%, or around 20.2 million tonnes of the total waste generation of 33.7 million tonnes per year. This data is obtained from 311 districts/cities that actively report on waste management conditions. Although this figure shows progress compared to previous years, the achievement is still below the national target of 80% and has not covered all administrative areas in Indonesia. This indicates the need to strengthen strategies and policies, increase infrastructure capacity, and actively involve the community in the national waste management system.

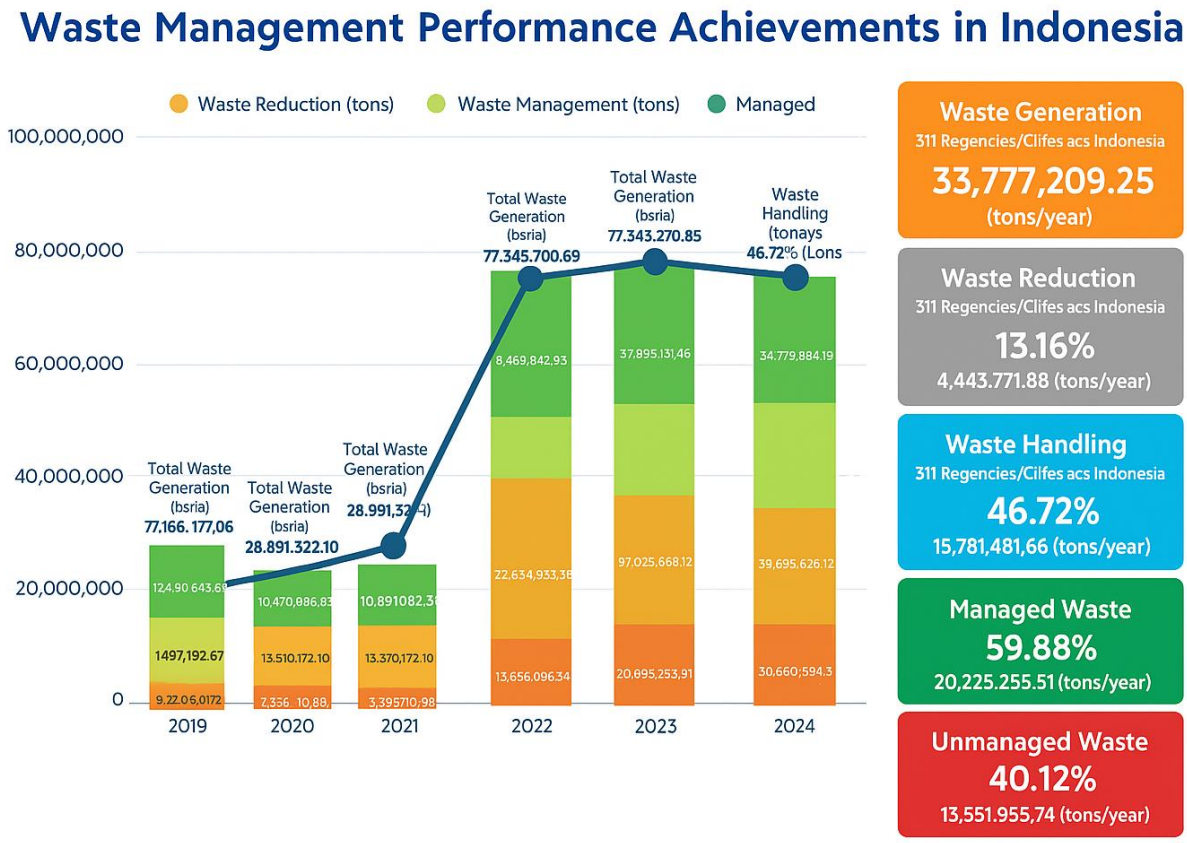


Figure 1.66 Waste Management Performance Achievements in Indonesia
Source: Processed from Ministry of Environment, 2024

The trend of waste management achievements in the last six years shows a gradual pattern of improvement, although it has not been consistent. In 2019, the waste management achievement was at 53.26%, then increased significantly to 60.89% in 2020, 62.58% in 2021, and reached the highest point of 63.18% in 2022. However, this achievement decreased again to 60.95% in 2023 and 58.75% in 2024. This fluctuation shows that despite general progress, waste management efforts still face complex challenges, ranging from uneven management capacity, limited infrastructure, to lack of data integration and sustainable community participation. To address these challenges, the government has implemented various policies and strategies, including the Extended Producer Responsibility (EPR) mechanism, the implementation of the National Household Waste Management Policy and Strategy (Jakstranas), as well as the development and facilitation of Waste Banks that directly involve the community in waste sorting and recycling activities.

The EPR policy promotes accountability among producers throughout the entire product lifecycle—from design to disposal—including the processes of waste collection and treatment. This approach not only focuses on minimizing waste generation at its origin but also encourages producers to design products that are more environmentally sustainable. In contrast, the National Waste Management Policy (Jakstranas) seeks to establish an organized and long-term waste management system, highlighting key principles such as waste reduction, source segregation, and eco-friendly processing methods. At the community level, Waste Banks serve as innovative grassroots solutions that have successfully increased public environmental awareness while offering financial benefits. These three policies are strengthened through the legal umbrella of Law No. 18/2008 on Waste Management, which emphasises that waste management is a shared responsibility and must be implemented based on the principles of sustainability, fairness, and economic value.

In recent years, Indonesia has also shown progress in waste management through recycling. Based on STATISTICS INDONESIA data in the publication *Indonesia's Sustainable Development Goal Indicators 2024*, the volume of waste successfully recycled in 2023 reached 18.17 million tonnes. This figure shows a significant increase when compared to 2019, reflecting the success of various policy interventions, strengthening processing infrastructure, public campaigns, as well as the involvement of the private sector and local communities in supporting the circular economy. However, this progress has faced several challenges, including poor recycling quality, unequal access to waste processing facilities, and excessive waste production at the source. To sustain the momentum and move toward a more efficient and long-lasting waste management system, it is essential to foster cross-sector collaboration and leverage advanced technologies.

1.1.3.2 Access to Safe and Efficient Public Transport Systems

Indonesia is committed to improving public access to safe, affordable, inclusive and sustainable urban transport systems. This commitment is realised through the integration of transport and mobility planning into comprehensive city and regional spatial plans. The government also encourages the development of various transport mode options by strengthening public transport infrastructure that is safe, efficient, accessible to all, and environmentally friendly. In addition, efforts to improve the transport system are accompanied by better and coordinated land use planning, in order to create a connected urban environment that supports sustainable mobility (NUA §114).

In the context of urban Indonesia, the Jabodetabek (Jakarta, Bogor, Depok, Tangerang, Bekasi) area is a region with a very high level of commuting. Based on the 2023 Jabodetabek Commuter Statistics from STATISTICS INDONESIA, it can be seen that the travel patterns of residents in this region are still dominated by the use of private vehicles, although there is an increasing trend in the use of public transport such as KRL, TransJakarta, and other public transport. The main obstacles faced by commuters include long travel times, passenger congestion, and limited intermodal connectivity. Therefore, the development of a safe and efficient transport system is an urgent need to support people's daily mobility.

Percentage of Commuters Using Public Transport

Enhancing public transportation systems plays a vital role in building cities that are inclusive, safe, resilient, and sustainable. Nevertheless, recent data indicates that there are still considerable obstacles to achieving this goal. In 2023, only 19.5% of commuters in the Greater Jakarta area use public transport, a decrease of 0.86% points compared to 2019 which was recorded at 20.36%. This decline reflects the low attractiveness of public transport modes for urban communities and the high dependence on private vehicles.

The Jabodetabek region is the largest metropolitan area in Indonesia that experiences very high population mobility daily. Based on the latest data, as many as 14.9% of the population aged 5 years and over or around 4.41 million people in this region are inter-city commuters. This figure shows the high dependence of people on cross-regional movements to fulfil their work and school needs. Data from Jabodetabek Commuter Statistics 2023 also shows that the majority of commuters, around 79%, still rely on private vehicles as the main mode of transport. Meanwhile, only 1.4% are classified as active commuters (walking or cycling), which reflects the low culture of sustainable mobility and has a direct impact on increasing carbon emissions and traffic congestion.

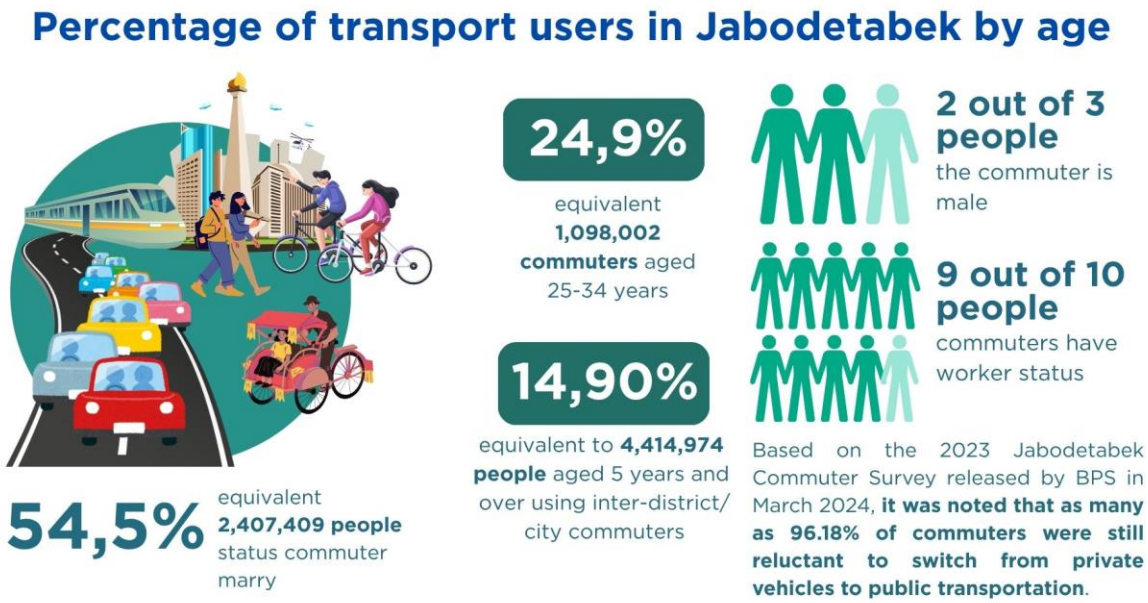


Figure 1.67 ***Percentage of transport users in Jabodetabek by age***
Source: STATISTICS INDONESIA, 2024

Furthermore, the socio-economic characteristics of commuters show that the majority are from the productive age group of 25-34 years old (24.9% or 1,098,002 people), and are dominated by men (2 out of 3 commuters). As many as 9 out of 10 commuters are employed, making them the backbone of urban economic productivity. In terms of family status, more than half of commuters (54.5% or around 2.4 million people) are married, which indicates that commuter mobility also has an impact on the quality of household life, both in terms of family time and household consumption patterns.

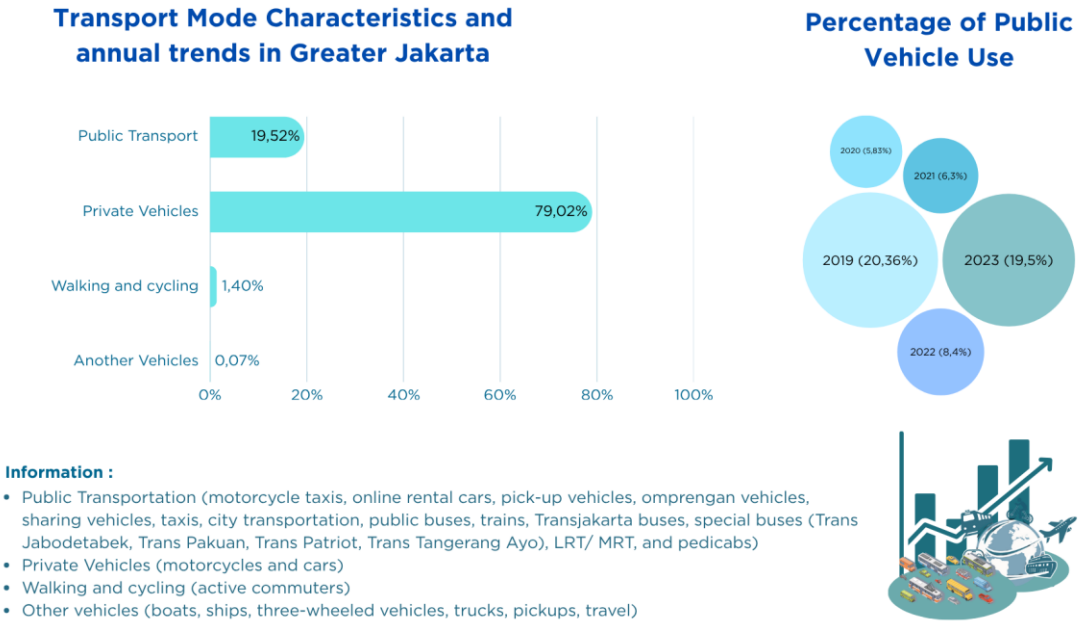


Figure 1.68 Transport Mode Characteristics and annual trends in Greater Jakarta
Source: STATISTICS INDONESIA, 2024

Based on the 2023 Jabodetabek Commuter Survey released by STATISTICS INDONESIA in March 2024, it was noted that 96.18% of commuters were still reluctant to switch from private vehicles to public transport. This figure increased by 4.58 percentage points compared to 2019 which was 91.6%. Impracticality and longer travel time were the main reasons expressed by 83.1% of respondents, followed by the lack of access to public transport by 58.7% of commuters. Only 3.8% or around 133,868 commuters expressed interest in switching to public transport, with female commuters recording a higher percentage (4.93%) than males. This fact shows that although various improvements have been made in the public transport system, such as route expansion, modal integration, and schedule certainty, it has not been enough to influence the perception and behaviour of the majority of commuters.

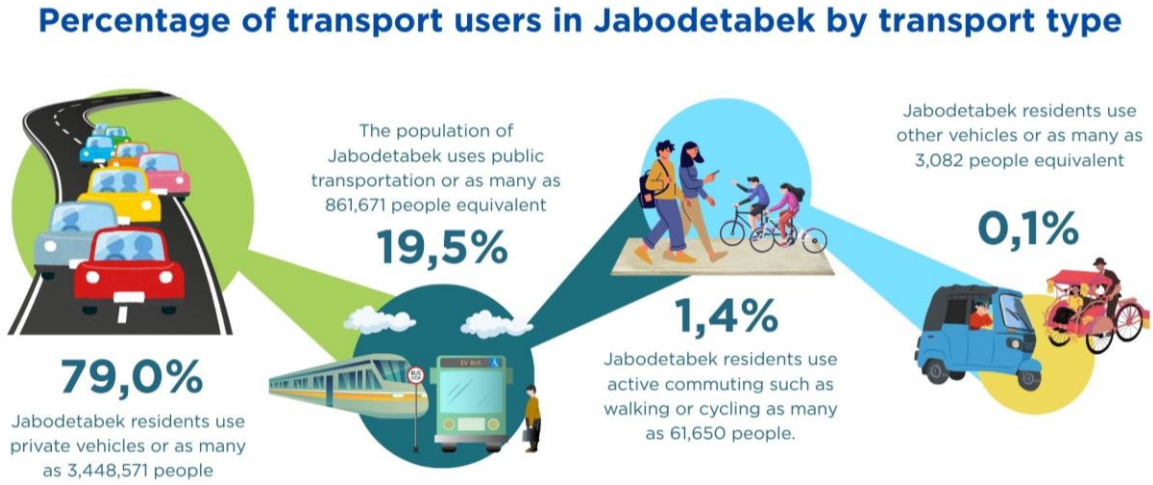


Figure 1.69 ***Percentage of transport users in Jabodetabek by transport type***
Source: STATISTICS INDONESIA, 2024

In comparison, the Sarbagita metropolitan area (Denpasar, Badung, Gianyar and Tabanan) also shows similar challenges in terms of mobility. The 2023 Sarbagita Commuter Survey noted that most trips are still made by private vehicles, especially motorbikes. Public transport usage remains limited due to inadequate infrastructure, the absence of an integrated transportation network, and a lack of comfort and reliable travel times. This highlights that issues related to public transport accessibility are not confined to the Jabodetabek region but are also present in other metropolitan areas across Indonesia.

To address ongoing challenges in public transport accessibility and encourage a shift toward more sustainable urban mobility, improvements must prioritize enhancing service quality, ensuring intermodal integration, and developing inclusive infrastructure. This includes the provision of dedicated lanes, barrier-free facilities, and accessible public transport systems that cater to the needs of vulnerable groups such as people with disabilities, children, and the elderly. In the context of Indonesia, these priorities align with national policies such as the National Urban Transport Policy (NUTP) and the National Medium-Term Development Plan (RPJMN) 2020–2024, which emphasize the development of inclusive, integrated, and environmentally friendly transportation systems.

A user-centred approach is essential, where public transport is designed based on the actual needs and behaviours of commuters. This includes ensuring reliable travel times, affordability, safety, and ease of transfer between different transport modes. Government commitment plays a critical role in achieving this, particularly through regulations, funding allocations, and coordination between ministries, local governments, and operators. Programs like the Buy the Service (BTS) scheme by the Ministry of Transportation aim to enhance public transport services in urban areas by subsidizing operators to ensure high-quality service delivery.

Furthermore, the promotion of Transit-Oriented Development (TOD) in major cities, such as Jakarta, Surabaya, and Medan, demonstrates Indonesia's policy direction toward integrating land use and transportation planning. By improving access to safe, convenient, and efficient public transportation, Indonesia can support not only reduced private vehicle dependency and lower emissions but also foster inclusive, equitable, and low-carbon urban growth. This makes public transport not just a mobility solution, but a foundation for more sustainable and resilient cities across the country.

Urban Mass Transport Development: Towards a Greener and More Sustainable City

The development of urban mass transport is a crucial part of creating greener, healthier and more sustainable cities. Rapid urbanisation has led to an increase in the number of private vehicles, which has resulted in traffic congestion, air pollution, and high fossil energy consumption. To meet this challenge, a strong push is needed from both the government and the public to shift mobility preferences from private vehicles to public and environmentally friendly modes of transport. The Indonesian government has responded to this issue with various strategic initiatives, ranging from the development of mass transport modes such as Mass Rapid Transit (MRT), Light Rail Transit (LRT), and Bus Rapid Transit (BRT), to the implementation of an integrated intermodal *ticketing* system. This effort is also strengthened by the construction of bicycle lanes, the implementation of the One Million Bicycle National Movement programme, and *Car Free Days* in various major cities (Ministry of Transportation, 2023).

One of the mainstay mass transport models in many Indonesian cities is BRT. Since the launch of TransJakarta in 2004, the BRT system has grown significantly and inspired the development of bus-based mass transport in various cities. Currently, there are at least 22 cities that have operated BRT systems, including Jakarta, Semarang, Tangerang, Medan, and Makassar. TransJakarta alone became an icon of success by setting a record as the longest BRT system in the world, covering 244 kilometres and serving more than 1 million passengers per day by 2024. The government has also drawn up plans to develop BRT and BTS (*Buy the Service*) services in 20 additional cities by 2029, demonstrating a strong commitment to equitable access to mass transport in urban areas.

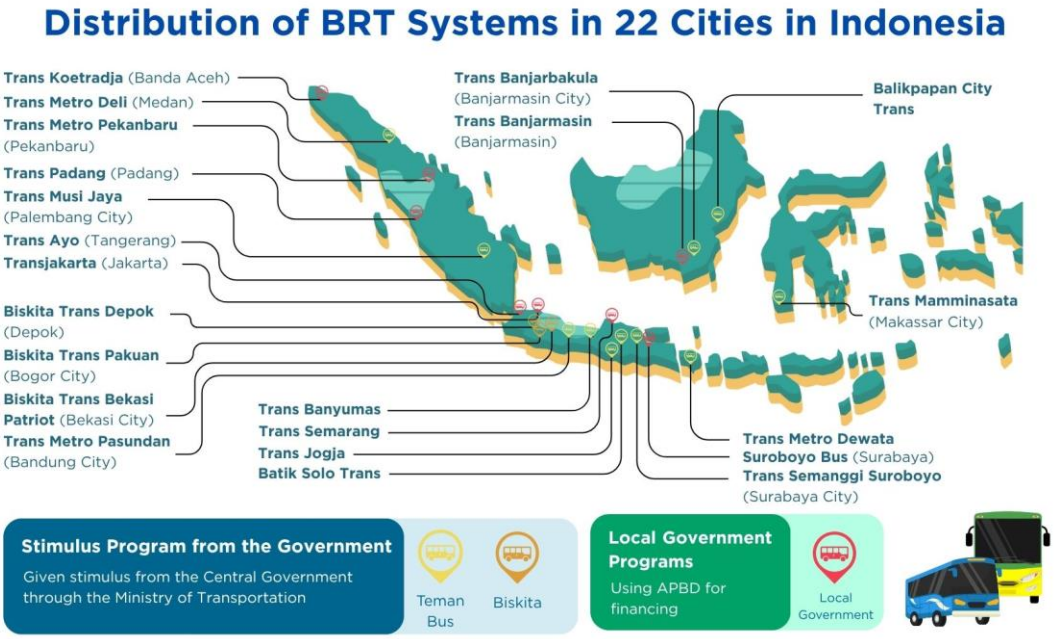


Figure 1.70 Distribution of BRT system

In line with the commitment to reduce carbon emissions and dependence on fossil fuels, the government is also encouraging the adoption of electric vehicles through fiscal and non-fiscal incentive schemes, as well as accelerating the development of transit-oriented development (TOD). TOD is a development concept that integrates settlements, public spaces, and activity centres around mass transportation nodes. This strategy not only improves mobility efficiency but also strengthens the attractiveness of public transport as the main choice of mobility for urban communities (Ministry of Public Works, 2023). With good integration of transport and urban planning, TOD is expected to create a healthier, more inclusive and low-carbon urban lifestyle.

Improving the quality of public spaces and pedestrian infrastructure is also an integral part of developing mass transport systems. Cities such as Jakarta and Batu have initiated pedestrianisation measures to support non-motorised mobility. In Jakarta, the Kota Tua area has undergone major revitalisation through the pedestrianisation of five streets around Fatahilah Park, creating a safer and more comfortable space for pedestrians and tourists. However, while the project has improved the aesthetics and functionality of the area, the results have not fully impacted the reduction of air pollution levels below the environmental quality threshold. Batu City is also inaugurating new pedestrian paths by the end of 2024, as part of a strategy to improve the quality of public services and tourist infrastructure. These measures reflect the spirit of reclaiming the streets-restoring urban space for people, not just for vehicles.

Although much progress has been made, the development of urban mass transport in Indonesia still faces challenges. Issues of intermodal integration, limited funding, resistance from private vehicle users, and a lack of sustainable mobility literacy in the community remain obstacles. Therefore, the success of mass transport initiatives requires cross-sector collaboration involving central and local governments, the private sector, and civil society. Data-driven approaches, strengthened regulations, and public education must be an integral part of the transformation of urban mobility systems. With the spirit of collaboration and a long-term vision, Indonesia has a great opportunity to build a transport system that is not only efficient, but also inclusive, healthy and low-carbon.

1.1.3.3 Access to Renewable Energy

Access to renewable energy plays a vital role in achieving urban development that is inclusive, resilient, and sustainable. Sources like solar, wind, hydro, bioenergy, and geothermal not only address the issues of climate change and environmental damage but also help decrease reliance on fossil fuels, which are becoming scarcer and contribute significantly to carbon emissions.

Improved access to clean energy in urban areas has a direct impact on people's quality of life. Renewable energy enables more reliable and environmentally friendly provision of basic services, such as lighting, cooling, transport and waste treatment. In addition, the development of renewable energy infrastructure also opens up opportunities for green job creation and fosters innovation in the energy and technology sectors.

Based on data from the Ministry of Energy and Mineral Resources (ESDM, the contribution of renewable energy to final energy consumption increased from 11.20% in 2020 to 13.21% in 2023. This achievement continues to grow to 14.1% in 2024, as confirmed in the official government report in early 2025. This increase indicates consistency in clean energy policy and programme implementation, as well as increased awareness at the national and local levels of the importance of energy diversification. However, these achievements show that there is still a gap between targets and actual achievements.

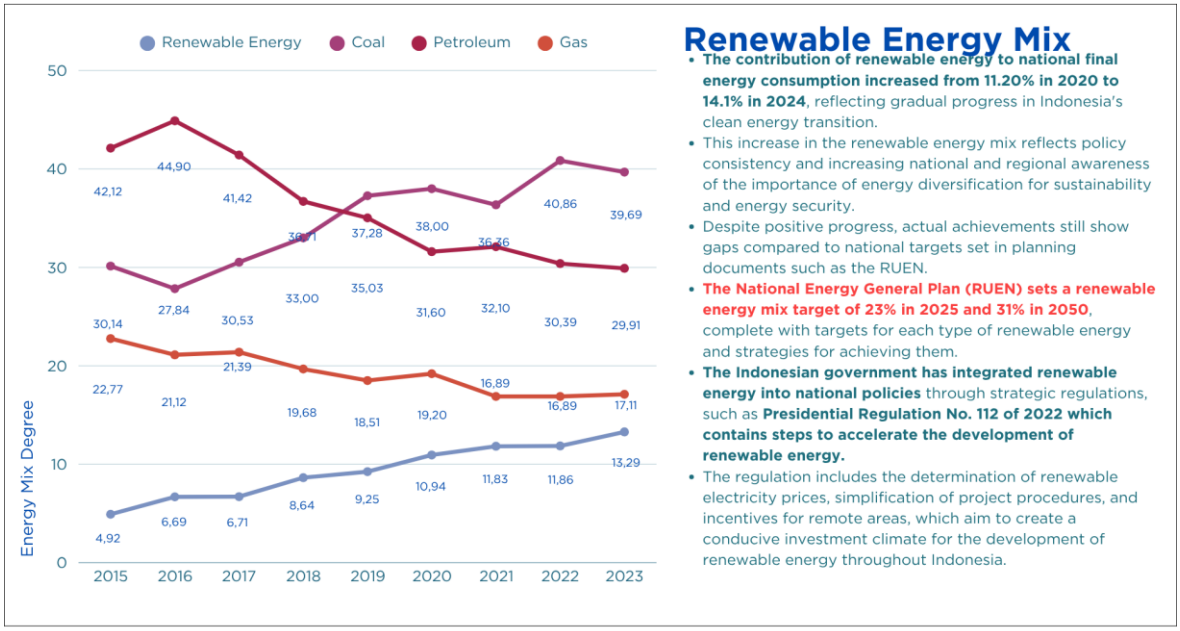


Figure 1.71 Renewable Energy Mix
Source: Ministry of Energy and Mineral Resources, 2023

The Indonesian government has demonstrated a strong commitment to transitioning to clean energy through various national policies and targets. Indonesia's commitment to developing renewable energy is not only driven by the need for energy sustainability, but also by global demands in tackling climate change. In the national context, energy policy is directed at creating a reliable, affordable and environmentally friendly energy system. The government has integrated new and renewable energy (EBT) into various strategic planning documents, which serve as the legal and operational basis for its development.

The National Energy General Plan (RUEN) stipulates that the renewable energy mix should reach 23% by 2025 and increase to 31% by 2050. RUEN sets detailed targets for each type of renewable energy, such as geothermal, bioenergy, hydro, solar, and wind, and develops a roadmap for infrastructure development, generation capacity, and funding scenarios. To achieve these targets, a number of strategic policies have been implemented, including Presidential Regulation No. 112 of 2022 on the Acceleration of Renewable Energy Development for Electricity Supply. Some important points of this regulation include: (1) National pricing of EBT electricity to provide business certainty. (2) Simplification of the process of land acquisition and utilisation for EBT projects. (3) Incentives for small and off-grid projects in remote and underdeveloped areas. This step shows the government's concrete efforts in creating a more conducive investment climate for clean energy development.

Challenges in the renewable energy sub-sector include 1) the availability of energy in Indonesia, the majority of which is still supported by fossil energy sources, 2) changes in energy consumption patterns in society, business, and industry due to policies restricting activities by the government, 3) delays in the implementation of the development of new renewable energy and electricity projects, and 4) hampered investment in new renewable energy and electricity. for this reason, the government is responding with policies that support renewable energy and strive for wider access to electricity to encourage clean and affordable energy for all people.

In urban areas, the development of renewable energy faces specific obstacles, including limited land availability, regulations that have yet to fully adapt, and low levels of energy awareness among local communities and stakeholders. Consequently, a cooperative effort

that brings together the government, private sector, academic institutions, and civil society is essential for the effective planning, funding, and execution of renewable energy initiatives.

The adoption of decentralised energy systems such as rooftop PV, waste-to-energy plants and energy efficiency technologies in public and residential buildings can be a strategic step to expand clean energy access in urban areas. In addition, the integration of energy policies with city spatial plans, as well as the development of fiscal incentives and inclusive financing schemes, are key to accelerating the energy transition at the local level.

Renewable Energy Potential in Indonesia

Indonesia has a huge potential of renewable energy sources, spread from Sumatra, Kalimantan, Sulawesi to Papua. The total EBT potential is estimated to reach 3,687 GW, with the largest potential coming from solar energy which reaches 3,294 MW. Solar energy holds significant and fast-growing potential for the future due to its widespread availability. It can be deployed not only on land but also through technologies such as floating photovoltaic (PV) systems and rooftop PV installations. This growth is further supported by advancements in technology that are becoming increasingly efficient and affordable. The Ministry of Public Works estimates that Indonesia's reservoirs have an additional potential capacity of 14,701.71 MW for floating solar power plants, spread across 257 sites nationwide.

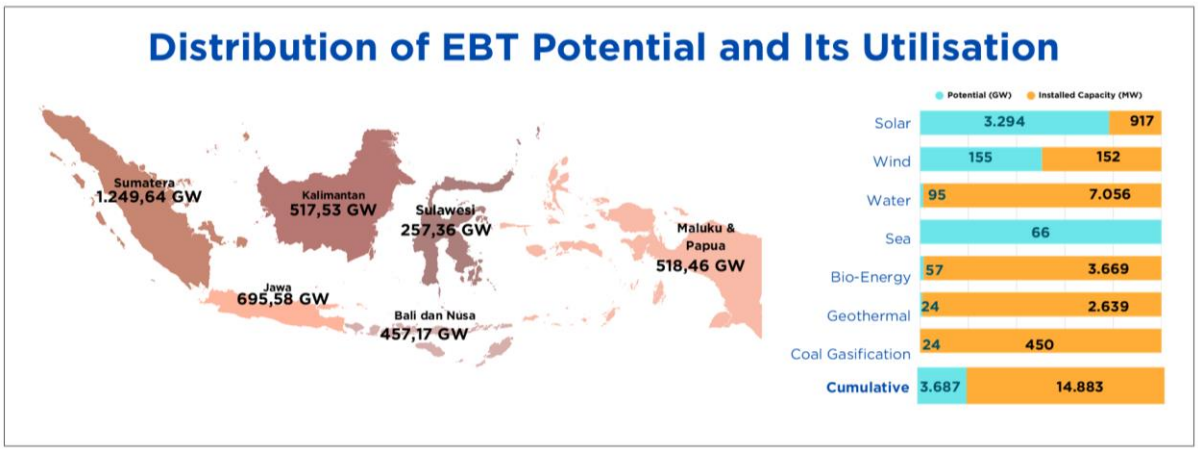


Figure 1.72 Distribution of EBT Potential and Its Utilisation
Source: Ministry of Energy and Mineral Resources, 2024

The utilisation of water for power generation currently plays an important role in achieving the national EBT mix target, considering that the installed capacity of EBT plants is dominated by hydro plants which include large, medium and small scale (PLTA / MH). In the future, hydropower plants will continue to be developed to their full potential, leveraging the benefits of hydro energy, such as stable and dependable electricity supply. Moreover, dams and reservoirs used in these facilities offer multiple functions, including flood mitigation, provision of raw water, irrigation support, and opportunities for economic growth through water-based tourism. These multifunctional advantages position hydro energy as a strategic and valuable investment for sustainable long-term development.

Based on Indonesia's geographical conditions, geothermal energy is one of the potential sources of renewable energy in increasing the contribution of clean energy in Indonesia. Until 2024, 362 geothermal potential points with a total capacity of 23.6 GW have been identified, as well as the establishment of 62 Geothermal Working Areas and 12 Assignment Areas for survey and exploration. The total capacity of Geothermal Power Plants (PLTP) currently reaches 2.6 GW or around 11% of the total national geothermal potential. This makes

Indonesia the second largest producer of geothermal electricity in the world. Some of the PLTP projects that have been operating include Sorik Merapi PLTP (41.25 MW), Salak Binari PLTP (16.15 MW), and Ijen PLTP (34 MW).

The development of Bioenergy Power Plants (PLT Bioenergy) is another means in achieving emission reduction targets in accordance with the Paris Agreement commitment and efforts to achieve the EBT Mix target of 23% in 2025. The development of bioenergy through the utilisation of agro-industrial waste and municipal waste into electricity is necessary to ensure the availability of safe and reliable electrical energy considering that PLT Bioenergy can be used as a baseload generator rather than intermittent.

Since 2020, the installed capacity of bioenergy power plants is one of the fastest growing renewable energy plants. In 2021, there was an additional 63.9 MW of capacity, in 2022 806.8 MW, and in 2023 270.8 MW. As a result, by 2023, the total capacity of bioenergy power plants will reach 3,393.4 MW. PLT Bioenergi itself is a power plant based on bioenergy power, which consists of PLTBg (Biogas), PLTBm (Biomass), PLTSa (Waste), and PLTBn (Biofuel).

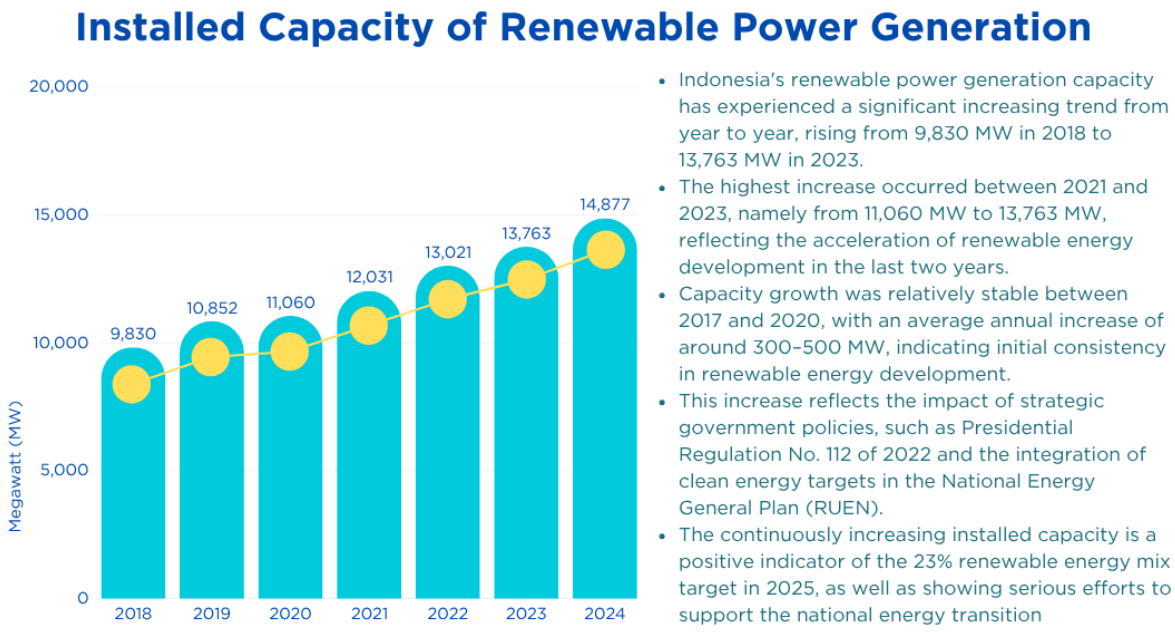


Figure 1.73 Installed Capacity of Renewable Power Generation
Source: Ministry of Energy and Mineral Resources, 2024

Minister of Energy and Mineral Resources Regulation Number 12 of 2023 has been issued, which regulates strategic policies related to the utilisation of biomass as a *co-firing* fuel in Steam Power Plants (PLTU). This regulation is an important milestone in the use of biomass power plants as part of the national electricity sector decarbonisation efforts.

The Indonesian government has designated the construction of PLTSa in 12 major cities as part of the National Strategic Project (PSN), in accordance with Presidential Regulation 35/2018. The cities include Jakarta, Surabaya, Surakarta, Bandung, Bekasi, Semarang, Tangerang, South Tangerang, Makassar, Denpasar, Palembang, and Manado. Some of the projects that have been operating include the 9 MW Benowo PLTSa in Surabaya (in 2021) and the 5 MW Putri Cempo PLTSa in Surakarta (in 2024).

In addition to processing waste into electrical energy or PLTSa, Refuse Derived Fuel (RDF) is also one of the innovations in waste management that converts solid waste into alternative fuel. For example, the RDF Plant at Tritih Lor Landfill, Cilacap, which processes 120 tonnes of waste per day and produces 40-50 tonnes of RDF for alternative fuel in the cement industry.

In DKI Jakarta, the RDF Plant at TPST Bantargebang has been operated since June 2023. This programme helps reduce dependence on fossil fuels, extends the life of landfills, and supports emission reduction targets and sustainable waste management.

The development of biofuels through the mandatory biodiesel blending programme into diesel oil continues to show an increase starting from B15 in 2015, B20 in 2016, B30 in 2020, B35 in 2023, and the implementation of B40 starting on 1 January 2025 in accordance with the Decree of the Minister of Energy and Mineral Resources No. 341.K/EK.01/MEM.E/2024 with an allocation of 15.6 million kilolitres, consisting of 7.55 million kilolitres for PSO and 8.07 million kilolitres for non-PSO, and is expected to increase to B50 in 2026. The shift from diesel fuel to biofuel represents a key strategic initiative by the government to boost the share of renewable energy in Indonesia. This transition not only contributes significantly to reducing diesel imports—resulting in foreign exchange savings of up to Rp 147.5 trillion by 2024—but also enhances the added value of Crude Palm Oil (CPO) by Rp 20.9 trillion. Additionally, it supports the creation of over 1.95 million jobs and contributes to cutting greenhouse gas emissions by approximately 34.83 million tonnes of CO_2 equivalent annually. These renewable energy development strategies are an important part of national efforts in transitioning to a cleaner, more sustainable and inclusive energy system in Indonesia so as to achieve the Net Zero Emission target by 2060 or sooner.

1 .1.3.4 Access to Information and Communication Technology (ICT)

Indonesia has demonstrated a strong commitment to implementing the New Urban Agenda by promoting equitable and affordable access to information, and strengthening connectivity between urban and rural areas through the development of information and communication technology (ICT) infrastructure and sustainable transport systems. This commitment is in line with the principles of integrated urban and regional planning as set out in NUA §34, 36, and 50.

In the period 2020-2023, Indonesia recorded significant progress in the use of ICT, as indicated by an increase in household internet access to reach 87.09% in 2023 and an increase in individual access to the internet from 53.73% in 2020 to 69.21% in 2023. Mobile phone ownership continues to trend upwards, while computer ownership remains stagnant and fixed-line telephony continues to decline. Disparities in ICT access still exist, especially between urban and rural areas and between regions, with the main challenges being limited infrastructure, geographical conditions, and uneven signal coverage.

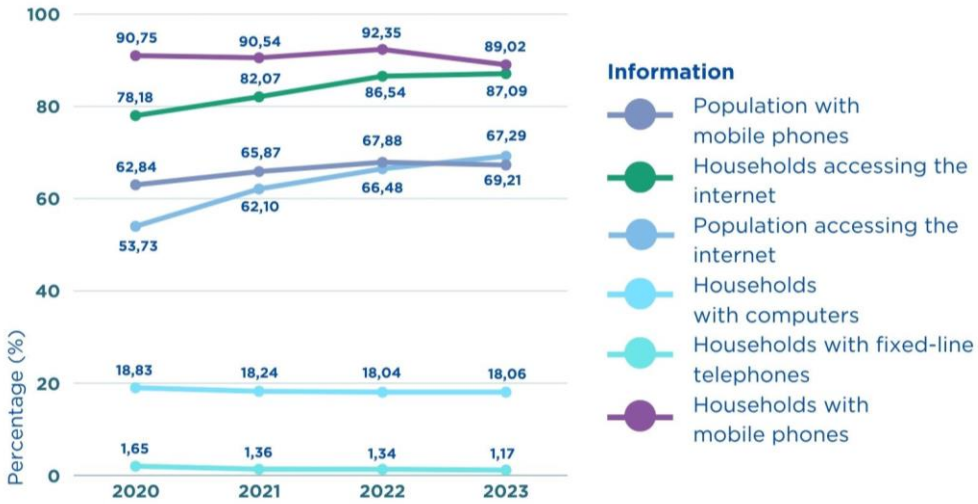


Figure 1.74 ICT user population (2020-2023)
Source: Ministry of Communications and Digital, 2024

Nonetheless, internet usage continues to increase, especially among the working-age population and students. Wider internet access is also fuelled by the growth of mobile technology and Wi-Fi connectivity that is more accessible than home computers. However, Indonesia's fixed broadband internet access speed still lags behind globally, ranking 121st in the world, with an average download speed of 32.13 Mbps and upload speed of 20.52 Mbps. This is still far behind the global average of 97.61 Mbps for downloads and 57.84 Mbps for uploads.

However, the achievement of fixed broadband penetration is still fluctuating. Although the target has increased, the output in 2024 (21.32%) is still below the output in 2022 (22.91%), reflecting the challenges of network expansion, especially in underdeveloped and remote areas. Fibre-optic infrastructure has reached almost all cities, but penetration at the village level still lags behind. Nationally, only 62.16% of villages have been supported by fibre optic networks. This disparity is particularly found in regions such as Kalimantan, Maluku, and Papua, which face geographical challenges and limited infrastructure investment.

Nonetheless, these challenges did not hinder the increase in internet usage by the population, which rose from 66.48% in 2022 to 69.21% in 2023, in both urban and rural areas. Riau Islands recorded the highest percentage of internet usage, while Papua recorded the lowest. Internet users are dominated by the productive age group (25-49 years old) and more than 84% of them are currently in school.

However, the Indonesian government and service providers continue to improve infrastructure quality and encourage faster adoption of fixed broadband technology. This is done through the expansion of fibre optic networks, development of 5G infrastructure, implementation of fiscal incentive policies, simplification of licensing, and implementation of subsidy and installation assistance programmes. The expansion of fixed broadband infrastructure is also focused on reaching areas that have been underserved.

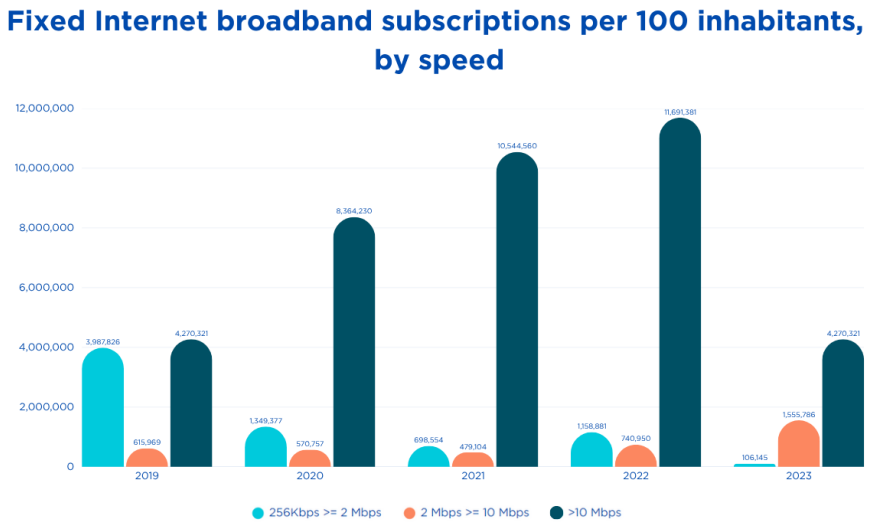


Figure 1.75 Fixed Internet broadband subscriptions per 100 inhabitants, by speed
Source: Ministry of Communications and Digital, 2024

The development of the number of fixed internet subscribers by bandwidth category from 2019 to 2023 shows significant changes in speed preferences. In 2020, the number of subscribers with speeds >10 Mbps began to dominate with 8.36 million subscribers, far surpassing the other two categories. This upward trend continues and peaks in 2022 with 11.69 million subscribers. This reflects the shift in demand for high-speed internet services. However, in 2023 there is a drastic decline in the >10 Mbps category to only 106 thousand subscribers,

while the other categories actually show an increase, especially in the 2-10 Mbps category with 1.56 million subscribers. These changes may reflect technology transitions, market adjustments, or changes in data reporting methods.

Meanwhile, subscribers with low bandwidth (256 Kbps - < 2 Mbps) experienced a drastic decline from nearly 4 million in 2019 to only around 106 thousand in 2023. The medium category (2 Mbps - < 10 Mbps) was stagnant, but experienced a sharp increase in 2023, reaching more than 1.5 million subscribers. Interestingly, 2023 saw a significant drop in subscribers >10 Mbps compared to the previous year, which may be due to changes in policies, tariffs, or other technical factors.

The development of fixed broadband in Indonesia shows a positive growth trend from 2020 to 2022, both in terms of the number of subscribers and the increase in service speeds. The shift in customer preferences towards high-speed services (>10 Mbps) indicates the increasing need for faster and more stable internet connections to support digital activities such as streaming, online conferencing, and cloud-based services. Although in 2023 there is a decline in penetration, this phenomenon is more reflective of changes in internet consumption patterns and external challenges, such as mobile broadband adoption and infrastructure expansion constraints in certain areas. To maintain growth momentum, sustained efforts are needed to expand networks, optimise infrastructure, develop policies that promote affordability, and improve digital literacy and adoption across all levels of society.

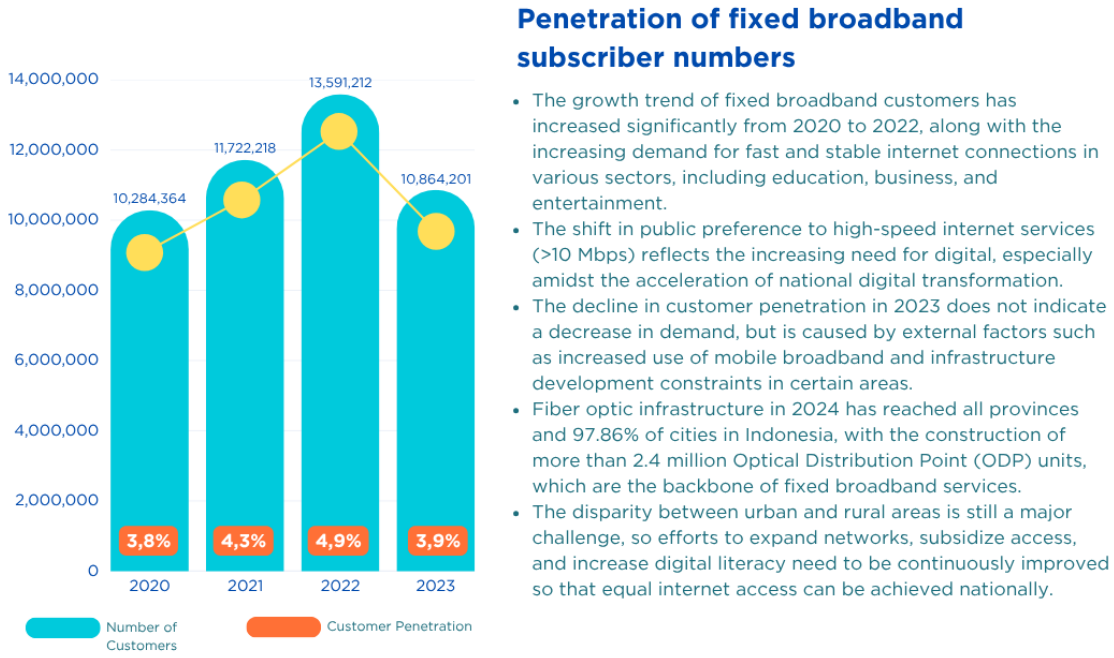


Figure 1.76 Penetration of fixed broadband subscriber numbers
Source: Ministry of Communications and Digital, 2024

In terms of infrastructure, the condition of optical fibre in 2024 has reached all provinces and most cities (97.86%), supported by the installation of 2,418,941 Optical Distribution Point (ODP) units. However, the development of infrastructure and penetration of fixed broadband services has not been evenly distributed, especially seen in the comparison of achievements between urban and rural areas.

While penetration at the city level is very high (97.86% of cities covered by fibre optic), penetration at the village level is still lagging behind (48.59% of villages covered by ODP), and in general the penetration of households served by fixed broadband at the village level is also lower (62.16% of villages are covered by fibre optic networks in general). This gap is due to

Indonesia's vast and archipelagic geography, especially in areas such as Kalimantan, Maluku and Papua, which poses a significant challenge to equitable fixed broadband infrastructure development. The total length of fibre optic network is 905,406.79 Km for inland and 126,073.76 Km for Sea Cable Communication System (SKKL).

Figure 1.77 Fibre optic services
Source: Ministry of Communications and Digital, 2024

Figure 1.78 Distribution of ODP units
Source: Ministry of Communications and Digital, 2024

1.2 Sustainable and Inclusive Urban Prosperity and Opportunity for All

1.2.1 Inclusive Urban Economy

1.2.1.1 Achieving productive employment for all, including youth employment

Indonesia is committed to improving economic productivity by expanding labour access to income opportunities, knowledge and skills development, and educational facilities, as mandated in the New Urban Agenda (NUA §56). One important indicator in measuring youth engagement in economic development is the proportion of youth who are not working, not in school, and not in training (NEET). The NEET rate reflects the number of youth who are not participating in productive activities in education, employment, or skills training, including those who face barriers such as job hopelessness, disability, limited access to transport and education, financial constraints, and household obligations.

Proportion of young people (aged 15-24 years) not in education, employment or training

Based on the results of the 2024 National Labour Force Survey (Sakernas), the percentage of youth who are NEET is recorded at 23.78%. In other words, around 20 out of every 100 youth in Indonesia are out of the world of work, education, or training. This figure shows an improvement compared to the NEET rate in 2020 which reached 24.28%.

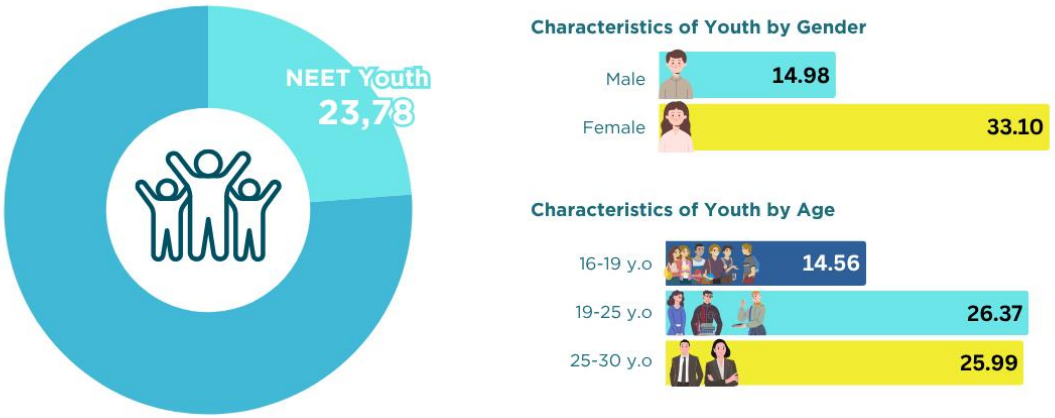


Figure 1.79 Youth not in education, employment or training (2024)
Source: STATISTICS INDONESIA, 2024

The majority of youth NEET have a primary school education, with a percentage of 30.36%, while the age range of 19-24 years old is 26.37% and the age range of 25-30 years old is 25.99%. This figure is quite high which means that there are 52 out of 100 youth who are not in education, employment or training are in that age range. Efforts to reduce the NEET rate are important in realising an innovative, productive and inclusive urban economy, in line with the NUA's vision of sustainable development.

In terms of gender, the percentage of female youth who are NEET at 33.10% is almost one and a half times higher than that of male youth at 14.98%. Meanwhile, from a regional perspective, the NEET rate in rural areas (25.23%) is higher than that in urban areas at 22.80%. This figure tends to stagnate and even increase compared to the previous year.

Annual Growth Rate of Real GDP per Employed Person

Indonesia highlights the importance of harnessing the opportunities presented by urbanisation as an engine for sustainable and inclusive economic growth, social and cultural development, and environmental protection, in line with its commitment to transformational and sustainable development (NUA §4). The New Urban Agenda transforms approaches to planning, designing, financing, developing, managing and governing cities and human settlements, with the aim of contributing to the elimination of poverty and hunger in all their forms, reducing inequalities, and promoting sustainable and inclusive economic growth (NUA §5). In this context, real Gross Domestic Product (GDP) per person employed is an important indicator in measuring labour productivity. This indicator not only reflects labour productivity growth, but also provides valuable information for governments, businesses, and the public in formulating strategies to improve productivity, competitiveness, and overall economic well-being.

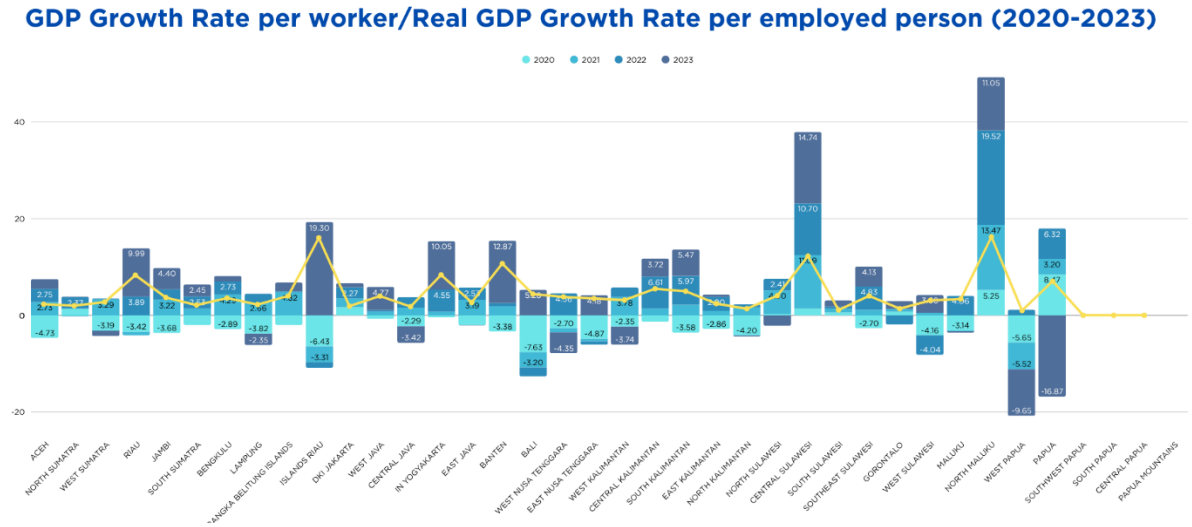


Figure 1.80 GDP Growth Rate per worker/Real GDP Growth Rate per employed person (2020-2023)
Source: STATISTICS INDONESIA, 2024

The national growth rate of real GDP per working person was recorded at 1.63% in 2023. This achievement shows a recovery from the contraction of -1.84% in 2020 due to the impact of the global pandemic, although it is still lower than the growth rate of 2.94% in 2019. Analysis of the growth rate of real GDP per working person at the provincial level over the 2021-2023 period shows fluctuating dynamics. In 2023, Central Sulawesi Province recorded the highest growth rate of 14.74%. In contrast, Papua Province experienced the lowest growth rate of -16.87%, which was the lowest value throughout the observation period.

Overall, the highest labour GDP growth rate over the past three years occurred in North Maluku Province in 2022, reaching 19.52%. This underscores the importance of strengthening policies to promote sustainable and inclusive economic growth across the region, as mandated in the New Urban Agenda. Provinces with negative or low growth require special interventions to accelerate economic recovery, while provinces with high growth performance need to continue to be supported to maintain momentum and promote equitable national development.

1.2.1.2 Supporting the Informal Economy

One of the commitments in the New Urban Agenda is to recognise the contribution of poor workers in the informal economy, particularly women, and to gradually shift workers and economic units from the informal to the formal sector by combining incentives and compliance measures, while ensuring the preservation and enhancement of existing livelihoods (NUA

§59). In contexts where social protection coverage is limited, social security benefits (such as unemployment insurance) are insufficient or even non-existent, and/or where wages and pensions are low, individuals may have to take up informal employment to ensure their survival. In these situations, indicators such as the unemployment rate will provide a very incomplete picture of the labour market situation, overlooking major shortcomings in job quality. Statistics on informality are crucial for assessing the quality of employment in the economy.

Proportion of Informal Employment in Non-Agricultural Occupations by Gender

The non-agricultural sector is highlighted as a key pillar of the urban economic structure, encompassing industry, services and trade. In many developing countries, including Indonesia, this sector is the largest employer, but is often characterised by high levels of informality, which has direct implications for the socio-economic vulnerability of the community.

The following table presents data on the proportion of informal labour in the non-agricultural sector by province in Indonesia over the period 2015 to 2024. This proportion represents the percentage of workers who work outside the formal sector, such as workers without fixed contracts, casual workers, or those who work in the micro and small business sector without formal employment protection. This data is important for understanding the dynamics of labour in Indonesia, especially in measuring the level of economic vulnerability of workers outside the agricultural sector.

Table 1. 1 Proportion of informal labour in the non-agricultural sector by province in Indonesia (2015-2024)

PROVINCE	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
ACEH	40,51	41,64	42,27	43,06	41,31	47,59	46,29	44,13	44,52	45,92
NORTHERN SUMATERA	44,69	40,73	44,18	43,47	42,24	48,02	47,53	46,45	47,19	46,13
WEST SUMATERA	50,48	48,31	50,48	50,84	48,34	53,44	51,56	52,38	51,54	49,47
RIAU	36,04	37,21	38,73	41,41	40,81	44,66	44,07	44,3	43,08	43,33
JAMBI	41,44	44,51	40	39,42	40,9	47,11	45,97	44,76	45,37	45,86
SOUTH SUMATRA	41,66	44,69	42,15	42,74	44,61	49,42	48,2	45,1	47,28	45,49
BENGKULU	44,94	49,79	44,66	47,67	47,25	50,69	51	47,72	49,03	48,42
LAMPUNG	54,68	52,6	54,85	55,83	53	57,5	56,7	55,67	55,57	54,92
KEP. BANGKA BELITUNG	39,92	45,61	36,13	38,43	36,37	42,74	43,98	43,49	44,77	44,76
KEP. RIAU	22,1	28,3	27,26	27,57	25,33	30,87	30,93	32,57	29,45	28,63
DKI JAKARTA	26,95	31,12	28,41	30,08	31,31	38,16	38,16	36,82	36,12	36,14
WEST JAVA	43,37	41,08	42,82	42,09	44,24	48,82	48,17	48,57	49,23	48,7
CENTRAL JAVA	50,16	48,85	49,53	50,82	47,41	52,14	50,57	49,99	50,39	48,73
YOGYAKARTA	38,44	42,54	45,24	43,98	41,26	48,21	46,61	44,19	43,2	42,88
EAST JAVA	47,9	45,84	47,34	47,64	47,29	51,1	50,16	50,73	50,08	48,52
BANTEN	30,93	30,33	34	36,83	36,68	43,17	43,36	42,5	40,48	39,28
BALI	41,41	44,02	39,26	38,37	39,39	46,2	46,82	43,45	42,9	41,71
NUSA TENGGARA BARAT	58,12	58,42	60,68	59,4	59,96	60,31	62,67	63,17	59,65	55,77
NUSA TENGGARA TIMUR	47,68	48,13	49,96	49,56	49,02	52,66	53,76	52,98	51,68	49,69
WEST KALIMANTAN	38,47	40,96	39,02	36,45	39,25	43,92	43,61	41,39	42,2	39,49
CENTRAL KALIMANTAN	42,04	44,4	40,82	40,54	40,25	45,97	45,91	40,98	43,63	42,29
SOUTH KALIMANTAN	44,8	48,4	47,66	46,75	45,26	48,79	47,55	43,37	43,8	41,19
EAST KALIMANTAN	31,17	35,51	31,61	32,93	34,66	39,27	38,5	36,54	36,76	35,89
NORTHERN KALIMANTAN	27,11	28,32	29,85	30,03	33,53	39,17	37,11	33,73	36,93	37,64

PROVINCE	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
NORTH SULAWESI	46,66	46,79	44,37	45,45	43,87	49,3	51,32	49,43	49,55	46,03
CENTRAL SULAWESI	43,62	44,05	47,26	46,11	44,35	47,95	48,93	49,37	48,24	47,86
SOUTH SULAWESI	42,1	46,69	42,79	45,04	42,35	46,05	46,27	44,89	46,11	44,11
SOUTH-EAST SULAWESI	48,73	50,77	44,98	45,94	46,38	47,69	47,34	45,98	47,39	46,46
GORONTALO	49,76	46,7	47,63	49,55	45,38	49,71	50,32	52,03	51,72	51,17
WEST SULAWESI	47,21	48,68	46,72	54,05	52,94	54,2	54,91	57,15	52,7	52,62
MALUKU	45,48	44,15	44,18	48,25	44,98	52,08	49,97	48,04	52,17	52,31
NORTH MALUKU	45,05	45,98	42,85	42,59	39,25	44,66	50,8	54,29	56,18	54,86
WEST PAPUA	37,06	39,3	41,31	35,16	35,56	41,72	41,07	38,02	38,71	39,87
SOUTHWEST PAPUA	-	-	-	-	-	-	-	-	-	41,45
PAPUA	34,57	39,18	33,8	34,7	37,24	41,38	41,15	45,83	53,28	41,22
SOUTH PAPUA	-	-	-	-	-	-	-	-	-	40,68
CENTRAL PAPUA	-	-	-	-	-	-	-	-	-	55,4
PAPUA PEGUNUNGAN	-	-	-	-	-	-	-	-	-	64,85
INDONESIA	**43,37**	**43,09**	**43,75**	**44,19**	**43,84**	**48,57**	**47,99**	**47,45**	**47,59**	**46,44**

Source: Labour Statistics, STATISTICS INDONESIA 2024

Based on the national data above, the proportion of informal workers in the non-agricultural sector in Indonesia over the period 2015 to 2024 shows an average of 45.67%, with a minimum value of 43.09% in 2016 and the highest peak reaching 48.57% in 2020. The sharp increase in 2020 reflects the direct effect of the COVID-19 pandemic, which pushed many workers to move to the informal sector due to social restrictions, layoffs, and a decline in formal economic activity. Despite a gradual decline after 2020, the proportion of informal workers remains higher than before the pandemic, indicating a slow recovery of the formal sector.

Spatially, the differences between provinces are quite striking. The province with the highest proportion is consistently West Nusa Tenggara, with a value that reached 62.67% in 2021 and remains above 59% until 2024. Other provinces such as Papua, West Sulawesi and Maluku also show high levels of informality, with average values above 50%. This indicates structural inequality in the labour market between regions, which is influenced by a number of factors such as access to education, industrialisation, and the quality of labour regulation and supervision.

In contrast, DKI Jakarta, Riau Islands and East Kalimantan are the provinces with the lowest levels of informality. DKI Jakarta has consistently recorded a proportion below 39%, even reaching a low of 26.95% in 2015. This reflects the region's more formalised and integrated economic structure, with the dominance of the services sector and modern industries that provide more formal jobs with legal and social protection.

The high proportion of informal employment in the non-agricultural sector means that a large proportion of the population works without legal protection, formal labour contracts, or access to social security systems. In addition, many small and micro businesses-such as street vendors, casual daily labourers, and domestic workers-are considered informal because they are not officially registered and are not bound by the formal employment system. The non-agricultural sector is growing, but most of its activities remain informal, especially in the informal trade and services subsector. This is due to several factors, including the limited formal employment opportunities in the industrial and service sectors that can absorb labour on a permanent basis, especially in areas outside urban areas. This condition also reflects challenges in improving the quality of human resources and the mismatch between labour skills and the needs of the formal labour market.

This poses a serious challenge to achieving the goals of the NUA, which emphasise the principles of *decent work*, increased urban productivity, and strengthened local economies.

When informal employment dominates, cities tend to experience unequal economic growth, increased social inequality, and limitations in achieving sustainable development. Strengthening this indicator requires cross-sector collaboration from the government, both at the national and local levels, to encourage labour market formalisation. Efforts such as incentives for MSMEs to register workers, strengthening labour inspection, expanding inclusive social security, and improving labour skills need to be the focus of the future labour development agenda. In addition, special support needs to be given to provinces with high informality rates to reduce inequality and create a more inclusive and sustainable labour market.

This indicator becomes even more important when analysed by gender, given the structural differences in access, quality and working conditions between men and women in the informal labour market. According to data from the 2024 National Labour Force Survey (Sakernas), informal workers in both the agricultural and non-agricultural sectors as a whole predominantly live in rural areas (51.85%) with a predominance of male gender (56.37%). The three provinces with the highest percentage of people working in the informal sector are mountainous Papua (85.76%), central Papua (87.02) and East Nusa Tenggara (73.32). Meanwhile, the three provinces with the highest percentage of people working in the formal sector are Riau Islands (68.45%), DI Jakarta (63.69) and East Kalimantan (57.68%).

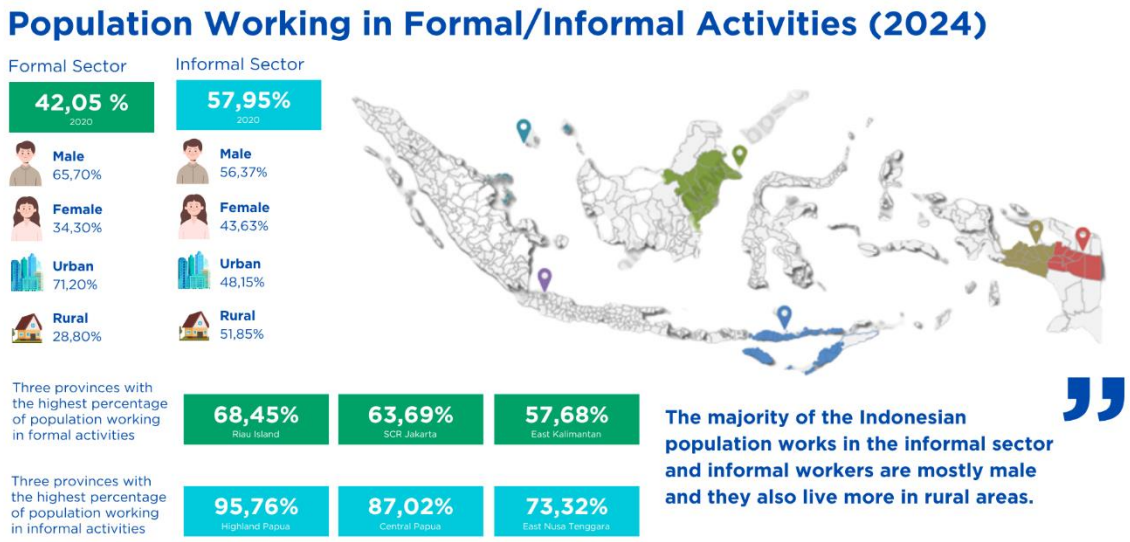


Figure 1.81 Population working in formal/informal activities (2024)
Source: National Labour Force Survey (Sakernas) 2024

The proportion of the population working in the informal sector tends to decrease from 2020-2024. In 2020, the population working in the informal sector reached 60.47% and continued to decline to 57.95% in 2024. Compared to the non-agricultural sector, which was around 48.44% in the same year, this difference indicates that the agricultural sector contributes a significant portion of informal employment, which is almost 10%. This is because the agricultural sector in Indonesia is still dominated by family farms, casual farm labourers, and small farmers who work independently without formal employment ties, without contracts, and without social security or labour protection. The main reasons for the high informality in the agricultural sector are low mechanisation, lack of business scale that can support formal employment structures, and farmers' limited access to large agribusiness institutions or companies. Even so, there are forms of formal employment in the agricultural sector, such as permanent workers in large plantation companies (e.g. palm oil, tea or sugarcane), agricultural extension staff who are civil servants or government contract employees, and workers in agricultural technology companies or food corporations that have formal employment

structures and labour protection. However, their numbers are still relatively small compared to the total number of workers in the agricultural sector.

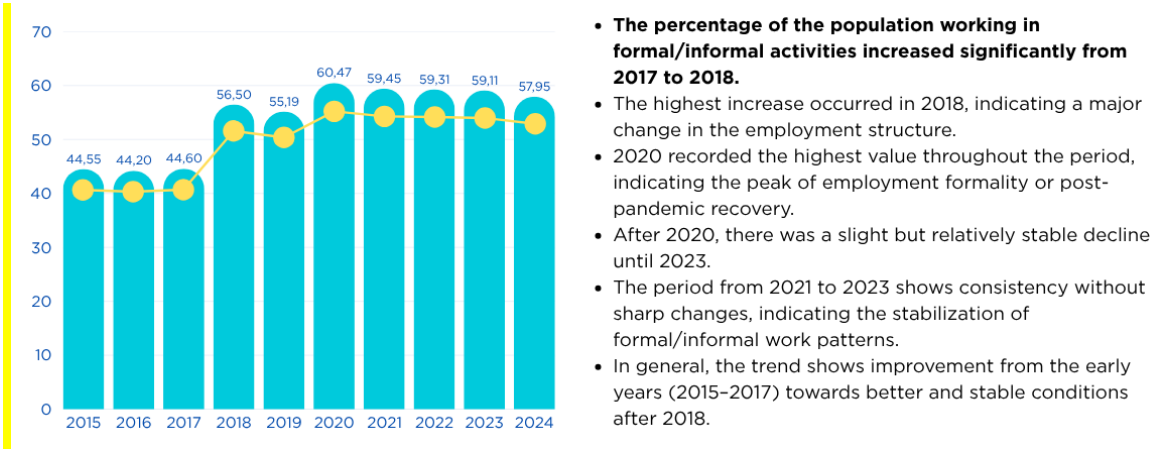


Figure 1.82 Population working in formal/informal activities
Source : https://sdgs.bappenas.go.id/dashboard/

1.2.1.3 Supporting small and medium-sized enterprises

In order to strengthen local economic capacity and support digital transformation as mandated in the New Urban Agenda, strengthening micro, small and medium enterprises (MSMEs) through the use of digital technology is very important. Digitalisation of MSMEs not only plays a role in improving business efficiency and competitiveness, but also opens up wider opportunities for businesses to access domestic and global markets, create new jobs, and encourage more inclusive and sustainable economic growth.

Between 2020 and 2024, the number of MSMEs in Indonesia grew steadily, reflecting their resilience and expanding role in the economy. In 2020, there were approximately 64.2 million MSMEs, increasing to 64.9 million in 2021, 65.5 million in 2022, and 66 million in 2023. By 2024, the number is projected to reach 66.5–67 million, driven by the rise of digital microbusinesses, youth entrepreneurship, and supportive government programs. Throughout this period, MSMEs consistently made up 99% of all business units in Indonesia, highlighting their dominance in the national business landscape.

MSMEs have consistently played a crucial role in Indonesia's economy, contributing between 60.3% and 61.5% of the national GDP within the period 2020 to 2024. In 2020, MSMEs contributed around Rp8,500 trillion, slightly declining due to the pandemic. As the economy recovered, their GDP contribution rose steadily—60.5% in 2021, 60.9% in 2022, and 61% in 2023, equivalent to Rp9,580 trillion. By 2024, projections estimate their contribution will reach Rp10,200–10,300 trillion or 61.3–61.5% of GDP, supported by increased digital adoption, financial access, and consumer demand. This trend underscores the resilience and growing economic significance of MSMEs in Indonesia's post-pandemic recovery and long-term development.

Digital Transformation and *E-Commerce* Business Growth

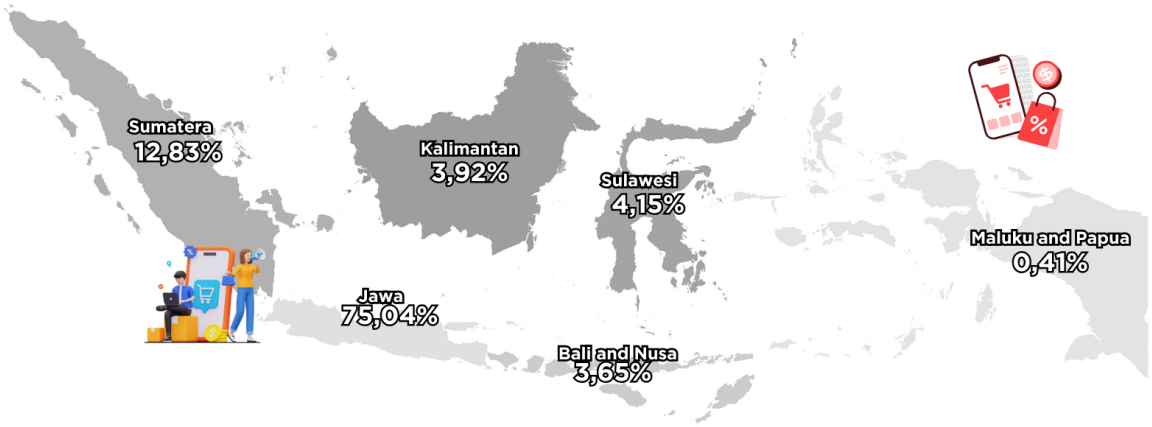
Formalising MSMEs through e-commerce is an important strategy pushed by the government to improve the competitiveness, productivity and market access of small businesses in the digital era. The main reason for this step is because the majority of MSMEs in Indonesia are still in the informal sector, have difficulty accessing formal financing, and have limitations in business records and marketing. As internet penetration and the use of digital devices

increase, e-commerce becomes a strategic entry point to bring MSMEs into the formal ecosystem, as digital platforms require businesses to have legality, business identity, and a recorded transaction system.

The results of the E-Commerce Survey show that as of 31 December 2023, 41.51% of businesses have conducted e-commerce activities, while the remaining 58.49% are still running businesses conventionally. The number of businesses engaged in e-commerce was recorded at 3,816,750 units in 2023, an increase of 27.40 % compared with the previous year which amounted to 2,995,986 units. Of these, 43.25% had been selling online before 2020 or before the onset of the COVID-19 pandemic. A total of 43.29% of businesses started to switch to online sales during the COVID-19 pandemic (2020-2022), while the remaining 13.46% only started online sales in 2023. This growth reflects the increasing adoption of digital technology among businesses in Indonesia, while emphasising the importance of supporting the improvement of digital literacy in the business sector.

The value of e-commerce transactions in Indonesia in 2023 is IDR 1,100.87 trillion. This figure increased by 40% compared to 2022 which amounted to IDR 783 trillion with details of IDR 200.68 trillion from online sales through marketplaces/digital platforms and IDR 900.19 trillion from online sales other than marketplaces/digital platforms (STATISTICS INDONESIA, 2024). The types of goods sold through e-commerce transactions are dominated by food/beverages (43%), fashion (15.04%), household needs (8.11%), transport services (5.86%) and cosmetics (5.37%).

Geographically, the concentration of e-commerce businesses in Indonesia is still highly concentrated in Java, which hosts 75.04% of the total national e-commerce businesses. The province with the highest number of e-commerce businesses is West Java (818,077 businesses or 21.43%), followed by East Java (698,868 businesses or 18.31%), Central Java (674,016 businesses or 17.66%), DKI Jakarta (343,115 businesses or 8.99%), Special Region Yogyakarta (193,849 businesses or 5.08 %), and Banten (136,205 businesses or 3.57 %). Meanwhile, 24.96 % of e-commerce businesses are spread outside Java.

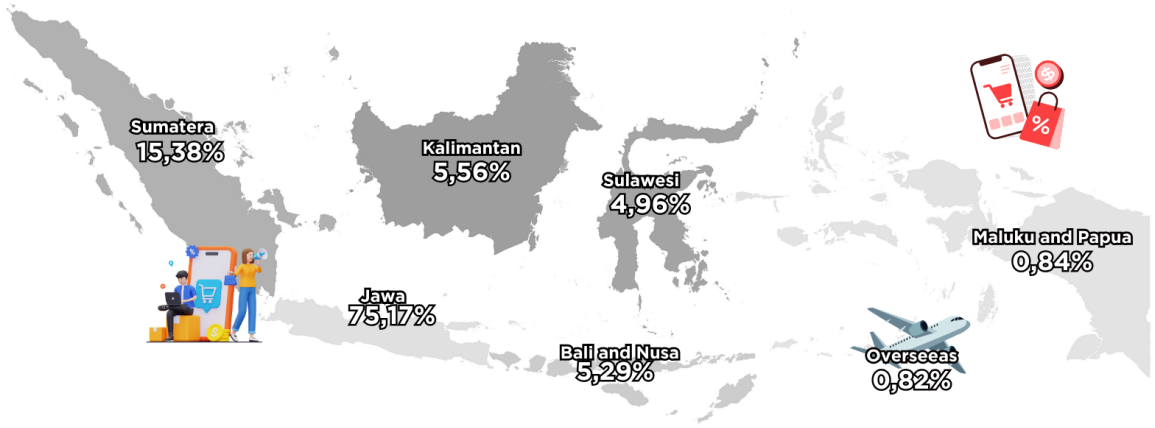


- By the end of 2023, **41.51 percent of businesses in Indonesia had switched to e-commerce, indicating a growing trend of digitalization.**
- The number of e-commerce businesses increased by 27.40 percent from the previous year, reaching 3.8 million business units.
- The value of e-commerce transactions in 2023 reached IDR 1,100.87 trillion, an increase of 40 percent compared to 2022.
- Food/beverage products dominate e-commerce transactions with a share of 43 percent of total sales.
- As many as 75.04 percent of e-commerce businesses are concentrated on the island of Java, with West Java as the highest province.

Figure 1.83 Distribution of e-commerce businesses (2023)
Source: STATISTICS INDONESIA, 2024

The region where *e-commerce* business products are shipped is also dominated by Java, with 75.17% of shipments recorded in this region. In contrast, Maluku and Papua recorded the lowest proportion of shipments within the country, at only 0.84%. In addition, the proportion of *e-commerce* businesses that serve overseas shipments is still very small, at 0.82%.

In terms of payment methods, the majority of e-commerce businesses in Indonesia in 2023 still rely on cash payments, including the *Cash on Delivery* (COD) method, with a proportion of 75.19 %. Payment methods via bank transfer (ATM, internet banking, mobile banking) are used by 17.44 % of businesses. Meanwhile, payments through e-wallets, such as GoPay, OVO, and DANA, were used by 5.91 % of businesses. The use of QRIS was recorded at 1.02 %, and payment methods using cards (debit, credit, electronic money cards) were recorded as the least used, at only 0.43 %.



- Java Island dominates the e-commerce product delivery area with a proportion of 75.17 percent.
- The Maluku and Papua regions recorded the lowest proportion of domestic e-commerce deliveries, only 0.84 percent.
- **The disparity in delivery distribution reflects the concentration of logistics and infrastructure in the western region of Indonesia.**
- The proportion of e-commerce businesses that serve overseas deliveries is still very small, at only 0.82 percent.
- The low e-commerce exports indicate untapped potential in expanding the global market by local business actors.

Figure 1.84 Percentage of e-commerce businesses by delivery region (2023)
Source: STATISTICS INDONESIA, 2024

The history of MSME digitisation efforts began in 2017 with the launch of the MSME Go Online programme by the Ministry of Communication and Information, which was later strengthened by the Proudly Made in Indonesia Movement or *Gerakan Nasional Bangga Buatan Indonesia* (Gernas BBI) programme in 2020, especially during the COVID-19 pandemic that forced MSMEs to adapt to the digital realm. Notable milestones include the integration of MSMEs into major digital platforms such as Tokopedia, Shopee, and Bukalapak in 2018; digitalisation training by the Ministry of Cooperatives and SMEs; and partnerships with payment and logistics platforms. The government also encourages the registration of Business Identification Numbers (NIBs) through the OSS system and the provision of incentives such as postage subsidies and e-commerce training. All of this aims to make MSMEs not only digitally active but also legally registered, so that they can access financing, legal protection, and export opportunities.

In order to strengthen the role of MSMEs, the government has issued Government Regulation Number 7 of 2021 on the Facilitation, Protection, and Empowerment of Cooperatives and MSMEs. This Government Regulation updates several provisions in Law No. 20/2008 on MSMEs, particularly related to business classification criteria based on annual sales. Based on the survey results, e-commerce businesses in Indonesia are dominated by MSMEs, which

account for 99.93% of the total e-commerce businesses, while large businesses account for only 0.07%.

The above data indicates that, despite the rapid growth of e-commerce, there are still geographical disparities in the utilisation and reach of digital services. Therefore, a more inclusive national strategy is needed to expand access, improve digital capacity, and strengthen the competitiveness of small and medium enterprises in all regions of Indonesia, in order to promote more equitable and sustainable economic growth. Challenges remain in equalising digital access, diversifying payment methods, and empowering MSMEs to adapt to the dynamic digital economy ecosystem. Continued support from the government, private sector and the community is key to ensuring inclusive and sustainable digital transformation across Indonesia.

1.2.1.4 Promote an enabling, fair and responsible environment for business and innovation

The New Urban Agenda calls for the development of dynamic, sustainable and inclusive urban economies, resource-efficient and resilient infrastructure, the promotion of sustainable and inclusive industrial development and sustainable consumption and production patterns, and the fostering of an environment conducive to business and innovation, and livelihoods (NUA §45). Governments should encourage fair competition, which leads to improved quality of goods and services, lower costs, and open access for new businesses. In this way, cities can become centres of innovation and sustainable economic growth.

Number of Days to Register a New Business, Ease of Starting a Business and Licensing Reform in Indonesia

The time taken to start a business is an important indicator in assessing the quality of a country's regulatory environment. An efficient, transparent, and fair licensing process is a key prerequisite for creating a healthy and innovative business ecosystem. Legal certainty in licensing provides clarity for businesses in planning investments, and reduces risks caused by regulatory uncertainty.

The Indonesian government responded to these challenges through the issuance of Law Number 11 of 2020 on Job Creation. The Job Creation Law itself covers 11 broad policy clusters, including licensing simplification, investment requirements, worker protection, ease of doing business for MSMEs, land acquisition, and support for innovation. The law aims to create an inclusive business environment and encourage the growth of MSMEs, which employ 84.13 million workers or around 59.17% of Indonesia's total labour force.

This law brings significant changes to the business licensing system by encouraging simplification and integration of processes through the Online Single Submission (OSS) system. OSS has become the main platform in managing various business licences, which were previously spread across various agencies with complicated procedures and long time. This reform aims to reduce the burden of bureaucracy and administrative costs, thereby accelerating the process of starting a business.

Through a risk-based approach known as OSS-RBA (Risk-Based Approach), permit processing time is adjusted to the risk level of the business activity. Low-risk businesses can now obtain a Business Identification Number (NIB) in just 1 hour to 1 day. In contrast, medium to high-risk businesses require additional documents, such as standard certificates or technical licences, which can take between 7 to 14 working days. As of the first quarter of 2025, 12.27 million NIBs have been issued through OSS, of which around 99% are for Micro, Small and Medium Enterprises (MSMEs), reflecting the large role of MSMEs in the national economy.

OSS implementation is also supported by local government initiatives. Several regions, such as Kediri City and Jeneponto Regency, have digitalised licensing and intensified the socialisation of risk-based policies. This step is important in improving the quality of public services and strengthening a competitive investment climate at the local level.

For business entities established with foreign capital, Indonesia provides the Foreign Investment Limited Liability Company (PT PMA) scheme. The establishment of a PT PMA is done through a staged process, including the preparation of documents, submission of the principle permit to the Investment Coordinating Board (BKPM), ratification of the deed of establishment by the Ministry of Law and Human Rights, and processing of the NIB and operational licence through the OSS. While this process can take between 60 to 180 days, the OSS helps simplify some of the administrative steps.

To accelerate the legalisation of business entities, the Ministry of Law and Human Rights developed the General Legal Administration (AHU) Online platform. Through this online system, processes such as validation of company establishment deeds, registration of legal entities, and other legal services can be accessed quickly and efficiently. AHU Online reflects the government's commitment to digitalising legal services and cutting bureaucratic barriers.

In addition, the OSS system has now been integrated with the Spatial Plan (RTR) through the application of the Conformity of Space Utilisation Activities (KKPR). As of February 2025, 330 Detailed Spatial Plans (RDTR) have been included in the OSS system. For business activities located in areas with integrated RDTR, the KKPR Confirmation mechanism automatically provides additional convenience in the licensing process.

On the other hand, Indonesia also sees great opportunities in the development of the digital economy as part of a long-term strategy to improve competitiveness. This was realised through the launch of the White Paper on the National Strategy for Indonesia's Digital Economy Development 2023-2030. This strategic document sets out six main pillars, namely digital infrastructure development, improving the quality of digital human resources, strengthening cybersecurity, supporting innovation and research, financing, and forming adaptive policies. With this strategy, the government targets the digital economy's contribution to Gross Domestic Product (GDP) to reach 20 % by 2045 as well as an increase in Indonesia's digital competitiveness ranking from 51st place (2022) to 20th place.

Overall, Indonesia has made strategic strides in creating a favourable regulatory environment for businesses. Through a combination of licensing reforms, digitalisation of services, and encouragement of new economic sectors such as the digital economy, the government seeks to establish a strong foundation for inclusive, sustainable, and globally competitive economic growth.

1.2.2 Urban Prosperity and Productivity

1.2.2.1 Support urban economic diversification and promote cultural and creative industries

Indonesia's cultural and creative industries have proven their role as one of the main pillars of sustainable and inclusive urban economic growth. Based on projections by the Ministry of Tourism and Creative Economy, by 2024 this sector is targeted to be able to absorb 24.7 million workers, a significant increase from 19.2 million workers in 2019. This achievement is supported by the growth of the value added of the creative economy which is estimated to reach Rp1,500 trillion in 2024, with export contributions targeted at USD30 billion.

The development of the creative industry until 2024 shows a very positive trend. The added value of the creative economy has also shown steady growth, with achievements in the first

quarter of 2024 exceeding Rp400 trillion. Meanwhile, the export value of creative products in recent years has continued to show a consistent increase, proving the competitiveness of Indonesian creative products in the global market.

Figure 1.85 Creative economy value added, exports and employment (2024)
Source: Kemenparekraf, 2024

Indonesia's creative economy sector continues to prove its resilience as one of the country's foreign exchange supporters. By 2024, the export value of creative products is projected to reach USD 27.53 M. Indonesia's creative product export market is still dominated by the United States (38%), followed by the European Union (22%) and Japan (12%). However, there are positive developments in market diversification, especially to the Middle East and Africa regions, which recorded growth of 40% and 15% respectively by 2024. In terms of production, West Java remains the main contributor with a 32% share, while Bali recorded the highest export growth (25%) due to its culture-based handicraft and creative products.

However, the main challenge still lies in developing the digital creative ecosystem. Exports of digital subsectors such as animation, music, and games only account for 0.06% of the total value of creative economy exports. This low figure is due to several factors, including the difficulty in quantifying the export value of digital creative services and the non-optimal utilisation of global platforms. To address this, Kemenparekraf has launched the "Digital Creative Hub" programme which focuses on assisting digital industry players to go international.

The government targets the value of creative economy exports to reach USD 30 billion by 2025 through three main strategies, namely Strengthening the supply chain through the development of creative logistics centres in five major industrial cities; "*Go Global Creative Small Medium-Size Enterprises*" programme that provides access to financing and export training for MSME creative businesses; Optimisation of digital platforms to expand the market reach of Indonesian creative products With these strategic steps, Indonesia's creative economy is not only expected to increase its contribution to the country's foreign exchange, but also create more inclusive and sustainable employment in various regions.

Government Regulation 24 of 2022 regarding the Implementation Regulation of Law Number 24 of 2019 on Creative Economy allows creative economy actors to get access to financing with intellectual property (IP) as collateral, as the majority of them do not have physical assets as loan collateral. IP is considered as the heart of creative economy[5] , and protection of IP is

[5] Intellectual property (IP) has a very close relationship with the creative economy (ecraf) sector because the works in creative economyare basically sourced from ideas, creativity, and innovation that are legally protected through the intellectual property system. In ecraf, forms of IP such as copyrights, trademarks, industrial designs,

expected to increase the added value of products and help creative industry players gain access to capital from their works. The strategic steps taken to encourage the growth of the national creative economy going forward after the enactment of the regulation in July 2023 can be seen from the 2022 data which shows that 113,532 creation records have exceeded the target of 100 thousand records. In addition, based on the World Intellectual Property Organisation (WIPO) 2022 annual report, Indonesia's trademark applications ranked second with 127,142 applications.

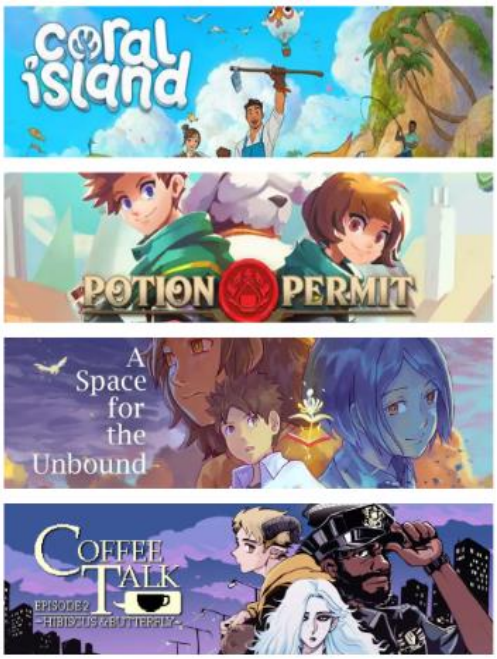


Figure 1.86 Mobile games made in Indonesia
Source: Kemenparekraf, 2024

Along with the development of IP support, the growth of the games sector in Indonesia is moving positively. This can be seen from several local Indonesian games that managed to achieve good revenue by 2023. Some local games made in Indonesia such as Coral Island, Potion Permit, A Space For Unbound, Coffee Talk Episode 2: Hibiscus & Butterfly managed to sell 30 thousand to 150 thousand copies with average gross revenue above USD 400 thousand to 3.2 million. Mobile gaming is the dominant platform in Indonesia, and is expected to continue to increase in popularity due to the high penetration of smartphones in the country - 353.8 million or around 128% of the total population. Indonesia is the third largest mobile gaming market based on Google Play downloads, with the resulting spending of Indonesian mobile gaming users through in-app purchases (IAP) reaching USD 0.37 billion (around Rp5.6 trillion), an increase of 15.6% from 2022 - in line with the total mobile game downloads that continue to increase every year.

Employment in Cultural and Creative Industries as a Proportion of Total Employment

Based on the results of Sakernas in 2018-2022, the number of creative economy workers tends to increase with an average growth of 6.33 % per year. The share of the creative economy workforce in 2022 was 17.73 %, which means that out of 100 workers there were around 18 people working in the creative economy sector. Of the fourteen creative economy

and patents are the main assets that determine the economic value of a creative product or service. Especially in the games industry, intellectual property protection is very important because games include audio-visual works, software, characters, storylines, music, and graphic displays, all of which are objects of copyright or design. Without IP protection, game industry players are vulnerable to piracy and unauthorised exploitation, which can be financially detrimental and hinder growth.

subsectors, the culinary subsector absorbs the most labour at 56.02%. Meanwhile, the design subsector absorbs the least labour at 0.16 %. Based on age characteristics, 38.49 % of the creative economy workforce is aged 25-40 years, around 35.19 % is aged 41-59 years, 17.21% is aged 15-24 years, and around 9.10% is aged 60 years and over. The majority of the creative economy workforce is the millennial generation at 38.51%, followed by generation X at 31.02%, generation Z at 18.77%, the Baby Boomer generation at 11.05%, and the Pre-Boomer generation at 0.65%. Meanwhile, when viewed by education level, the creative economy workforce has the most low education (junior high school and below) with a proportion of 53.24%, secondary education (high school equivalent) of 39.09%, and those with higher education (diploma and above) of 7.67%. Although the percentage is the smallest, the percentage of the creative economy workforce with higher education continued to increase during the 2018-2022 period.

Figure 1.87 Tourism and creative economy labour force (2022)
Source: STATISTICS INDONESIA 2024

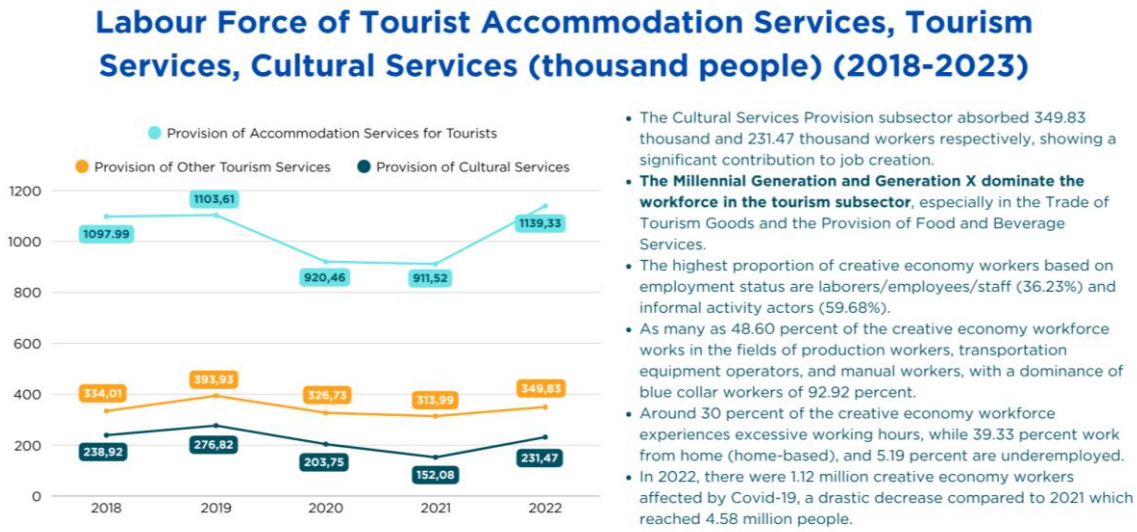


Figure 1.88 Labour force of tourist accommodation services, tourism services, cultural services (thousand people) (2018-2023)
Source: STATISTICS INDONESIA, 2024

Labour in the provision of cultural services is able to absorb 349.83 thousand workers and 231.47 thousand workers respectively. Provision of Cultural Services is able to absorb 349.83 thousand workers and 231.47 thousand workers respectively. Meanwhile, when reviewed by tourism subsector and generation category, it shows that in general it is dominated by the

Millennial Generation and Generation X. As an illustration, the largest percentage of the workforce in the Tourism Goods Trade Subsector is the Millennial Generation both in 2021 (34.50 %) and 2022 (32.39 %). Meanwhile, the smallest percentage of the workforce in the Tourism Goods Trade subsector is in the Baby Boomer and Pre Boomer Generations, namely 15.21 % in 2021 and 17.31 % in 2022. Generation X dominates the workforce in the Food and Beverage Service Provision subsector in 2021 with a percentage of 35.74 %. In 2022, this subsector is dominated by the Millennial Generation at 35.28 %. The smallest percentage is found in the Baby Boomer and Pre Boomer Generations which decreased from 13.83 % in 2021 to 12.84 % in 2022.

Based on employment status, most creative economy workers are labourers/employees/employees at 36.23 %, and work in informal activities at 59.68%. Based on the type of work, the creative economy workforce mostly worked as production workers, transport operators and manual workers at 48.60 %, and in the blue collar category at 92.92 %. Creative economy workers who work more than 48 hours a week (excessive hours) amounted to 29.53 %. This means that about 30 out of 100 workers in the creative economy sector work excessive hours. The creative economy workforce that includes *home-based workers* is 39.33 %. Meanwhile, the creative economy workforce that is underemployed is 5.19 %. This means that out of 100 creative economy workers there are around five people who work less than normal working hours (usually <35 hours per week), not because they want to, but forced by condition of no more job opportunities. In 2022, the creative economy workforce affected by Covid-19 was 1.12 million people, consisting of temporarily not working due to Covid-19 as many as 42 thousand people and creative economy workers who experienced a reduction in working hours due to Covid-19 as many as 1.08 million people. Compared to 2021, the number of creative economy workers affected by Covid-19 has decreased by 3.46 million people.

Manufacturing Employment as a Proportion of Total Employment

Manufacturing employment as a proportion of total employment has a complementary relationship with employment in the creative industries, especially in the context of economic transformation and value-added creation. On the one hand, the traditional manufacturing sector absorbs large-scale labour in the mass production of goods, such as textiles, furniture, food and beverages, and electronics. However, as the creative industry develops, many processes in manufacturing now involve creative roles, such as product design, *branding*, packaging, and visual marketing-which are part of the creative economy. For example, in the fashion or craft industry, creative labour designs products, while manufacturing labour produces them on a large scale. Thus, while the proportion of manufacturing jobs stagnates or declines due to automation or efficiency, jobs in creative industries may increase in response to demand for value-added, innovation and product differentiation. This represents a shift from an economy based on mass production to one based on ideas and creativity, where creative jobs are the drivers of innovation in the manufacturing chain.

Overall, the proportion of labour in the manufacturing industry sector in Indonesia decreased by 0.34% from 2022 (14.17%) to 2024 (13.83%). This decrease indicates a change in the labour structure of the manufacturing sector in general, the manufacturing sector may become less labour-intensive than before. There is a shift in the proportion of labour in various sub-sectors of the manufacturing industry. Most sectors experienced a decrease in the proportion of labour, possibly due to factors such as increased automation, changes in market demand, or industrial restructuring. However, some sectors such as the food, tobacco processing, pharmaceutical, and other processing industries showed an increase or stability in employment. Industries with an increase in the proportion of labour occurred in the primary and basic processing sector, the health sector, while other processing industries such as: repair and installation services of machinery and equipment showed stability. Industries with a decrease in the proportion of labour occurred in the textile and textile products sector, wood

and furniture sector, printing and media sector, energy and basic chemicals sector, rubber and plastics sector, materials and metals sector, electronics and equipment sector.

1.2.2.2 Develop technical and entrepreneurial skills to thrive in a modern urban economy

Number of individuals trained in vocational and technical education on an annual basis

Indonesia is committed to increasing economic productivity, as appropriate, by providing the labour force with access to earning opportunities, knowledge, skills and educational facilities that contribute to an innovative and competitive urban economy (NUA §56). A thriving modern urban economy requires an adequate supply of technical and entrepreneurial skills. However, many countries are more focused on producing university graduates. As a result, many youth do not receive vocational training. The benefits of vocational education and training (VET) depend on the demand for such skills in a country. In many developing countries, some workers trained in vocational colleges enter into paid employment, and others become productive self-employed, as many economies cannot generate enough jobs in the formal sector.

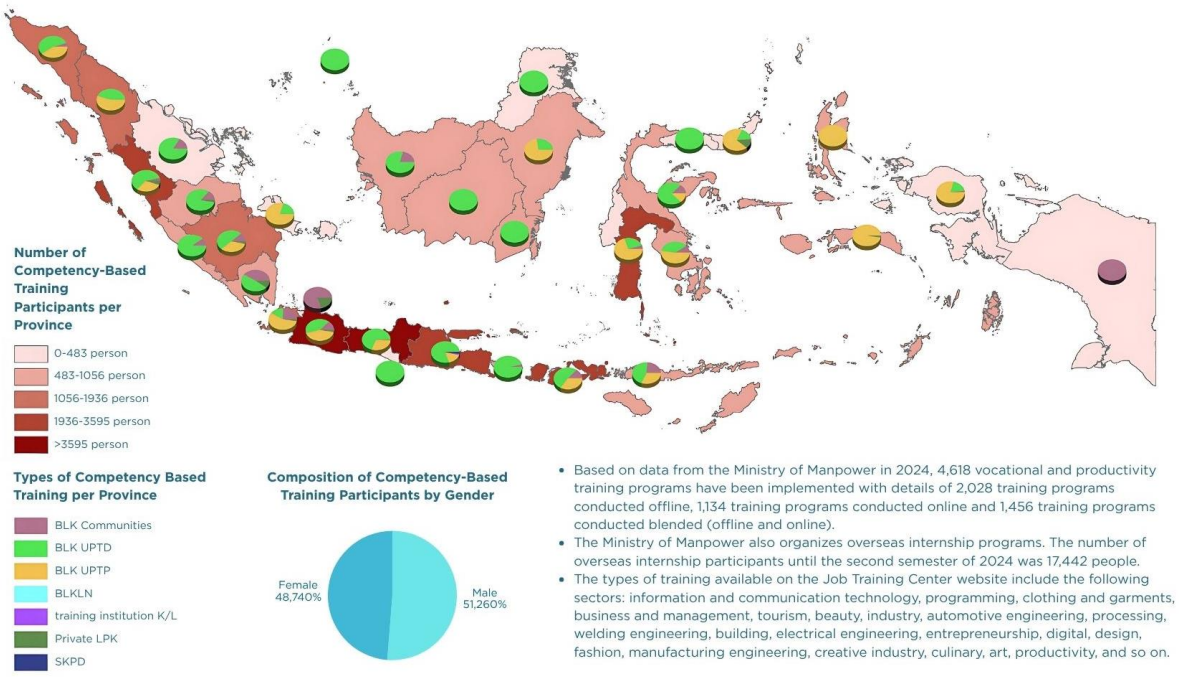


Figure 1.89 Number of Competency-Based Training Participants by Province and Gender

The Ministry of Manpower's Job Training Centres (BLK) provide offline-based training and online services supported by 5,543 credible training institution partners and experienced instructors, including Universities, Educational Institutions, Research Institutions, Local Governments, Private Sectors, NGOs, SOEs, and others. The purpose of this training is to provide free training to improve the skills and capacity of working-age people, especially youth, provide training certificates and competency tests from the National Professional Certification Agency (BNSP) for trainees, facilitate trainees to connect directly with career centres and recruiters to get more career/job opportunities, and accelerate the reduction of unemployment and expand employment opportunities.

Based on data from the Ministry of Manpower in 2024, 4,618 vocational and productivity training programmes have been implemented with details of 2,028 training programmes

conducted offline, 1,134 training programmes conducted online and 1,456 training programmes conducted *blended* (offline and online). The Ministry of Manpower also organises overseas apprenticeship programmes. The number of overseas apprenticeship participants as of the second semester of 2024 is 17,442 people. The types of training available on the Balai Latihan Kerja website cover the following sectors: information and communication technology, programming, clothing and garment, business and management, tourism, beauty, industry, automotive engineering, processing, welding engineering, building, electrical engineering, entrepreneurship, digital, design, fashion, manufacturing engineering, creative industry, culinary, art, productivity, and so on.

In addition to vocational training, technical and entrepreneurial skills to thrive in a modern urban economy also need to be supported with skills in the use of Information and Communication Technology (ICT). The proportion of youth and adults aged 15-24 with ICT skills in Indonesia increased from 2021 to 2023. In 2021, the national proportion was 91.83%, increasing to 93.21% in 2022, and reaching 94.31% in 2023. This increase shows that ICT skills among Indonesia's youth are improving. However, there are variations between provinces. For example, in 2023, Special Region Yogyakarta Province has the highest proportion of ICT skills at 98.95%, followed by East Kalimantan with 98.45%, and Central Java with 97.88%. In contrast, Papua Province has the lowest proportion with 36.81% in the same year. This increase shows that ICT skills among Indonesia's younger generation are improving.

One way to develop other skills is through formal education, particularly higher education. The Gross Enrolment Rate (APK) in higher education in Indonesia has increased to 121.96 in 2024 from 115.26 in 2021, signalling a significant improvement. However, the APK for the population living in urban areas lags behind that of rural areas. This could mean that while access to education is generally easier in urban areas, men tend to have stronger access and incentives to pursue higher education due to the expectation of being the primary breadwinner and the wider range of formal employment opportunities that require a university degree. Meanwhile, women in urban areas often face social pressures or double burdens, such as domestic responsibilities, cultural norms, or early marriage that limit their continuation of education. In contrast, in rural areas, government affirmative programmes and shifting parental views on the importance of education for girls have led to an increase in female APKs, even surpassing males in some cases. In addition, non-formal employment opportunities in villages that do not require higher education make men enter the workforce faster, resulting in their APK being relatively lower than that of women.

Table 1. 2 Ratio of Female/Male Gross Enrolment Rate (APK) at Higher Education Level by Village Classification, 2024

Village Classification	Ratio of Female/Male Gross Participation Rate (APK) in Higher Education by Village Classification			
	2021	2022	2023	2024
Urban	113,66	115,15	113,83	120,20
Rural	123,12	116,96	120,77	125,44
Urban + Rural	115,26	116,04	116,31	121,96

Source: STATISTICS INDONESIA, 2024

1.2.2.3 Strengthen urban-rural linkages to maximise productivity

The National Urban Policy (KPN) 2045 is the long-term strategic direction of Indonesia's urban development as set out in the National Urban Development Policy and Strategy (KSPPN) 2015-2045 and integrated into the National Medium-Term Development Plan (RPJMN)

document. KPN 2045 was developed to support the achievement of the Indonesia Emas Vision 2045, by placing urban development as the main driver of social, economic, and environmental transformation towards more competitive, inclusive, and sustainable cities. This policy aims to formulate an integrated and adaptive strategy in facing the challenges of urbanisation and regional development in the future, in line with Indonesia's commitment to the New Urban Agenda and the Sustainable Development Goals (SDGs).

In detail, KPN 2045 covers a number of important aspects. Firstly, the formulation of an agenda for meeting the infrastructure needs of urban settlements based on regional characteristics and the new "Smart Agenda 2045" standard. Second, the development of a National Strategy for Urban Development (SNPP) for the next two decades as the basis for infrastructure and spatial planning of residential areas. Third, the formulation of a national system of cities policy based on the National Spatial Plan (RTRWN), which aims to realise connectivity and balance between regions. Fourth, the establishment of a national strategy for the development of cities based on long-term policy scenarios that refer to global standards and practices. Fifth, the establishment of Norms, Standards, Procedures, and Criteria (NSPK) for residential services that are aligned with global principles, such as universal access, sustainability, and resilience to climate change. It also sets out a strategic framework for implementation, covering infrastructure, institutional support and innovative financing, including through public-private partnerships and green finance.

To realise the ideal cities of the future, KPN 2045 is built on five key policy pillars: (1) a balanced, inclusive, and spatially equitable national urban system; (2) livable, inclusive, and cultured cities that ensure the quality of life of its citizens; (3) economically advanced and prosperous cities; (4) green cities that are resilient to disaster risk and climate change; and (5) transparent, accountable, and participatory urban governance. With this policy, Indonesia aims to achieve cities that are centres of growth, innovation and prosperity in a global context by 2045.

In addition, KPN 2045 also formulates Key Performance Indicators (KPIs) both qualitatively and quantitatively, to measure the achievement of urban development periodically and accountably. Quantitatively, the Index of Sustainable Cities (IKB) is a periodic, standardised, user-friendly and affordable tool for monitoring and evaluating urban development. The Index consists of 27 indicators that fulfil the five missions of the KPN. The IKB is an evaluation tool developed by the Ministry of National Development Planning/Bappenas to assess and monitor the performance of Indonesian cities in achieving sustainable development. It integrates the three main pillars of sustainable development-economic, social, and environmental-and adds aspects of urban governance and urban service systems. The index is designed to provide a comprehensive picture of the condition and development of cities, and to inform the formulation of national urban policies.

In its implementation, the IKB classifies Indonesian cities based on typologies, such as metropolitan, large, medium, and small cities, with assessments on six main aspects: urban service systems, socio-cultural, economic, environmental, urban governance, and national urban systems. For example, the 2011 data shows that metropolitan cities have the highest average score of 56.64, while small cities have the lowest average score of 44.27. This reflects the disparity in the achievement of sustainable development between cities in Indonesia.

The IKB serves not only as an evaluation tool, but also as an instrument to drive improvements in development policies and practices at the city level. The index enables national and local governments to identify areas of concern and design appropriate interventions to improve the quality of life and sustainability of urban environments. The IKB also supports the achievement of the Sustainable Development Goals at the local level, particularly Goal 11 which focuses on inclusive, safe, resilient and sustainable cities and settlements.

One of the most recent efforts that the Indonesian government has made in the urban sector can be seen in the recent enactment of Government Regulation No. 59 Year 2022 on Urbanisation. This government regulation has several objectives, including: 1) standardisation of urban service facilities, 2) synchronisation of urban management between city/regency, provincial, and national governments, and 3) optimisation of urban resources by local governments. In addition, it also redefines various forms of urban areas based on the classification of area, pattern of formation, and dominant economic function. It is also worth noting that article 10 point 2 of the regulation specifically recognises the typology of 'metropolitan' and 'megapolitan' cities, and encourages the provision of an Urban Management Implementation Plan (RP2P), which integrates urban service delivery plans, with indicative funding strategies, to address some of the challenges faced by local governments related to urban infrastructure development, such as: the mismatch of development, procurement and budget cycles, and the lack of local independence in creating funding opportunities to finance the development of infrastructure and other urban service facilities. As a document that consolidates the urban service delivery plans of ministries/agencies, regional apparatus, and legal entities, the RP2P is part of the RPJMD and integrated with the RTRW.

The Government of Indonesia has also implemented the National Urban Development Project (NUDP) as a form of concrete commitment to realise the vision of future urban development based on the principles of the NUA, which was presented by the Indonesian Ambassador to UN Habitat in front of representatives of world countries at the 26th Session of the Governing Council of the UN Human Settlement Programme (Habitat) in Nairobi, Kenya in May 2017.

Through NUDP activities, the importance of creating positive changes in urban management through a series of activities and initiatives that support sustainable, inclusive and smart urban development is emphasised, starting with the preparation and development of the National Urban Development Strategy (NUDS-2045). Furthermore, the national urban strategy is implemented at the city level through an Integrated City Planning (ICP) instrument. The ICP is prepared and developed based on the prevailing system, new urban norms and standards (NSPM) and mutually agreed measures of success (KPIs) to fulfil the socio-economic character targets of the city's residential areas in accordance with the carrying capacity of the environment.

The NUDP project is divided into three main components including: 1) The development of national urban institutions and policies, including: a) Development of the National Urban Development Strategic Coordination Team (TKSPN); b) Preparation of the National Urban Policy (KPN); and c) Preparation of the NUDS; 2) An integrated urban planning and capital investment programming approach, comprising: a) Integrated City Planning (ICP); b) preparation of medium-term urban development investment plans, and c) Capital Investment Planning (CIP); 3) Development of financial management capacity, consisting of; a) municipal financial capacity and project management; and b) capacity building for access to alternative sources of financing.

The formulation of Indonesia’s 2045 national urban scenario under the NUDS considers a wide range of regional characteristics that act as both drivers and constraints for future urban development. As the largest archipelagic country in the world, with more than 17,000 islands, Indonesia faces diverse geographical, environmental, socio-cultural, and economic conditions across its territories. These variations exist not only between islands but also between urban and rural areas, requiring a nuanced approach to long-term urban planning. One of the primary considerations is Indonesia’s archipelagic nature, where about 62% of the country's area is comprised of seas and water bodies, leaving only 38% as land. This creates limitations in the spatial availability for urban expansion and development. Additionally, the country’s diverse bioregions—characterized by differences in climate, soil, flora, fauna, and ecosystems—necessitate localized development strategies that are environmentally sustainable and suitable for specific regional conditions.

Another significant factor is Indonesia's high vulnerability to natural and hydrometeorological disasters, such as earthquakes, floods, and landslides. These risks are spread across the nation and pose ongoing challenges to urban safety and resilience, making disaster preparedness and adaptive infrastructure essential components of urban planning. Indonesia's urban development must also align with the unique economic strengths of its regions. Various cities have competitive advantages in sectors such as trade and services, manufacturing, agriculture, plantations, mining, fisheries, and marine industries. Harnessing these local economic potentials can help drive balanced regional development and reduce urban-rural disparities. Furthermore, Indonesia's strategic maritime position—located between two oceans and two continents—offers cities vast potential in natural resources and global connectivity. This enhances their role in international trade and underscores the importance of developing port cities and maritime infrastructure as part of a globally connected urban system.

The development of the new capital city (IKN) in East Kalimantan is another key element influencing the future urban structure. It is expected to serve as a catalyst for growth in the province, Eastern Indonesia, and even at the national level, promoting a more balanced and sustainable urban network across the archipelago. Lastly, political and security considerations are integral to the urban scenario, especially for cities located in border regions—both terrestrial and maritime. These cities are strategically important for maintaining national sovereignty and territorial integrity and thus require urban development that also reinforces defence and state presence. By integrating these diverse factors, the 2045 urban vision aims to create a resilient, inclusive, and sustainable urban system that reflects the unique complexity of Indonesia's geography and development challenges.

Based on the concept and approach of the NUDS and considering the characteristics of the region that can become supporting and inhibiting factors in national urban development, the NUDS will develop three alternative scenarios as follows: 1) Develop cities as usual without regard to their size, role and hierarchy within the national territory (business as usual); 2) Scenario 2: Encourage the growth of cities by taking into account their size, role and hierarchy within the national region, including the development of IKN as new centres of economic growth; 3) Scenario 3: Limiting the growth of cities due to various regional characteristics and unbreakable constraints (Ministry of Public Works, 2023).

Policies in Indonesia's National Long-Term Development Plan (RPJPN) 2025-2045 set the strategic direction for the development of cities, including metropolitan cities, as part of the grand vision of a Indonesia Emas 2045. Metropolitan cities play an important role as drivers of national economic growth and centres of innovation, logistics, and regional connectivity. Indonesia has designated 10 Metropolitan Cities as national priorities: Jabodetabekpunjur (Jakarta-Bogor-Depok-Tangerang-Bekasi-Puncak-Cianjur), Bandung Raya (Bandung, Cimahi, and surrounding areas), Semarang Raya (Semarang and surrounding areas), Surabaya Raya / Gerbangkertosusila, Medan Raya / Mebidangro (Medan-Binjai-Deli Serdang-Karo), Makassar Raya / Mamminasata, Palembang Raya, Denpasar-Badung-Gianyar-Tabanan (Sarbagita), Banjarmasin Raya / Banjarbakula, Manado Raya / Bitung-Minahasa.

Figure 1.90 Distribution of metropolitan cities

The development of the National Strategic Area (KSN) of Mebidangro Urban Area (Medan, Binjai, Deli Serdang, Karo) is part of the policy implementation to create an enabling, fair, and responsible environment for business growth and innovation. This effort is realised through several key strategies, such as improving infrastructure and connectivity through the development of an integrated transport network-land, sea, and air-to facilitate the distribution of goods and population mobility, as well as strengthening a modern and environmentally friendly public transport system. In addition, strengthening digital infrastructure is done by expanding access to fast and stable internet to support the digital business ecosystem and technological innovation. Support is also given to investment in strategic sectors such as the manufacturing industry, tourism, and the creative economy through the provision of fiscal incentives and ease of licensing to attract more investors to the region.

In addition to the development of new metropolitan areas, other cities in Indonesia have also made efforts to integrate activities with cities and villages to maximise productivity. Surabaya City has demonstrated its commitment to the development of industrial and trading areas by implementing a flexible and responsive zoning system. The Surabaya municipality not only facilitates the licensing process for businesses but also provides various incentives and infrastructure support. In addition, Surabaya is actively developing cluster-based areas, especially for the creative industry sector, which is one of the mainstays of its economic growth. Meanwhile, West Java Province, especially the Greater Bandung area, focuses on developing technology and innovation-based industrial estates. The provincial government provides incentives for companies investing in strategic sectors such as information technology and manufacturing. Industrial estates in Karawang and Bekasi also continue to be developed, becoming significant centres of economic growth in West Java.

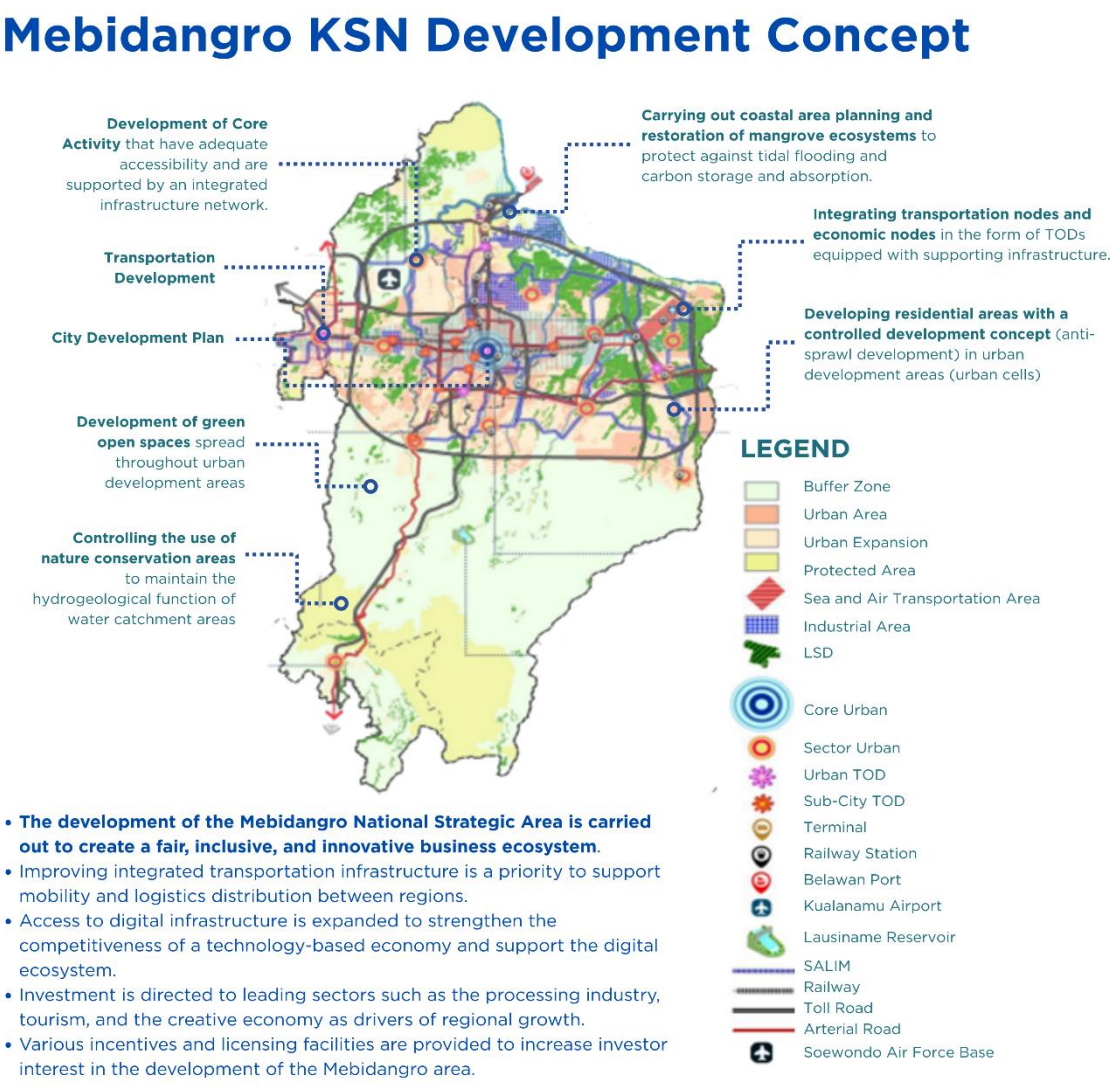


Figure 1.91 Mebidangro KSN development concept
Source: MoPWH, 2024

Outside Surabaya and West Java, other cities are also making progress in developing industrial estates. Semarang City, for example, is developing an industrial estate in the Ungaran area and its surroundings, with a focus on the manufacturing and logistics sectors. Meanwhile, Makassar City in South Sulawesi has begun to develop maritime and agriculture-based industrial estates, in line with the potential of natural resources in the region. With various policies and incentives, these cities are not only creating an enabling environment for businesses, but also realising the principles of fairness and responsibility in economic development.

1.3 Environmentally Resilient and Sustainable Urban Development

1.3.1 Resilience, Mitigation, and Adaptation of Cities and Settlements

1.3.1.1 Minimise urban sprawl and biodiversity loss

Increasing urbanisation in Indonesia poses major challenges to environmental sustainability, particularly in the form of *urban sprawl*. Physical expansion of urban areas that outpaces population growth can lead to massive land conversion, loss of natural ecosystems, degradation of environmental quality, and habitat fragmentation that threatens biodiversity. This phenomenon often occurs due to weak spatial utilisation control, limited governance in the *urban fringe*, and lack of integration between population growth and land use plans.

According to STATISTICS INDONESIA (2020), the percentage of people living in urban areas in Indonesia will continue to increase from 2010 to 2035. This increase in population drives urban expansion, which is the physical expansion of urban areas that is often accompanied by changes in land use change into *built-up areas*. This expansion brings great challenges to maintaining productive agricultural land, biodiversity conservation and ecosystem productivity.

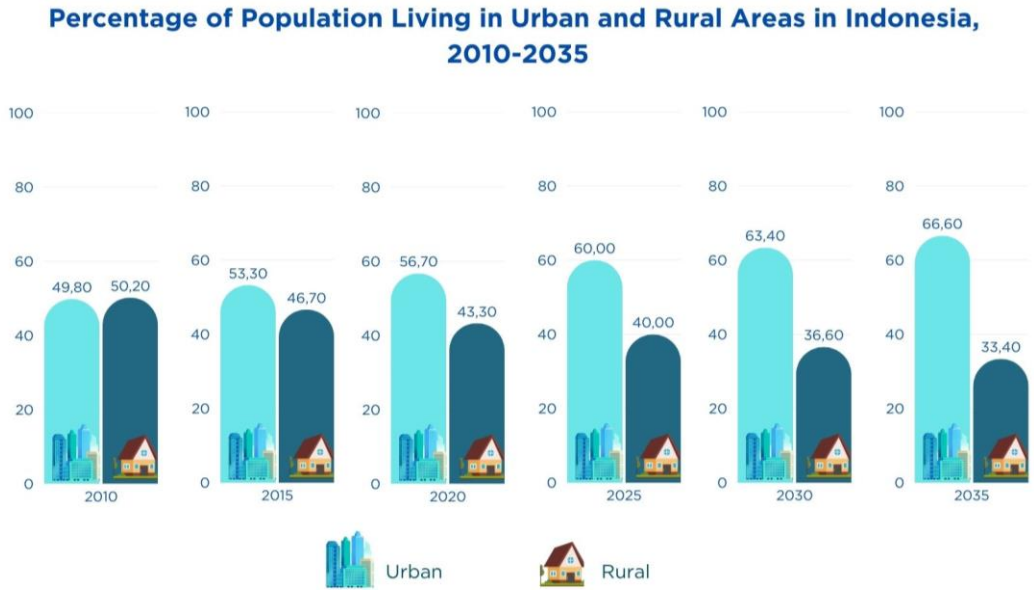


Figure 1.92 Percentage of Population Living in Urban and Rural Areas in Indonesia, 2010-2035
Source: STATISTICS INDONESIA (2020)

Indonesia is committed to promoting sustainable land use, combining urban expansion with *compactness* and appropriate density to prevent and control *urban sprawl*, as well as unnecessary land conversion and loss of productive land and vulnerable and important ecosystems (NUA §69). The ratio of land consumption rate to population growth rate (LCR/PGR) is an indicator to measure urban land use efficiency and reveals the relationship between urban land consumption and population growth.

The LCR/PGR value can be interpreted as a measure of the compactness of a region's development. LCR/PGR values > 1 indicate that the rate of land consumption is faster than the rate of population growth in a period, thus signalling relatively less compact development.

A value of LCR/PGR < 1 indicates that the rate of land consumption is slower than the rate of population growth in a period, thus signalling relatively more compact development.

The main limitation of this indicator lies in the way it is interpreted. Each human settlement structure has a variety of different factors, making it difficult to generalise the meaning of the LCR/PGR ratio in relation to sustainable urbanisation. For example, while an LCR/PGR value of <1 may indicate a denser and more efficient city, analyses within the city may show high levels of congestion and poor environmental conditions, or extensive slums that contradict the principles of sustainable development. Therefore, the context of each city's development conditions is crucial in interpreting the results.

The 2021 NUA report has presented the LCR/PGR ratios for 93 administrative cities and one capital city (Jakarta) for each 5-year period, namely 2000-2005, 2005-2010, and 2010-2015. This NUA 2025 report will continue the analyses for the periods 2015-2020 and 2020-2025, and compare them with the previous periods.

In some cities, such as Samarinda in the period 2020-2025, there is a significant spike in the LCR/PGR value, indicating a very high land consumption compared to population growth. This is due to the rapid expansion of urban areas, which can be triggered by large infrastructure projects or land conversion that is not proportional to the rate of population growth.

In contrast, cities such as Yogyakarta and Bekasi show lower LCR/PGR values, indicating that land consumption is relatively controlled and in line with the population growth rate. This reflects more efficient and structured urban planning, where the increase in population is followed by a proportional increase in land consumption.

However, in some cities, such as South Tangerang in the period 2025-2025, negative LCR/PGR values are observed, indicating a decline in population over the period, despite continued land consumption. This negative value may reflect the phenomenon of depopulation, where the population is declining, but there is still land development, even though it is not followed by significant population growth. This phenomenon may indicate an imbalance between land development plans and the actual condition of slowing population growth. On the other hand, LCR/PGR values can also be negative due to negative LCR or land recultivation. Land recultivation is an effort to restore and restore the function of land that has been disturbed.

The period 2020-2025 shows the highest LCR/PGR ratio when compared to the previous three periods, indicating that the rate of expansion of built-up land far exceeds population growth. This phenomenon can be seen as a sign of significant *urban sprawl* in many cities, with land consumption not keeping pace with population increase. On the other hand, cities that have very large areas - such as sprawl cities or cities with high administrative status - tend to show high LCR/PGR ratios. This means that the rate of land change in these cities is faster than their population growth. This is likely because these cities still have a lot of vacant or undeveloped land. When the administrative status is upgraded or when a new area is divided, the local government usually encourages the development of infrastructure, settlements, and public facilities to support the development of the area. As a result, land conversion becomes faster, even though the population has not increased significantly.

Smaller and denser cities tend to show more balanced LCR/PGR ratios in some periods, indicating that urban expansion is more controlled and more in line with population growth. Meanwhile, cities established after 2000 generally show fluctuating and high LCR/PGR ratios. This could be due to rapid and unpredictable development, with drastic changes in land use following rapid population dynamics. In contrast, long-established cities show more stable LCR/PGR ratios, as their urban systems are more mature and organised, with more structured infrastructure and development policies.

In addition, small urban areas and medium urban areas[6] dominated the surge in LCR/PGR ratios, especially after 2015. This may be due to the large amount of development in relatively new or fast-growing cities, where land expansion is faster than population growth. In contrast, large urban areas, which tend to have high levels of population density, show relatively low LCR/PGR ratios. This suggests that population density growth in these areas is faster than land expansion, indicating a higher use of space efficiency in the urbanisation process.

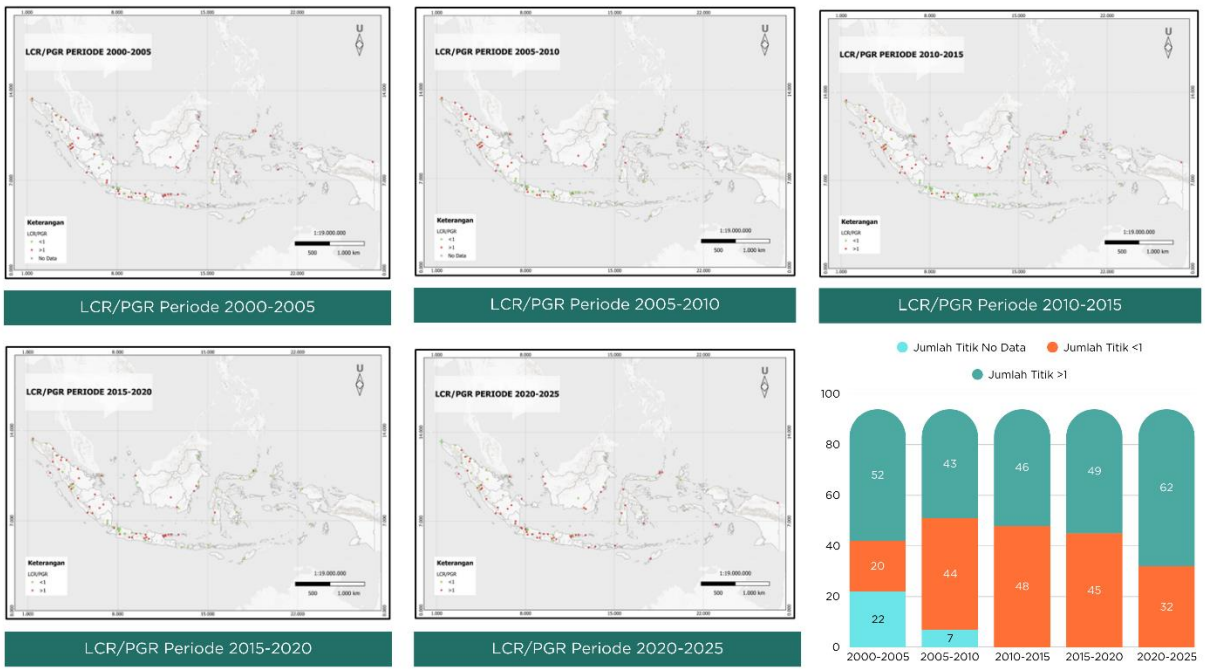


Figure 1.93 Distribution of LCR/PGR Values, 2010-2025
Source: Analysis Results (2025)

Based on the spatial analysis of the LCR/PGR ratio in Indonesia over the period 2000 to 2025, it can be seen that most cities show a ratio >1, which means that the rate of land conversion is higher than the rate of population growth. This condition is consistent in almost all periods, especially in areas with high development activity such as Java, Sumatra and Kalimantan. On the other hand, cities in Sulawesi show a mix of >1 and <1 ratios over the 2000-2025 period. Meanwhile, Papua is dominated by cities that have a ratio of <1. This may be due to the limited level of urbanisation and development. Although there was a decline in the number of cities with a ratio >1 in the 2005-2010 period, this trend increased again in the following period. On the other hand, the number of cities since the beginning of the period with a ratio of <1 did not show a significant increase and tended to stagnate.

LCR/PGR ratios of less than 1 indicate that land consumption in DKI Jakarta and Bandung City is slower than the rate of population growth, indicating relatively compact development and efficient use of space. Although both regions show efficient land use, the reality is that there are many slum areas, as seen in the slum distribution maps in DKI Jakarta and Bandung. In DKI Jakarta, although some areas are denser, many areas are trapped in poor conditions due to a lack of infrastructure and organised spatial management, leading to the emergence of slums. Similarly, the city of Bandung is experiencing the same thing

[6] Small urban areas are urban areas that are determined by the criteria of a population of more than 50,000 (fifty thousand) to 100,000 (one hundred thousand) inhabitants. Medium urban area is an urban area that is determined by the criteria of a population of more than 100,000 (one hundred thousand) to 500,000 (five hundred thousand) inhabitants (Government Regulation No. 26 Year 2008).

This shows that while an LCR/PGR ratio of <1 represents a denser and more structured city in terms of land use, other factors such as space management and provision of adequate infrastructure play an important role in realising a sustainable city. The maps of the two cities above show that slums can arise even in areas that are relatively efficient in terms of land use, demonstrating the importance of integrating spatial efficiency and environmental quality.

Based on the report Dynamics of Urban Land Consumption in Indonesia (STATISTICS INDONESIA, 2024), an analysis of 93 administrative cities and DKI Jakarta shows variations in LCR/PGR ratios over the 2000-2015 period. Cities such as Semarang, Cilegon, Makassar, Denpasar, Kupang, and Banda Aceh recorded LCR/PGR ratios below one, indicating relatively compact and efficient development. Some smaller cities such as Cimahi, Bukittinggi, and Batu also show similar patterns, indicating that although these cities are small, their land consumption is relatively efficient compared to their population growth rates. However, there are also cities with high LCR/PGR ratios, such as Manado and Banjar, which show faster land expansion compared to population growth. In certain cases, such as in Tegal city, land consumption remains higher even though population growth tends to be low, indicating dispersed development with low spatial efficiency.

Based on STATISTICS INDONESIA data, land use change in Indonesia's metropolitan areas during the 2010-2020 period according to population growth and land consumption in 10 major metropolitan areas, including Jabodetabekpunjur, Bandung Basin, Sarbagita, to Mamminasata, Jabodetabekpunjur is recorded as the area with the highest population and the largest expansion of built-up area, while areas such as Bimindo have relatively low rates of land consumption and economic concentration. Regions such as Sarbagita (Bali) show the highest proportion of its built-up area utilised for economic activities (37.43%), far greater than Bimindo (Manado) which only accounts for 6.11%. This comparison reflects how local characteristics, such as tourism and national strategic development, influence land use patterns.

Overall, metropolitan areas with high population concentrations tend to expand their built-up areas significantly, leading to challenges in land efficiency and spatial management. These results are important as a basis for urban planning policies that lead to sustainable development, as well as a measure of the effectiveness of regional planning in anticipating rapid urbanisation.

The ongoing phenomenon of *urban sprawl* in many Indonesian cities poses a challenge to achieving the goals of the New Urban Agenda, particularly in relation to inclusive, efficient and sustainable urban development. Analysis of the land consumption to population growth ratio (LCR/PGR) indicator underscores the importance of compact and controlled space management to prevent environmental degradation and biodiversity loss. The implementation of the NUA requires the integration of spatial planning policies with the protection of ecological areas as well as improved institutional capacity in managing peri-urban areas that are vulnerable to unplanned expansion. Future efforts should emphasise cross-sectoral and inter-regional planning, inclusive use of spatial data, and application of evidence-based approaches to policy making. By strengthening the efficient and equitable use of space, Indonesia can accelerate the achievement of the NUA's vision for safe, resilient, sustainable and inclusive cities for all.

LCR higher than PGR indicates *urban sprawl*, which is the uncontrolled expansion of urban areas and inefficient land use. In this context, the proportion of land under protected natural areas plays an important role as a tool to control land conversion. The existence of protected areas, such as urban forests, national parks and conservation zones, serves as a physical and regulatory barrier to urban sprawl. By setting ecological boundaries through land protection, governments can encourage more concentrated and sustainable urban growth.

The proportion of land under protected natural areas in Indonesia has decreased from 27.14 million hectares in 2020 to 26.89 million hectares in 2023. However, this trend also occurred amidst the government's efforts to tighten deforestation control through various strategic policies and programmes. One of the main policies is Government Regulation No. 23/2021 on the Implementation of Forestry, which emphasises the importance of sustainable forestry governance. Programmes such as Social Forestry, moratorium on primary forest and peatland clearing permits (based on Presidential Instruction No. 5/2019), and the *Forest and Other Land Use (FOLU) Net Sink 2030* policy are also important factors in controlling forest cover change. Despite the decline in forest land, these control measures continue to be strengthened to preserve forests and achieve national greenhouse gas emission reduction targets.

1.3.1.2 Implement climate change mitigation and adaptation measures

Climate change mitigation and adaptation actions are reflected in a range of important indicators, including the climate change budget, air quality, and mortality rates from household and environmental pollution. The Government of Indonesia has gradually increased the climate change budget allocation, which is allocated across ministries and agencies to support greenhouse gas emission reduction programmes, critical land rehabilitation, renewable energy, and increasing community adaptive capacity to climate disasters. In terms of air quality, indicators such as PM2.5 concentration are used to monitor air pollution, especially in dense urban areas exposed to vehicle and industrial emissions; areas with high pollution levels are directed to expand green open spaces and improve environmentally friendly transport systems. Meanwhile, deaths attributed to household and environmental pollution, such as biomass burning for cooking and solid fuel use at home, remain a major challenge in remote and energy-poor areas. Adaptation efforts include clean energy provision, healthy housing, and public education on the health impacts of pollution. These three indicators are interrelated and serve as important benchmarks in assessing the effectiveness of climate policies and the readiness of the region to deal with the risks of climate change in a sustainable manner.

Climate change data

Indonesia's temperature anomalies continue to rise and reach the highest temperature in 2024. The national average temperature in 2024 was recorded at 27.52°C, which is the highest record in Indonesia's climate observations. The average temperature in Indonesia has shown an increasing trend in recent decades. This has an impact on the agricultural sector (decreased crop yields), health (increased heat-related diseases), and natural ecosystems.

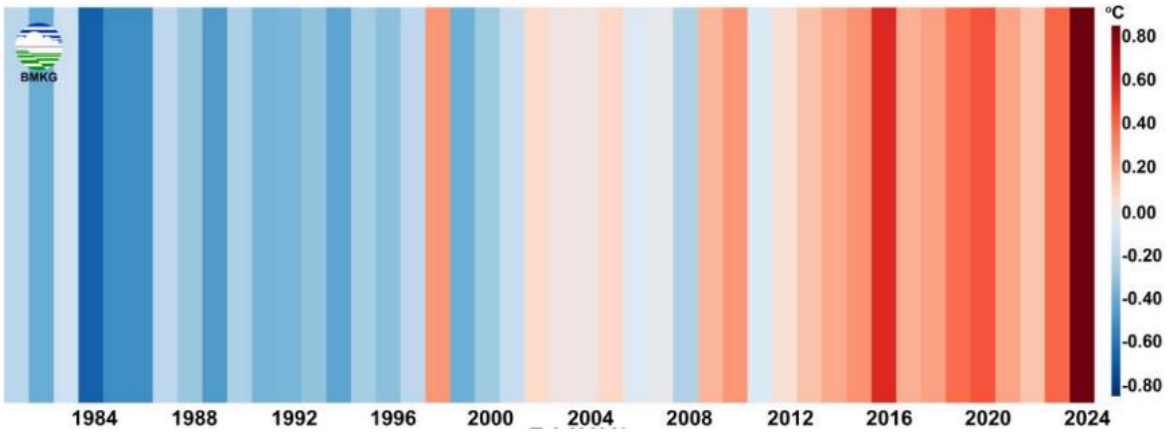


Figure 1.94 Indonesia's annual air temperature anomalies 1981-2024
Source: Directorate of Climate Change-BMKG

Temperature anomaly values also vary between regions, indicating that some areas are experiencing more significant temperature increases, and will require adjustments to adaptation strategies and priorities and policies used in each location will be different.

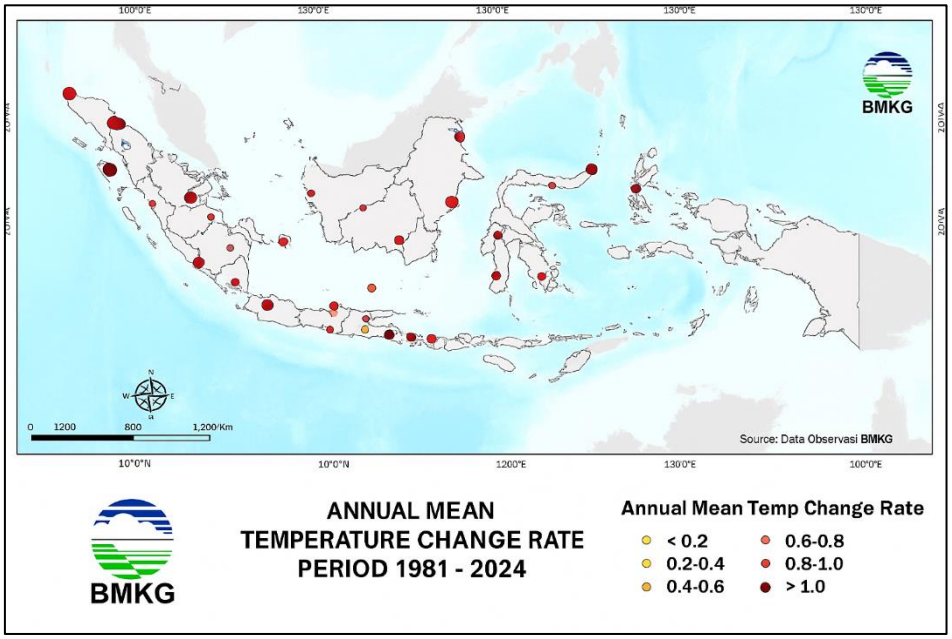


Figure 1.95 Rate of change of annual mean air temperature for the period 1981-2024
Source: Directorate of Climate Change-BMKG

A comparison of global and Indonesian temperature anomaly trends shows that although Indonesia's anomaly values are lower, the upward trend is consistent with global patterns. Indonesia's temperature anomaly in 2024 compared to the pre-industrial era is 1.15°C ± 0.09°C, still lower than the global temperature anomaly of 1.55°C ± 0.13°C, based on data from Berkeley Earth, NOAA Global Temp, and HadCRUT5. The increase in global temperature has a direct impact on Indonesia by triggering various extreme weather conditions in various regions. Heatwaves and extreme temperatures hit areas such as Java, Sumatra, and Kalimantan, where daily maximum temperatures increased above normal, posing health risks such as dehydration and heat-related illnesses. In addition, the La Niña phenomenon that emerged at the end of 2024 also caused an increase in rainfall in various regions, increasing the potential for floods and landslides. On the other hand, record-high ocean warming is exacerbating the situation, triggering stronger storms and extreme rainfall, with serious impacts on marine ecosystems and the national fisheries sector.

Sea level rise in Indonesia rises on average 4.3 ± 0.4 mm / year with higher rates in some eastern regions of Indonesia such as Maluku and Papua waters. This condition indicates that Indonesia's coastal ecosystems and surrounding communities are vulnerable to changes in Standard Sea Level (SSL), with Eastern Indonesia being a more vulnerable area, while the existence of small or outer islands requires extra attention because it can risk the sovereignty of the country. Indonesia as an archipelago is highly vulnerable to sea level rise. Coastal areas such as North Jakarta, Semarang, and several small islands are experiencing increasingly frequent abrasion and tidal flooding.

Map of Climate Zones in Indonesia

Climate datasets play an important role as a reference in designing new buildings and assessing the performance of existing buildings. BMKG and the Ministry of Public Works and Housing, supported by international collaboration with Kagoshima University, Hiroshima

University, Japan International Cooperation Agency (JICA) and Japan Science and Technology Agency (JST) under the SATREPS (Science and Technology Research Partnership for Sustainable Development) project collaboration, worked together to create innovations in the form of climate zone map products for passive cooling and *Typical Meteorological Year* (TMY) data products in Indonesia.

Information on climate zones can be accessed through the official portal of BMKG's I-TMY information system. I-TMY is an information system/tool that contains climate classifications including climate zone information for passive cooling techniques for buildings and TMY (typical meteorological year) dataset information in EnergyPlus Weather Data (EPW) format. The use of the I-TMY system supports infrastructure planning by providing accurate and representative climate data. This plays an important role in efforts to reduce carbon emissions in the building sector, as well as contributing to more effective climate change mitigation and adaptation strategies.

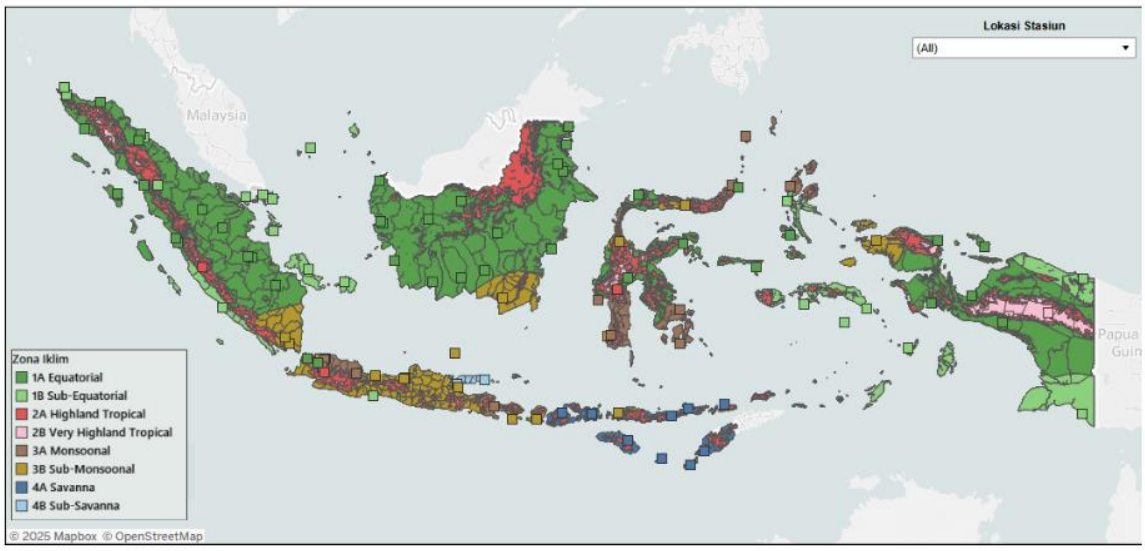


Figure 1.96 .I-TMY Display (Indonesia Typical Meteorological Year)
Source : https://iklim.bmkg.go.id/id/i-tmy/.

The climate zone map of Indonesia is divided into eight new climate zones and their passive cooling potential assessment, including climate zones 1A (equatorial), 1B (sub-equatorial), 2A (tropical highlands), 2B (tropical very highlands), 3A (monsoonal), 3B (sub-monsoonal), 4A (savanna), and 4B (sub-savanna). The TMY data developed consists of 106 locations of BMKG weather and climate observation stations spread throughout Indonesia. Unlike the Koppen-Geiger climate zones, the new climate zones take into account more complex climatic factors, including air temperature, air humidity, wind speed, rainfall, solar radiation, cloud cover, air pressure and *mixing ratio*.

Each of these new climate zones is also provided with passive cooling potential by considering climatic factors suitable for such passive cooling techniques. For example, climate zone 1A (equatorial) has a ventilation comfort potential of 7.7 hours during daylight hours, after considering air temperature and wind speed factors. Similarly, the potential for evaporative cooling after considering the factors of air humidity and wind speed, and other passive cooling methods. With this new climate zoning map, building planners and designers can take advantage of this climate zoning to maximise passive design and passive cooling according to their climate characteristics. Designers can choose appropriate building orientation and materials, design ventilation and *shading*, use suitable passive cooling strategies, and so on. It is hoped that, with passive strategies that match the characteristics of each climate, the cooling load of the building can be reduced, and indoor thermal comfort can be achieved without excessive energy use.

Climate change mitigation and adaptation efforts in buildings

The increasing trend of global air temperature due to climate change has caused negative consequences in various sectors. In the Infrastructure sector, specifically buildings, in recent decades, to achieve thermal comfort is dominated by the use of active cooling (*air conditioner*) which causes increased building energy consumption. Therefore, climate change adaptation strategies need to be developed in improving the ability of building performance to achieve thermal comfort with more energy efficiency.

Some passive cooling technologies and innovations in the concept of Green Building (BGH), such as *comfort ventilation, nighttime ventilation*, and *evaporative cooling* that consider several climate elements, including temperature, wind speed, and relative humidity, are promising solutions that can be applied to achieve indoor thermal comfort. This can reduce excessive building energy consumption in accordance with the climatic conditions of each region in Indonesia.

In line with this, the Ministry of Public Works developed a prototype energy-efficient apartment building in Tegal that serves as an example of passive and active design implementation. The design integrates building orientation, ventilation and energy-saving technologies, which is expected to reduce energy consumption by 30% from the baseline. Some of the passive design strategies include building orientation, building materials, shading, openings and ventilation strategies such as vertical voids, wind fins and wind catcher windows.The prototype flat is able to maintain a lower indoor air temperature than the outside air temperature, even when all doors and windows are closed. Although the thermal comfort level during the day is still above the comfort zone range (with operative temperature index), the cross ventilation that occurs throughout the day has the potential to improve thermal comfort through evaporative effect (with SET* index). In addition, vertical voids are able to improve airflow efficiency as shown by the relatively high wind speed ratio (WVR). This innovation will serve as a reference for the design of energy-efficient flats in the future.

Regarding the national commitment to reduce carbon emissions, the government has set a national emission reduction target of 31.89% to 43.20% by 2030 in the latest national emission reduction contribution determination document (ENDC). The energy sector is expected to contribute 358 million tonnes of CO_2 e towards meeting the target, of which around 37% or 132 million tonnes of CO_2 e of the total energy sector target will be contributed from efforts to implement energy efficiency in all energy-using sectors. Energy consumption in the buildings sub-sector, which includes commercial buildings and households, is estimated to account for nearly one-third of national electricity use. Thus, efforts to improve energy efficiency through the application of green building principles that save energy and water resources are a key component of the strategy to implement energy efficiency and fulfil the target of emission reduction achievements in the energy sector from the building sub-sector.

The Ministry of Public Works, together with the Ministry of Energy and Human Resources (ESDM) and the Ministry of Home Affairs (MoHA), supported by Gadjah Mada University (UGM) and the Global Buildings Performance Network (GBPN), has also launched the Roadmap for the Implementation and Guidance of Indonesia's Green Buildings on 12 October 2024. The BGH Roadmap is divided into several phases until 2030. In the first phase (2015-2020), the focus is on drafting regulations, technical standards, and increasing awareness and capacity of human resources through training and green building pilot projects, especially in government buildings. The second phase (2021-2025) targets the expansion of green building policy implementation to new large-scale buildings in major cities, strengthening the fiscal and non-fiscal incentive framework, and integrating green building criteria in the licensing process. This phase also targets 30% of new government buildings to implement green principles. The third phase (2026-2030) sets more ambitious targets, namely the *mandatory* application of green building principles for all new public buildings and major renovations, and the

implementation of a national building energy and emissions reporting system. The ultimate goal of the roadmap is to reduce building sector energy consumption by 30%, significantly reduce greenhouse gas emissions from the building sector, and make green building the norm in urban development. The roadmap also supports the achievement of Indonesia's Nationally Determined Contribution (NDC) commitment to climate change control.

To foster effective coordination in advancing Green Building implementation (BGH) at the local government level, it is important to promote collaboration among ministries overseeing the energy sector, the building sector, and domestic governance responsibilities. Collaboration and coordination through a structured division of roles between the central government and local governments is mandated by Law Number 16 of 2016 concerning Ratification of the *Paris Agreement to the United Nations Framework Convention on Climate Change*, along with Presidential Regulation Number 98 of 2021 concerning the Implementation of Carbon Economic Value for Achieving Nationally Determined Contribution Targets and Controlling Greenhouse Gas Emissions.

To realise this, the building needs to escalate, not only just functionally feasible, but also must become a Green Building (BGH), then a Smart Building (BGC), and is expected to become a Net Zero Emission Building which is Indonesia's target in 2060. The implementation of BGH is done through site management and adaptive building design, as well as the use of environmentally friendly utility equipment. Provisions regarding BGH have been regulated in detail in PP No. 16 of 2021 and Permen PUPR No. 21 of 2021, as well as its derivative regulations to ensure the implementation of BGH can be implemented.

After that, BGC or *smart building* adds a touch of advanced technology to enhance the existing energy efficiency value of BGH, a digital transformation of buildings. The Minister of PUPR Regulation No. 10 of 2023 has established the provisions of guidelines for the implementation of BGC in Indonesia. This regulation regulates the technical standards that must be met by Smart Buildings, such as security systems, energy management, and technology integration. BGC is a BGH that applies a smart building management system that is responsive to the context of the region, environment, local wisdom, and user needs that meet the technical standards of building and security systems using high technology that is integrated and works automatically in accordance with the principles of sustainability, function, and classification in every stage of its implementation. There are nine principles so that a building can be called smart, namely: working automatically; interconnected and integrated; application of integrated energy management; protection from cyber threats; use of data analytics and *machine learning*; oriented towards user satisfaction; flexible; continuous monitoring; and inclusive. These principles must be owned and fulfilled by every element in the building.

Climate change budget

In order to measure and optimise state budget support for climate change mitigation, the *Climate Budget Tagging* (CBT) system has been implemented since fiscal year 2016. In 2023, the Fiscal Policy Agency has implemented CBT 2023, but the results will only be reported after the Central Government Financial Report (LKPP) is published in May 2024. The analyses and reports prepared in 2023 are the results of the 2022 CBT. CBT is a process of identifying the amount of budget used to finance climate change mitigation and adaptation activities. Thus, climate change funding needs can be identified and can be allocated effectively and efficiently. In addition, climate change budget tagging aims to increase public transparency and accountability of state budget management.

Based on the CBT for climate change mitigation and adaptation, it is noted that the decrease in the state budget allocation to Ministries and Institutions (K/L) has an impact on the decrease in funds for climate change in 2022, which reaches IDR 66.61 trillion. In accordance with the

priorities for environmental development, disaster resilience, and climate change in the Government Work Plan (RKP) for 2022, most of the budget is allocated for adaptation, with a value of Rp42.99 trillion. This allocation is divided into the water sector (IDR 20.97 trillion), food and agriculture (IDR 10.79 trillion), disaster (IDR 8.47 trillion), marine and coastal (IDR 2.36 trillion), land ecosystems and forestry (IDR 368.17 billion), and health (IDR 30.19 billion).

Total realised expenditure for the climate change mitigation sector, including co-benefit expenditure, in 2022 reached IDR 23.63 trillion. The largest expenditure is for the energy and transport sector (IDR 19.51 trillion), followed by the forestry and land sector (IDR 2.29 trillion), waste sector (IDR 1.31 trillion), agriculture sector (IDR 476.58 billion), and Industrial Processes and End-Uses (IPPU) (IDR 24.26 billion).

The total state expenditure for climate change management, which can be utilised as underlying assets, reaches IDR 44.77 trillion. This potential is spread across various ministries' capital expenditures, such as the Ministry of Transportation (Rp6.86 trillion) for the sustainable transportation sector, and the Ministry of Public Works and Housing (Rp1.39 trillion) for waste management and waste-to-energy conversion projects. The largest climate change adaptation potential comes from the Ministry of Public Works and Housing through expenditures in the water, agriculture, disaster, marine and coastal sectors, with an underlying potential of IDR27.06 trillion.

The Ministry of Finance has also carried out climate change budget tagging activities (Regional Climate Budget Tagging/RCBT) with the main objectives to (i) evaluate the commitment of local governments in supporting efforts to address climate change, both mitigation and adaptation activities, (ii) analyse budgeting aspects in supporting efforts to address climate change, and (iii) become a reference in planning activities that support climate change action in the regions with the support of the APBD. In addition, the results of this tagging can also be used as an effort to communicate Indonesia's achievements in climate change management efforts in international forums.

Since 2020-2022, RCBT has been implemented involving the active participation of 20 Local Governments. In 2023, the RCBT process was focused on two pilot locations, namely the South Sulawesi Provincial Government and the West Nusa Tenggara Provincial Government. Based on the tagging results in the two regions, it can be concluded that the commitment to address climate change in South Sulawesi and West Nusa Tenggara Provinces has improved, which can be observed through two aspects, namely planning and budgeting. Climate change management activities in South Sulawesi and West Nusa Tenggara Provinces in the period 2020-2023 are dominated by adaptation activities. This activity dominates 88% of efforts to address climate change in South Sulawesi Province accumulatively. The dominating sector of adaptation activities in South Sulawesi Province is the agricultural sector with the largest contributor being the Food Crops, Horticulture and Plantation Service. While the land-based sector dominates the context of climate change mitigation. Furthermore, in West Nusa Tenggara Province, the value of adaptation reached 82.7% of all efforts to deal with climate change. The dominating sector of adaptation activities in the area is the water sector from the largest contributor of the Public Works and Housing Office.

Air Quality

Climate change and air quality are interconnected and have significant impacts on human health and the environment. Air pollutants, such as carbon dioxide, methane and black carbon, have a significant effect on climate change, causing global warming and changes in weather patterns. Conversely, climate change can also exacerbate air pollution through various mechanisms, such as increased temperatures that increase chemical reactions in the atmosphere, and changes in wind patterns that affect the dispersion of pollutants.

ISPU (Air Pollutant Standard Index) is a number that describes air quality based on several pollutant parameters. The ISPU gives an idea of the extent to which these particles can affect air quality, with higher ISPU values indicating poorer air quality. The parameters used in the calculation of the Air Pollutant Standard Index (ISPU) to date are Particulates (PM10 and PM2.5), Carbon Monoxide (CO), Sulphur Dioxide (SO2), Nitrogen Dioxide (NO2), Ozone (O3), and Hydrocarbons (HC) . [7]

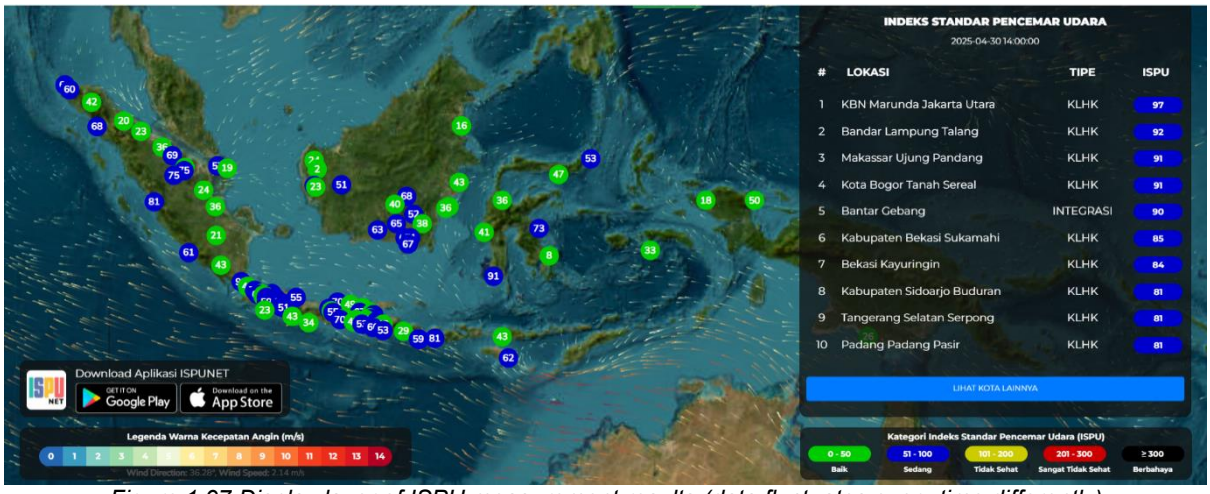


Figure 1.97 Display layer of ISPU measurement results (data fluctuates every time differently)
Source: https://ispu.menlhk.go.id/webv5/#/

The measurement of PM2.5 concentrations uses the beta-attenuation monitoring method with units of micrograms per cubic metre (µg/m³). These small particles are very dangerous because they can enter deep into the lungs and bloodstream. Indonesia began monitoring PM2.5 particles by the Meteorology Climatology and Geophysics Agency (BMKG) in 2015. The threshold values allowed in the ambient air for PM2.5 in Indonesia are: good (0 - 15.5 µg/m3), moderate (15.6 - 55.4 µg/m3), unhealthy (55.5 - 150.4 µg/m3), very unhealthy (150.5 - 250.4 µg/m3) and dangerous (>250.5 µg/m3). The air quality index in Indonesia for 2024 is in good and/or moderate condition. Based on the average concentration value, there are 9 PM2.5 observation locations that have an annual average concentration value below the annual quality standard concentration (15 µg/m3) and 14 PM2.5 observation locations have an annual average concentration value above the annual quality standard concentration.

[7] The results of the PM 2.5 ISPU calculation are delivered every hour for 24 hours. Meanwhile, parameters other than ISPU PM 2.5 are delivered twice a day at 09.00 and 15.00 WIB. The ISPU calculation method refers to Permen LHK No.14 of 2020 concerning the Air Pollutant Standard Index. ISPU is calculated from data from ambient air quality monitoring results with monitoring stations that operate automatically and continuously (AQMS) spread across 131 cities / regencies.

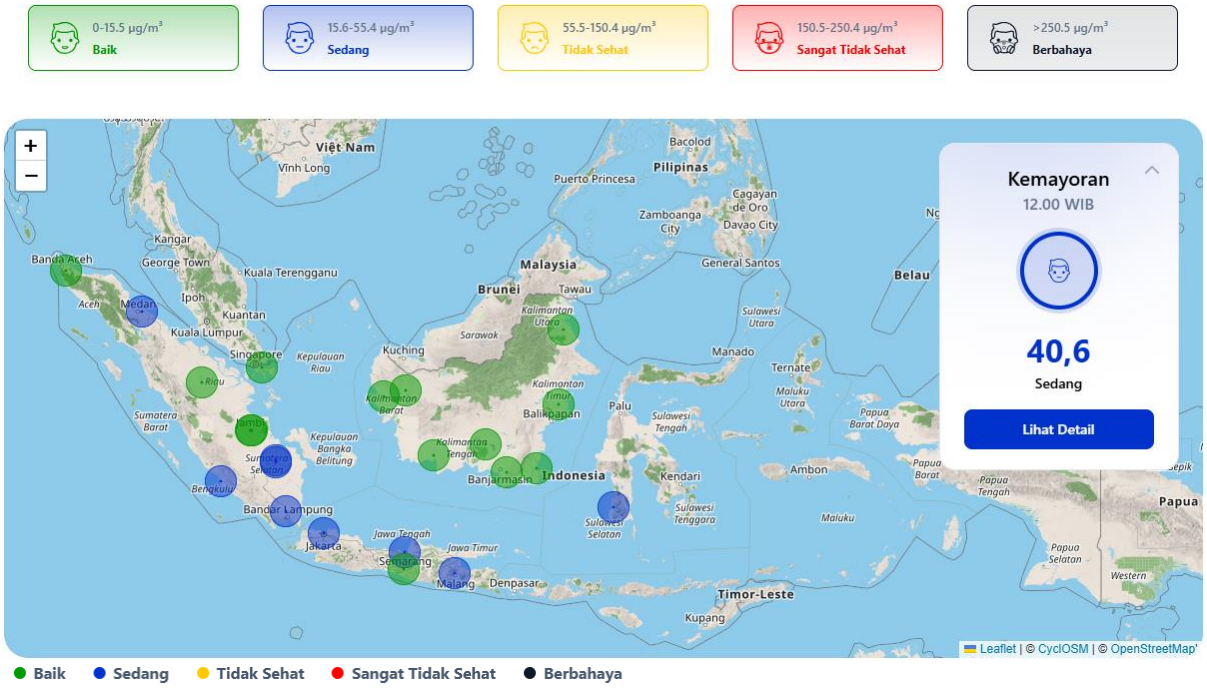


Figure 1.98 Display of PM2.5 measurement result layer
Source: https://www.bmkg.go.id/kualitas-udara/pm25
(data fluctuates daily)

The following figure shows the average concentrations of very small airborne particles and liquid droplets floating in the air (PM 2.5 and PM 10) throughout 2024 in Indonesia. The highest concentrations of PM 2.5 and PM10 are in Cilegon City, Bogor Regency and DKI Jakarta. The poor quality in these locations is caused by several key factors, including emissions from transport, industry and combustion activities. Other factors such as meteorological conditions (temperature, humidity, wind speed), and human activities (e.g. agricultural activities) can also affect the concentration of these particles.

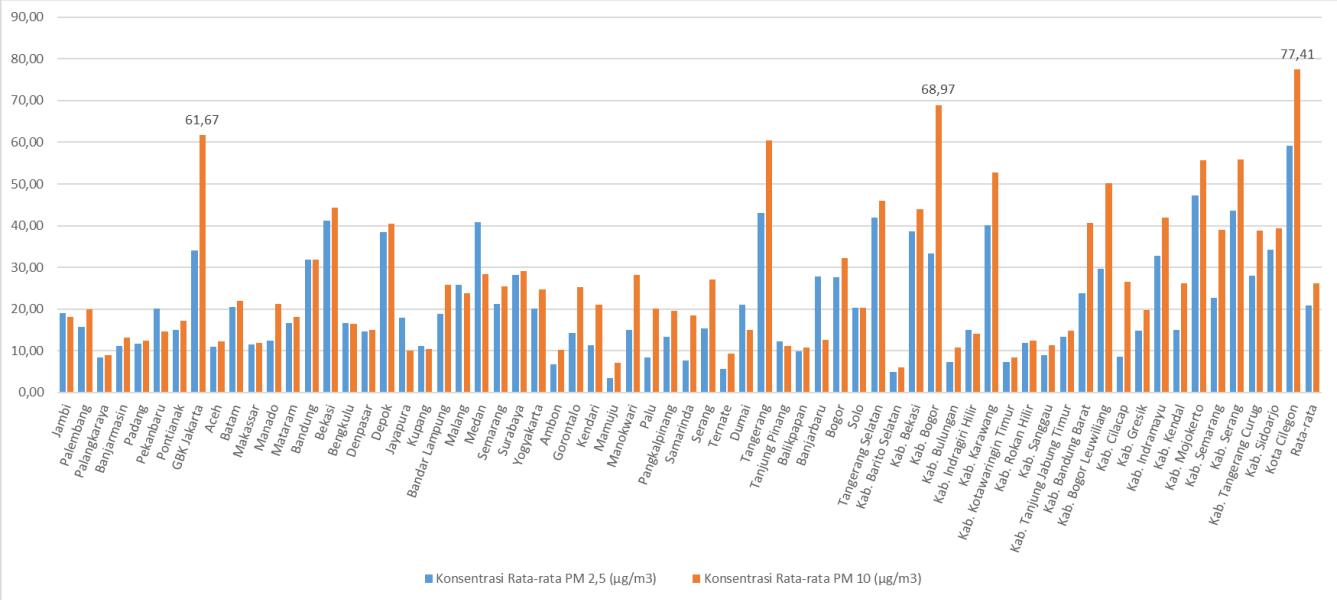


Figure 1.99 Particulate Matter Concentration in Indonesia, 2024
Source: Ministry of Environment, 2025

Mortality rates attributed to households and pollution

Data from the Ministry of Health on air pollution and mortality from respiratory diseases in Indonesia in the period 2021 to 2024 shows an alarming trend. In terms of air pollution, air quality in Indonesia experienced a slight improvement between 2020 and 2022. However, in 2023 there was a significant increase in pollution levels, especially in Jakarta, where the report noted worsening air quality compared to the small improvements that had occurred previously. For 2024, specific air quality data is not yet available.

On the other hand, mortality rates from respiratory diseases show a consistent pattern of increase. In 2021, WHO reported pneumonia caused 740,000 deaths of children under the age of five globally, while in Indonesia air pollution contributed to approximately 221,600 deaths. In 2022, 310,871 pneumonia cases were recorded in Indonesia, which increased to 330 cases with 53 deaths in 2023. A significant spike occurred in 2024, with 1,278 pneumonia cases and 188 deaths recorded. The 2023 data also showed that of the 10 diseases with the most cases per 100,000 population, 4 were respiratory diseases: chronic obstructive pulmonary disease (COPD) with 145 cases and 78.3 thousand deaths, lung cancer with 18 cases and 28.6 thousand deaths, pneumonia with 5,900 cases and 52.5 thousand deaths, and asthma with 504 cases and 27.6 thousand deaths. These diseases not only have a major impact on public health, but also put serious pressure on national health financing through BPJS. The risk of air pollution on respiratory diseases is recorded to be quite high, with COPD having a risk of 36.6%, pneumonia 32%, asthma 27.95%, lung cancer 12.5%, and tuberculosis 12.2%. This shows the urgency of addressing air pollution as part of efforts to improve public health in Indonesia.

In addition to data on pollution-related deaths, the impact of air pollution can also be seen in the prevalence of diseases based on data from Indonesian Health Survey 2023 (Ministry of Health, 2024). Highest prevalence of pneumonia is found in toddlers (<5 year) with 0.86 – 1.16% and followed by elderly (>65 year) with 0.62 - 0.86%. For pulmonary TB, the elderly has been found to have the highest prevalence with 0.50 – 0.59%. Toddlers have the highest prevalence of Acute Respiratory Infection (ARI) (4.4 – 4.9%), followed by the 5-14 year group (2.8%). Toddlers are more susceptible to ARI due to a still-developing immune system. By location of residence, air quality is better in rural areas, but many households still use biomass

fuel (wood, charcoal) which increases the risk of ARI. In urban areas, although pollution is higher, access to health facilities is better. The provinces with the highest prevalence of ARI in Indonesia are dominated by the Papua region, with Papua Pegunungan recording the highest rate of 10.7%, followed by South Papua (4.9%), Papua (4.6%) and Southwest Papua (3.8%). In addition, two other provinces that also recorded a high prevalence were Banten (3.1%) and Bali (3.0%). The high rate of ARI in the Papua region is influenced by limited access to health services, inadequate infrastructure, and humid environmental factors that increase the risk of respiratory diseases. In addition, the use of firewood for household needs causes indoor pollution that worsens public health conditions. On the other hand, Bali and Banten, despite being more economically developed, still show high rates of ARI. This is due to heavy levels of air pollution from both industrial and tourism activities, coupled with high exposure to cigarette smoke, dust and air pollution in densely populated areas. This data shows that environmental and socioeconomic factors have a significant contribution to the level of respiratory health of people in various regions in Indonesia.

According to National Health Insurance or *BPJS Kesehatan* data, during the 2018-2022 period, the budget covered for respiratory diseases also reached a significant figure and had an increasing trend each year. Pneumonia costs IDR 8.7 trillion, tuberculosis IDR 5.2 trillion, COPD IDR 1.8 trillion, asthma IDR 1.4 trillion, and lung cancer IDR 766 billion. The government continues to encourage preventive promotive efforts to prevent people from experiencing the impact of air pollution. There are 4 risk factors for lung disease, the first is air pollution, smoking history, recurrent infections and genetics, where air pollution contributes 15-30%.

One of the programmes launched to reduce mortality due to air pollution is the Blue Sky Programme in 1996 by the Ministry of Environment through the Decree of the Minister of Environment Number 15 of 1996. The Blue Sky Program is a program that aims to control and prevent air pollution and create environmentally conscious behaviour from both immobile sources (industry) and mobile sources, namely motor vehicles. The Blue Sky Programme is a government programme to reduce air pollution, especially from motor vehicles. This programme aims to improve air quality and a clean and comfortable environment. The objectives of the Blue Sky Program are reducing exhaust emissions, realising environmentally conscious behaviour, improving ambient air quality, reducing the impact of air pollution on public health and the environment.

The regulation of motor vehicle emission tests in Indonesia is regulated in several regulations, including Government Regulation Number 22 of 2021 concerning the Implementation of Environmental Protection and Management, Minister of Environment Regulation Number 05 of 2006 concerning Thresholds for Exhaust Gas Emissions of Old Motor Vehicles replaced by Ministerial Regulation 08/2023 regulating the application of emission quality standards for motor vehicles in categories M (passenger vehicles), N (goods vehicles), O (trailers and semi-trailers), and L (two- and three-wheeled vehicles). This regulation requires motor vehicles that have been operating for more than three years to meet the emission standards set through emission tests. Emission tests aim to measure the levels of pollutants produced by vehicles, such as carbon monoxide (CO), hydrocarbons (HC), and nitrogen oxides (NOx). The emission test is conducted by the periodic test implementation unit and the emission test implementation unit. The results of this emission test become an administrative requirement in the payment of motor vehicle tax.

1.3.1.3 Develop systems to reduce the impact of natural and man-made disasters

Indonesia as an archipelago prone to various natural disasters, including earthquakes, tsunamis, volcanic eruptions, as well as hydrometeorological disasters such as floods, droughts, and forest fires, continues to strengthen its commitment in building resilient systems

to reduce disaster risks. In line with the principles of the New Urban Agenda and *the Sendai Framework for Disaster Risk Reduction* (SFDRR), strengthening national and local capacity in disaster risk mitigation and adaptation is a top priority. The Government of Indonesia through cross-sectoral synergies has developed various policies, early warning technology systems, risk mapping, and strategies to increase the resilience of cities and urban areas in facing various disaster threats, both natural and man-made. These efforts reflect concrete steps towards inclusive, safe and sustainable urban development, with a focus on protecting vulnerable groups and strengthening the role of local governments in disaster management.

Indonesia has made significant progress in disaster risk reduction during the 2015-2024 period, as reflected in the reduction of the Indonesia Disaster Risk Index (IRBI) by 3.72 points (2.82%) nationally. This achievement is supported by increased regional participation in the Regional Resilience Index (IKD) assessment, where the number of participating districts/cities increased from 121 in 2020 to 445 in 2024. This increase shows the stronger commitment of local governments in managing disaster risk, although challenges still remain.

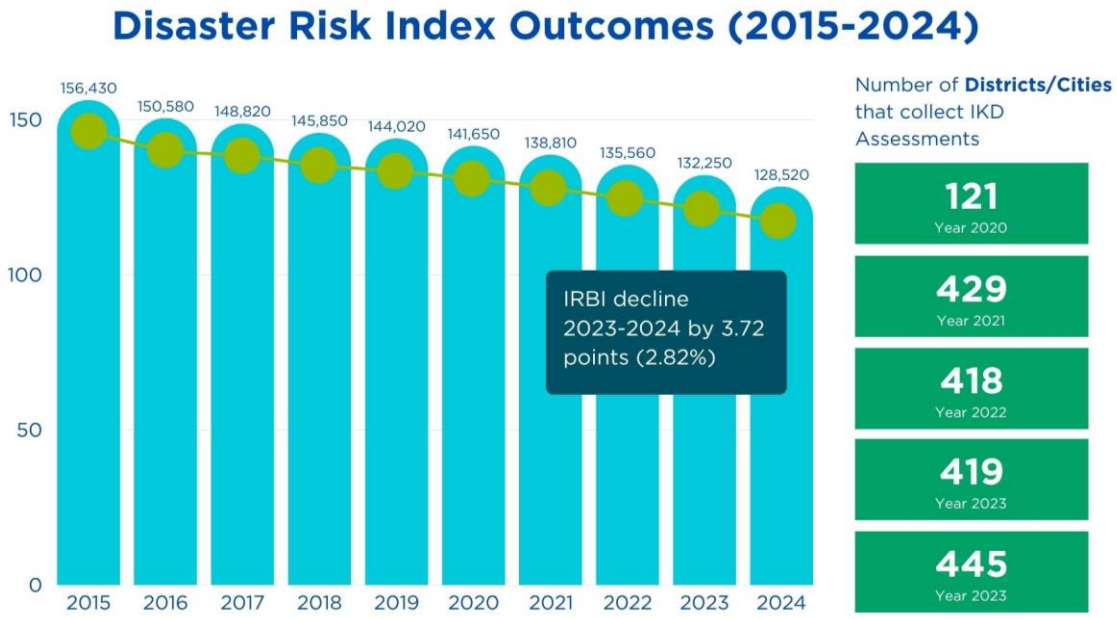


Figure 1.100 Disaster Risk Index Outcomes (2015-2024)
Source: BNPB, 2025

The national trend shows improvement, with 8 provinces and 151 districts/municipalities still classified as high risk, while 30 provinces and 363 districts/municipalities are at a moderate risk level. This indicates the need for a more focused approach based on local characteristics, especially in areas with high vulnerability. Risk reduction efforts have been strengthened through various policies, such as the integration of disaster risk reduction (DRR) into the Regional Medium-Term Development Plan (RPJMD), strengthening early warning systems, and rehabilitating disaster-prone ecosystems.

The regional disaster risk reduction strategy is in line with the national strategy

Based on the official report on the *Sendai Framework Monitor* managed by UNDRR, Indonesia recorded a number of important achievements in the implementation of disaster risk reduction strategies . As of 2023, only 19% of local governments in Indonesia have formally integrated Disaster Risk Reduction (DRR) strategies into their Regional Medium-Term Development Plans (RPJMD). This data from the National Disaster Management Agency (BNPB) and Bappenas indicates that most regions do not have structured disaster planning, even though Indonesia is classified as one of the countries with the highest disaster risk in the world.

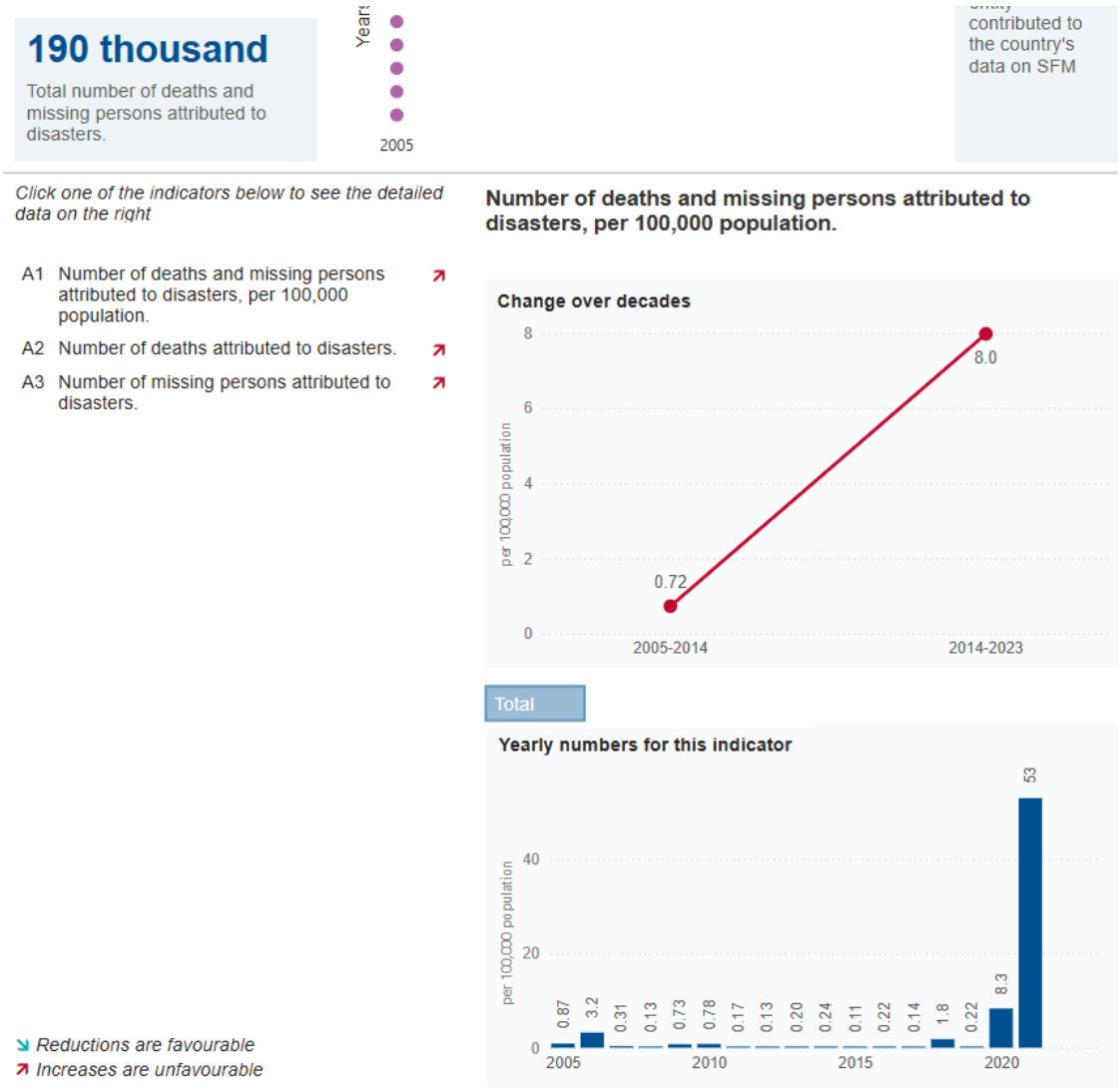


Figure 1.101 Sendai Framework dashboard view for Indonesia data
Source: https://sendaimonitor.undrr.org/

To overcome this, the central government has established strategic documents such as the 2020-2044 Disaster Management Master Plan (RIPB), which serves as a reference in national and regional disaster management. The government also continues to encourage risk-based planning through mainstreaming mechanisms in RPJMD documents and Contingency Plans.

Statistically, Indonesia recorded significant impacts from disasters during the period 2005 to 2023. During this period, 190,000 people were killed or missing, and more than 30.4 million people were affected by various disaster events. In addition, the total cumulative economic loss reached approximately 84 billion USD, reflecting the financial burden of disaster impacts on national development. Furthermore, 6,662 critical infrastructures were also damaged, including health, education and public service facilities, indicating the need to strengthen the infrastructure resilience system as a whole. Trends show a significant increase in the number of people affected by disasters, from 0.72 per 100,000 people (2005-2014) to 8 per 100,000 people (2014-2023). This increase is partly due to major forest fires in 2023, which burned an area of 1.16 million hectares, a five-fold increase from the previous year. Despite this, various disaster mitigation efforts have been made in various forms, ranging from multi-hazard mapping to early warning as prevention.

Multi-hazard monitoring and forecasting system

Multi-hazard mapping efforts in Indonesia are progressing rapidly, especially in the integration of monitoring, early warning and predictive modelling technologies that support urban planning and disaster risk management. While national quantitative data on the percentage of cities with multi-hazard mapping is still being refined, the various systems that have been implemented show that a number of major cities are actively pursuing this practice.

Indonesia has strengthened its disaster risk management system through the development of the InaRisk Platform by the National Disaster Management Agency (BNPB). The platform provides spatial and thematic information online (via web and mobile devices) on 13 types of disasters, including floods, earthquakes, tsunamis, volcanic eruptions, droughts and multi-hazard risks. InaRisk features interactive risk assessment-based maps that include data on hazards, vulnerabilities, capacities, as well as estimates of potentially affected populations and infrastructure across all provinces in Indonesia.

Figure 1.102 ***Inarisk Display***
Source: https://inarisk.bnpb.go.id/

As part of this system strengthening effort, the government has also developed a 1:250,000 scale multi-hazard risk map that is used as the basis for spatial planning and risk-based mitigation policies. The risk assessment is conducted with a holistic approach that integrates hazard analysis (probability and intensity of occurrence), vulnerability (social, economic, physical and environmental), and disaster management capacity. This assessment methodology is supported by 71 quantitative indicators that serve as a reference in the development of *disaster risk* reduction (*DRR*) policies and programmes. These measures reflect Indonesia's commitment to SFDRR and form the basis for integrating disaster resilience principles into national and regional development planning documents, such as the RPJMD (Regional Medium-Term Development Plan) and RTRW (Regional Spatial Plan).

Earthquake disaster mitigation efforts through earthquake maps and building standards

Indonesia is working to build earthquake resilient cities. This step is supported by the Ministry of Public Works (PU) through the Centre for Earthquake Studies (PuSGeN) by compiling Norms, Standards, Procedures and Criteria (NSPK) for earthquake-resistant construction,

including the update of the Indonesia Earthquake Hazard and Source Map Book 2024. The Indonesia Earthquake Hazard and Source Map 2024 is an update to the 2017 Earthquake Hazard and Source Map, which is an important basis for planning and building earthquake-resistant infrastructure that promotes national security and safety. The map specifically shows the location and seismic potential of a region, helping to determine the level of seismic risk faced by a building or structure.

To support earthquake-resilient urban development, Indonesia continues to update the Indonesian National Standard (SNI) related to earthquake-resistant construction. SNI 1726:2019 on Earthquake resistance planning procedures for building and non-building structures serves as a general standard, but for more complex structures such as high-rise buildings or buildings with earthquake damping systems, this standard has limitations. SNI 8899:2020 on Procedures for the selection and modification of surface ground motions for the design of earthquake-resistant buildings comes as an important guide in the selection of ground motions, considering that the influence of local soil conditions and geology has a major influence on how buildings respond to earthquakes.

The latest breakthrough is the development of SNI 9273:2025 on Seismic Evaluation and Rehabilitation for Existing Buildings and SNI 9274:2025 on Seismic Evaluation and Rehabilitation of Existing Concrete Buildings - Standards and Explanations. These SNIs allow evaluating the vulnerability and seismic rehabilitation of existing buildings. The aim is to ensure that all vital facilities, such as hospitals and government offices, fulfil minimum safety standards against earthquakes.

Impact-Based Forecasting (IBF) Multi-Hazard Early Warning System

The Meteorology, Climatology and Geophysics Agency (BMKG) as one of the key institutions has developed a technology-based early warning system to support more accurate and comprehensive risk mapping, including: MEWS weather monitoring and early warning system in all provinces, *Impact-Based Forecasting* (IBF) for 1-3 hours ahead disaster forecasting by integrating hydrological models to estimate impacts more precisely, *Real-Time Dissemination Platform Dashboard Signature*, which conveys forecast and risk information directly and visually, to meet the needs of stakeholders, especially Regional Disaster Management Agencies (BPBDs) at the provincial and district/city levels that are prone to disasters.

In the transport sector, BMKG is strengthening safety support through cooperation with the Directorate General of Highways, by integrating weather information into the *Dynamic Message Sign* (DMS) at various toll roads in the Greater Jakarta area. This real-time weather information is displayed on electronic information boards to help motorists anticipate risks. The programme is planned to be expanded to Central Java and East Java in 2025.

In the tourism sector, BMKG has developed a weather risk index classified from ideal to dangerous conditions. This index provides guidance for tourists and tourism industry players in planning activities safely and adaptively to weather conditions.

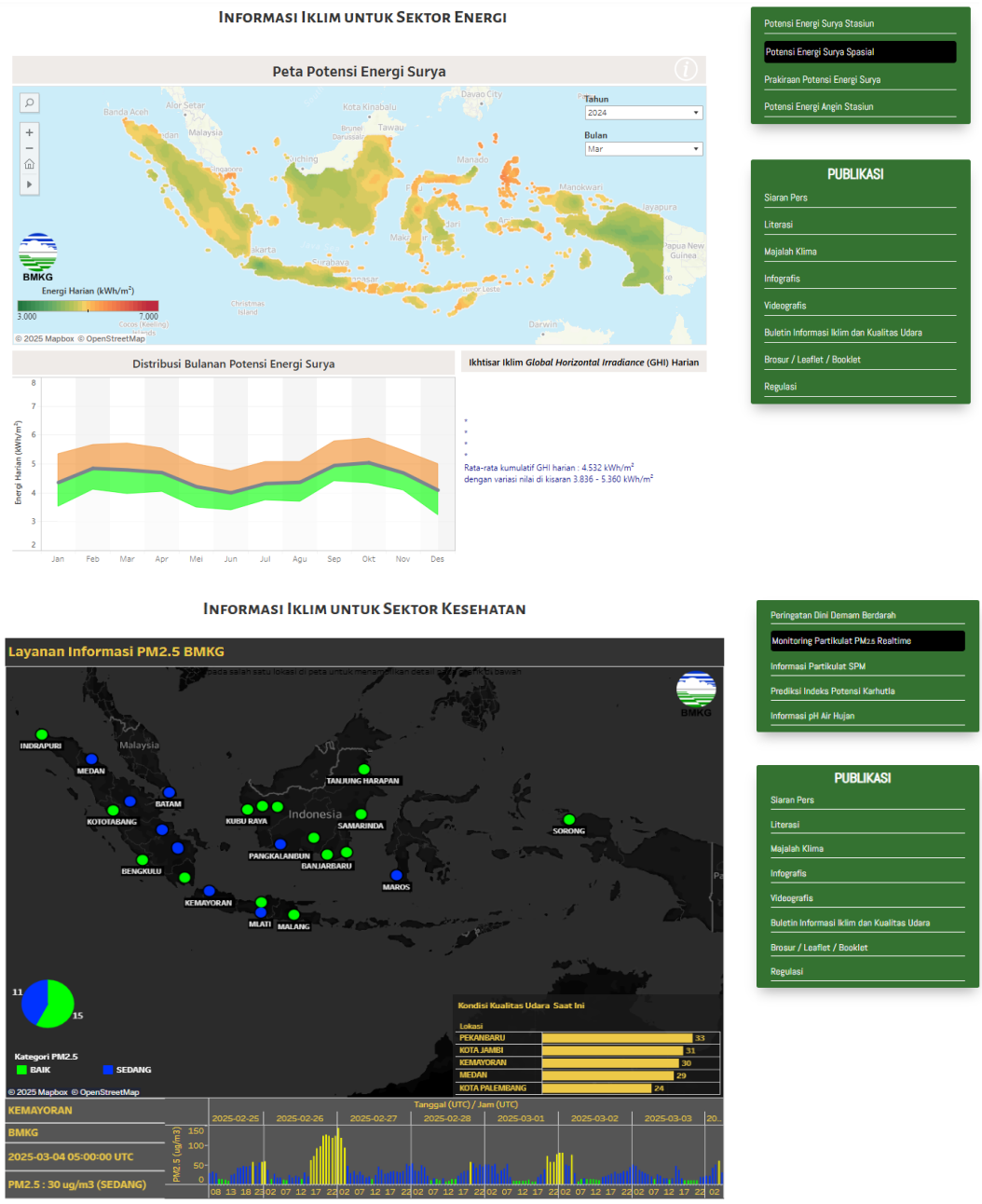


Figure 1.103 ***Map view of energy and climate potential for the health sector***
Source: https://iklim.bmkg.go.id/id/energi/ ; https://iklim.bmkg.go.id/id/kesehatan/

In the energy sector, BMKG supports national energy security and planning through the development of the Climate Information Dashboard for the Energy Sector. This system presents spatial and temporal data on solar energy potential, including daily and monthly Global Horizontal Irradiance (GHI) distributions, which can be utilised for the development of solar power plants. In addition, BMKG is also collaborating with PT PLN (Persero) in developing an Impact-Based Forecasting system to anticipate extreme weather risks to electricity infrastructure, such as substations and distribution networks, in order to improve preparedness and reliability of energy services.

In the health sector, BMKG supports efforts to mitigate public health risks through the provision of real-time air quality information services, especially PM2.5 particulate concentrations. Through the Climate Information Dashboard for the Health Sector, the public and stakeholders can monitor air quality conditions in various major cities in Indonesia. The system displays air

quality categories, PM2.5 daily trends, and an interactive map of monitoring locations. This information supports early decision-making, especially in the protection of vulnerable groups such as children and the elderly.

Until 2023, BMKG has installed 27 PM2.5 monitoring devices, 5 greenhouse gas (GHG) monitoring devices, 2 ozone monitoring devices, and 1 black carbon monitoring device in various regions. PM2.5 data is monitored every hour and can be accessed in real-time through the BMKG website and application. The 2024 monitoring results show that 12 locations are below the annual threshold (15 µg/m³), while 15 other locations exceed the threshold, with the highest concentration recorded in Central Jakarta. In addition, BMKG also conducts modelling and studies on other air quality parameters, including the influence of global climate variability such as El Nino-Southern Oscillation (ENSO) and Indian Ocean Dipole (IOD) on air pollution dynamics in Indonesia. All of these initiatives show that Indonesia is building a multi-hazard mapping system that is not only based on historical data, but also uses predictive and participatory approaches, with the support of cutting-edge technology.

SMS Blast Based Multi-Hazard Early Warning System and television broadcasts

Indonesia has developed a multi-hazard early warning system, one of which is through the use of *Short Message Service* (SMS) Blast as a method of disseminating information quickly and widely in the event of a disaster or emergency. This system allows the delivery of warnings directly to the public without the need for an internet connection, making it very effective in areas with limited data access.

Table 1. 3 Early Warning System by hazard category

Hazard Category	EWS (Early Warning System)	Monitoring and forecasting users
Meteorology: rainfall, temperature, wind	https://signature.bmkg.go.id/	Public, land transport sector
	https://inasiam.bmkg.go.id/	air transport sector
	https://maritim.bmkg.go.id/inawis	maritime and fisheries transport sector
Climatology: air quality,	https://iklim.bmkg.go.id/id/; https://www.bmkg.go.id/kualitas-udara/pm25	Public, development actors, energy sector
Earthquake-Tsunami	https://inatews.bmkg.go.id/	Public, BNPB, BPBD, TNI/Police, harbour, school, hospital

Various types of early warnings delivered via SMS Blast in Indonesia include: Tsunami early warning from INATEWS-BMKG (Indonesia Tsunami Early Warning System), Extreme weather information from BMKG, Volcano activity warning from PVMBG (Centre for Volcanology and Geological Disaster Mitigation) through BPBD, Flood warning from Water Resources Agency (SDA) and BPBD at the regional level, Significant earthquake warning with potential major impact from BMKG, Early warning of forest and land fires, Tsunami warning in coastal areas as a complement to the siren system, and Health warning and potential disease outbreak from the Ministry of Health.

The targets of this system include the general public, as well as strategic sectors such as land, air, maritime and fisheries transport, to development actors in the energy sector. The main advantage of SMS Blast is its ability to reach a wide and fast population with only 2G signal support, which is still evenly available in most parts of Indonesia. To date, 2G signal coverage in Indonesia reaches 73.07% of the total land area (1,900,075 km²), and covers 99.08% of the total settlement area (46,027 km²). With the ability to reach remote and densely populated

areas simultaneously, SMS Blast has become one of the important components in Indonesia's responsive and inclusive early warning system.

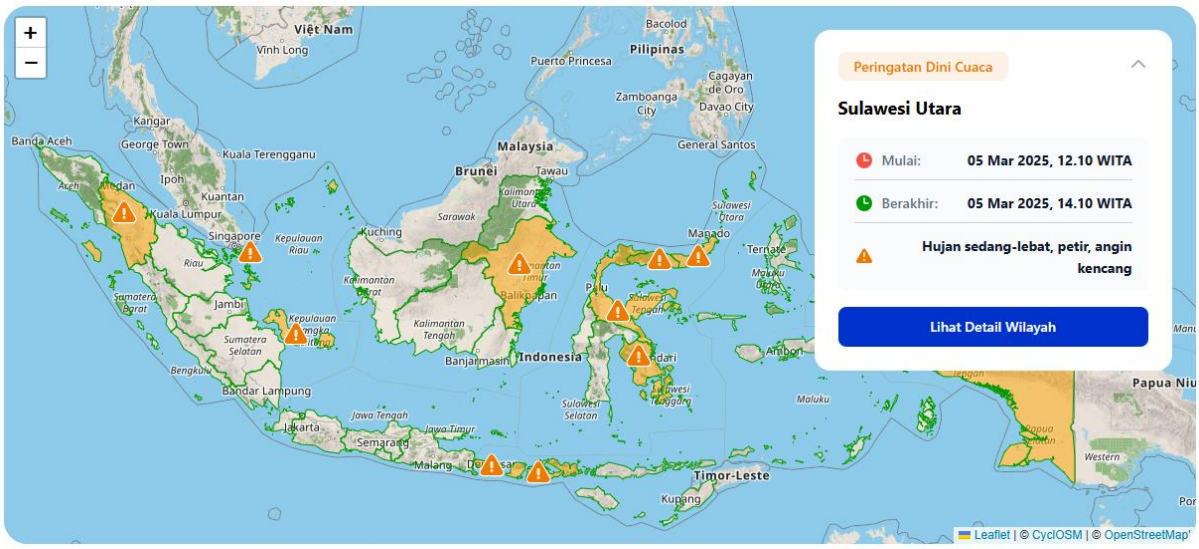


Figure 1.104 Map view with weather early warning
Source: https://www.bmkg.go.id/cuaca/peringatan-dini-cuaca

Tsunami Early Warning System (Ina TEWS)

The development of the Indonesia Tsunami *Early Warning System* (Ina TEWS) was a direct response to the devastating tsunami that struck Aceh Province on 26 December 2004, killing more than 173,000 people in Indonesia. The tragedy became an important momentum for Indonesia and the international community to establish a more effective and responsive tsunami early warning system. Ina TEWS was officially launched in November 2008 by the President of the Republic of Indonesia. The system was developed through collaboration between domestic institutions, such as BMKG, BPPT, LIPI and BNPB, as well as with technological and funding support from international partners such as Germany, Japan, France and the United States. Since its launch, Ina TEWS has undergone significant improvements in infrastructure and technology. Its main implementations include: Monitoring Network: 160 broadband seismometers, 500 accelerometers, 40 GPS stations, 80 tide gauges, 23 tsunami buoys. When an earthquake with tsunami potential occurs (magnitude >7 SR, depth <70 km and at sea), seismic sensors immediately send data to the BMKG Tsunami Early Warning Centre. If the tsunami potential is confirmed by buoys and tide gauges, the BMKG issues a warning that is distributed through various communication channels, including SMS, sirens, radio and television.

Since 2021, the Government of Indonesia has launched an *Early Warning System* (EWS) integrated in digital television broadcasts as part of the disaster information delivery system. This early warning system is designed to provide information about various disasters and emergency incidents directly to television screens throughout the country, which has served 514 districts / cities. Currently, EWS Digital TV can broadcast a variety of disaster-related information from K/L/D data providers, including: Earthquakes, tsunamis, extreme weather from BMKG, Forest and land fires from Ministry of Forestry, Floods in the Jakarta area from BPBD DKI Jakarta, Volcanic activity from PVMBG, and Disaster information from BNPB.

Figure 1.105 ***EWS Process***
Source: Ministry of Comdigi, 2025

Strengthening *Preparedness* through *Disaster Preparedness and Prevention Information System* (DPIS)

As part of strengthening the overall disaster risk management system, the Government of Indonesia through the National *Disaster* Management Agency (BNPB) has developed the *Disaster Preparedness and Prevention Information System* (DPIS). This system serves as a strategic information platform that supports planning, decision-making and implementation of disaster preparedness and prevention programmes across Indonesia. DPIS is designed to integrate various types of data and information relevant to disaster preparedness, such as: Maps of disaster hotspot locations, Inventory of resources (logistics, manpower, evacuation facilities), Contingency plans and regional emergency plans, Assessment of regional capacities and needs in facing potential disasters, and Reporting of preparedness exercises and simulations. The system also supports the process of preparing and updating the Regional Action Plan for Disaster Risk Reduction (RAD-PRB) and its integration into regional development planning documents. By connecting various parties, including provincial and district/city BPBDs, technical agencies, and local communities, DPIS strengthens cross-sector and cross-region coordination in disaster risk reduction efforts.

In addition, DPIS is an important complement to other platforms such as Ina Risk and Ina TEWS, with a primary focus on long-term preparedness and prevention. By providing systematic and spatially-based data, DPIS supports a more responsive, evidence-based and inclusive early warning system. The existence of DPIS confirms Indonesia's commitment to building a comprehensive disaster risk management system, with an approach that prioritises prevention and preparedness as part of a sustainable development architecture.

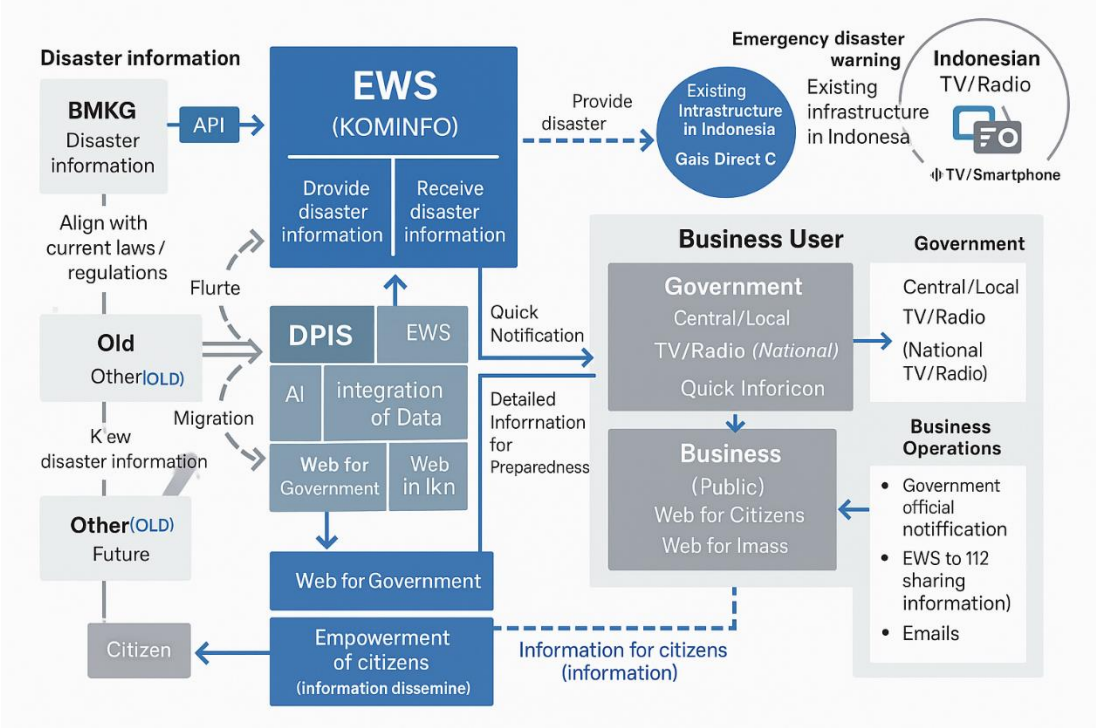


Figure 1.106 Scheme of Integration of Early Warning and Disaster Information Systems in Indonesia

1.3.1.4 Building urban resilience through quality infrastructure and spatial planning

Percentage of cities with multi-hazard mapping

This indicator aims to determine how many districts/cities have capacity in the aspects of policy, institutions, resources, planning, and implementation, as important information in integrating disaster risk into regional development planning including the location of infrastructure and settlement development, disaster risk reduction efforts.

Indonesia has a comprehensive disaster management framework, which includes the existence of a Disaster Risk Assessment (DRA) document to understand potential threats and vulnerabilities, a Regional Resilience Index (IKD) to measure regional capacity to deal with disasters, and a Disaster Management Plan (RPB) as a structured action guide to reduce risk and improve preparedness. Based on data from 2020-2024, there is an increase in the percentage of districts/cities that have an IKD, KRB Study, and RPB. In 2020, 125 districts/cities (24.52%) had IKD, 144 districts/cities (28.02%) had KRB, and 174 districts/cities (33.85%) had RPB. By 2024, 445 districts/municipalities (86.58%) have IKD, 352 districts/municipalities (68.40%) with KRB, and 323 districts/municipalities (62.84%) with RPB.

This increase indicates a wider effort by local governments in identifying potential risks through KRBs and planning disaster management actions through RPBs. As more districts have KRBs, they have a better understanding of the vulnerable zones, allowing for more adaptive spatial planning and development with stronger requirements in disaster risk areas. In addition, the existence of RPBs that are based on a good understanding of risks (visualised through multi-hazard mapping) will enhance community and stakeholder preparedness in the face of potential disasters.

Table 1. 4 Number of cities/districts with IKD, KRB, RPB

No.	Year	Number of districts/cities					
		IKD		KRB		RPB	
		Total	Percentage (%)	Total	Percentage (%)	Total	Percentage (%)
1.	2020	125	24,32	144	28,02	174	33,85
2.	2021	421	81,91	161	31,32	192	37,35
3.	2022	422	82,10	196	38,13	228	44,36
4.	2023	419	81,52	263	51,17	274	53,31
5.	2024	445	86,58	352	68,48	323	62,84

Source: BNPB 2025

Law No. 24/2007 on Disaster Management is the main foundation for disaster management in Indonesia, with Article 35 mandating the preparation of a National Disaster Management Plan (RENAS PB) which is then further elaborated at the regional level. As further implementation, Government Regulation 21/2008 regulates the implementation of disaster management, including the stages that require risk analysis and planning, which form the basis for disaster risk reduction (DRR) planning. In addition, the role of the National Disaster Management Agency (BNPB) in issuing technical regulations is crucial. Several BNPB Chief Regulations, such as BNPB Chief Regulation No. 4/2008, emphasise the importance of preparing Disaster Risk Assessments (DRRs) and Disaster Management Plans (DRPs) at the local level. At the national level, strategic documents such as National Disaster Management Plan (Rencana Nasional Penanggulangan Bencana / RENAS PB and the Disaster Management Master Plan (RIPB) encourage local governments to develop risk-based disaster management plans. To strengthen implementation at the local level, many provinces and districts/cities have issued local regulations (Perda) that regulate in more detail disaster management in their areas, including the obligation to conduct risk assessments and develop disaster management plans. With these clear and integrated regulations in place, Indonesia is committed to building community and infrastructure resilience in the face of potential disasters, in line with national efforts to achieve disaster resilience.

1.3.2 Sustainable Management and Utilisation of Natural Resources

1.3.2.1 Strengthen sustainable natural resource management in urban areas

Indonesia is committed to facilitating sustainable management of natural resources in cities and human settlements. This commitment includes efforts to protect and enhance urban ecosystems and environmental services, reduce greenhouse gas emissions and air pollution, promote disaster risk reduction and management, and enable economic development (NUA §65). Sustainable management of natural resources can be seen through three main complementary indicators: material footprint, household material consumption, and green area per capita. Indicator 21 covers material footprint, i.e. the total use of natural resources (such as minerals, biomass, fossil fuels) used to sustain economic activity; material footprint per capita reflects individual consumption intensity, while material footprint per GDP measures the efficiency of material use relative to economic growth. Indicator 22 deepens the analysis by focusing on material consumption by households, both in total and per capita, as well as against GDP, showing how people's consumption patterns affect pressure on natural resources. Meanwhile, indicator 27, green area per capita, illustrates the availability of green open space, which is not only important for ecological balance, but also for people's health and well-being, especially in urban areas. Good management will be reflected in a decreasing material footprint and material consumption per unit of GDP (increasing efficiency), as well as increasing green area per inhabitant. These three indicators are key benchmarks in monitoring Indonesia's transition to a green economy and sustainable development that maintains a balance between economic growth, social welfare and environmental sustainability.

Within the same subcategory, indicators of domestic material consumption, domestic material consumption per capita, and domestic material consumption per GDP are used to monitor progress under the theme "Sustainable Management and Use of Natural Resources" and the category "Strengthening sustainable management of natural resources in urban areas". The basis for selecting these indicators is commitments (including NUA §65) that call for sustainable management of natural resources in cities and human settlements in ways that protect and enhance urban ecosystems and environmental services, through environmentally sound urban and territorial planning.

Material footprint and material consumption by households

History shows that increasing industrialisation in a country will increase income levels and consequently, increase consumption. This pattern is usually reflected in a country's material footprint or raw material consumption. For Indonesia, a slight increase in resource productivity can be seen between 1990 and 2024 for both consumption indicators DMC and MF. This means that GDP increases faster than material consumption - a phenomenon called "relative decoupling". The concept of decoupling can be divided into the disconnection between economic growth and resource use (resource decoupling), and the connection between economic growth and environmental stress (environmental decoupling) (see Figure above). Currently, the decoupling debate focuses on decoupling resources in the production process, i.e. increasing resource efficiency, following the assumption that in that way environmental impacts will also be reduced.

When evaluating *decoupling* trends, two types of *decoupling* can be distinguished: Relative decoupling is achieved when economic growth exceeds the growth of material use. In contrast, achieving economic growth while at the same time reducing overall material use is called absolute *decoupling*. While both cases require increased efficiency in the use of raw materials, only the latter can be seen as a means to lower pressure on the environment.

Indonesia's raw material productivity development was mainly fuelled by a sharp increase in GDP. However, raw material consumption also increased rapidly, but at a slightly slower pace. When comparing the increase in MF in absolute value with the per capita value, it can be seen that the increase in MF is partly due to demographic developments (i.e. population growth). The other main drivers of the increase in MF are GDP growth and the resulting levels of income and consumption.

It can be seen that from 1990 to 2024, Indonesia's GDP (purple line) experienced the sharpest increase, reaching an index close to 400 in 2024. Meanwhile, the material footprint or *Raw Material Consumption* (RMC) and domestic material consumption (DMC) also increased significantly, with the index reaching around 350 and 300 respectively, signalling that Indonesia's economic growth is still highly dependent on material consumption.

However, a higher increase in GDP than material consumption causes material productivity (GDP/DMC and GDP/RMC) to also increase, albeit more slowly. This indicates an improvement in the efficiency of material use in producing economic output, although the increase is not as fast as economic growth itself. Specifically, in 2017, Indonesia's material footprint was 1,888,639,107 tonnes,

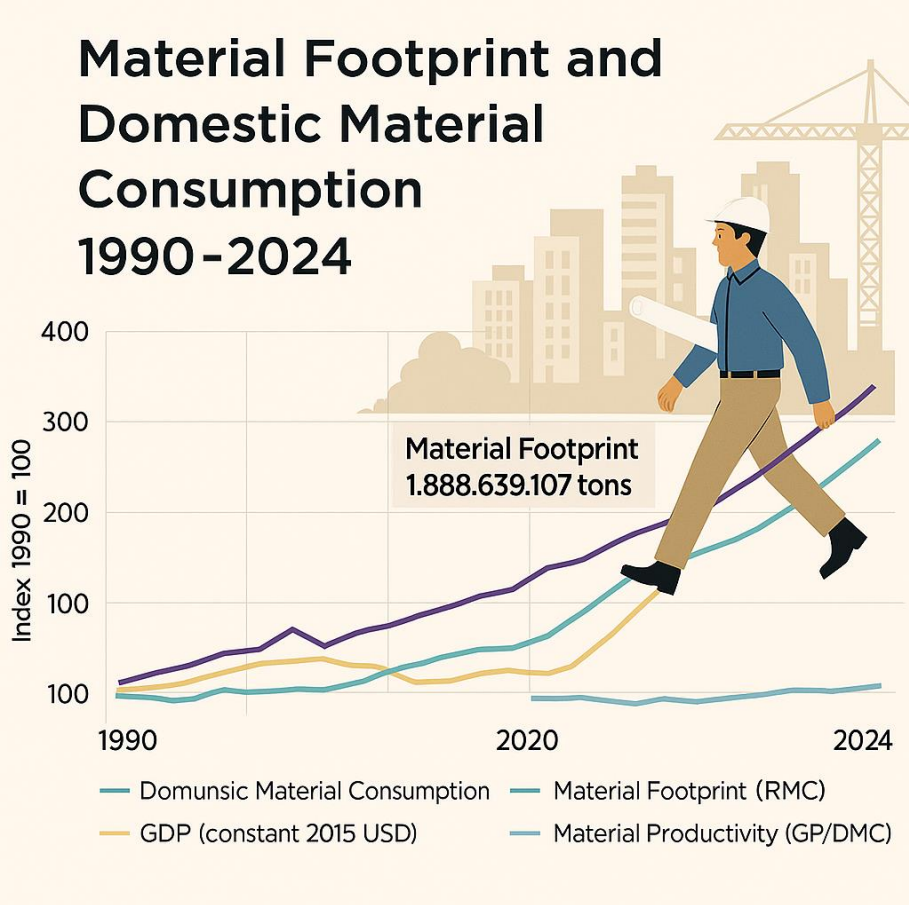


Figure 1.107 Material footprint and domestic material consumption 1990 - 2024
Source: https://www.materialflows.net/material-use-in-indonesia-compiling-a-country-profile/

Green open space

The rules regarding Green Open Space (RTH) in Indonesian cities are regulated nationally through Law Number 26 Year 2007 on Spatial Planning, which mandates that each city is required to provide a minimum of 30% of its total area as RTH, consisting of 20% public RTH and 10% private RTH. This regulation is also confirmed in various derivative regulations such as Government Regulation No. 15/2010 and Minister of Public Works and Housing Regulation No. 5/2008 on guidelines for the provision and utilisation of green spaces in urban areas. RTH plays an important role in maintaining ecosystem balance, reducing the city's heat island effect, and supporting the quality of life of urban communities.

However, based on data from Bappenas and the Ministry of ATR/BPN, until 2020-2024, most cities in Indonesia still do not meet the 30% RTH target. In 2020, only around 12 out of 98 cities met the requirement of 30% RTH, and by 2024, the number slowly increased to around 18 cities. Cities such as Surabaya, Balikpapan, and Bogor stand out as positive examples with more than 30% green space, thanks to pro-environmental local policies and consistency in spatial control. Meanwhile, dense cities such as Jakarta, Medan, and Bekasi are still below 15% RTH, largely due to land constraints and high urbanisation pressure. Nationally, the average urban green space in Indonesia in 2024 was recorded at around 17.5%, indicating a significant gap against the national target and the need for stronger commitment in the provision and protection of green space in urban areas.

In DKI Jakarta, the proportion of RTH has decreased from 33.70% in 2000 to 19.50% in 2020, showing a downward trend that needs attention (Nurfadhil and Zain, 2024). The main cause of this decline is the increasing conversion of RTH land into built-up areas, such as settlements, shopping centres, and other city infrastructure, along with population growth and space requirements in very dense urban areas. Based on STATISTICS INDONESIA data and the DKI Jakarta RTRW, in the last two decades, the rate of building growth has reached more than 1,000 hectares, while the addition of RTH is not balanced with the speed of land conversion. In addition, the weak enforcement of regulations regarding the protection of green spaces and the limited remaining land that can be reused for green spaces also exacerbate the condition. This decline poses a major challenge to the city's climate resilience, considering that green spaces play a vital role in controlling flooding, lowering air temperature, and improving the quality of life for residents.

On the contrary, some cities have successfully increased their proportion of green space. Surabaya City is a positive example with the largest proportion of green space in Indonesia as of 2023, reaching more than 400 thousand, showing commitment in providing green space for its citizens. In Purwokerto City, the projected per capita green space requirement of 20 m² has been met, with a green space availability area in 2020 of 2,737.159 ha, indicating a match between the need and availability of green space (Devi and Santosa, 2022).

Nationally, in 2020, data from 61 cities in Indonesia recorded a total green area of 900.89 km2 (3%) of the total area (29,275 Km2), with a population of 39,863,467 people. In 2024, data from 64 cities showed an increase to 1,618.68 km2, (7%). Urban green area per capita data in Indonesia 2020-2024 increased. The average green area per capita in 2020 was 22.6 m2, to 35.80 m2 / person in 2024.

Since the enactment of the Spatial Planning Law (Law No. 26 Year 2007), attention to the importance of the proportion of green space has increased. However, changes in the calculation methodology and definition of green space have also influenced this proportional data. Previously, RTH was calculated based only on the land area that physically functions as green space, but in a more recent approach, especially after the strengthening of post-2007 policies, elements of water bodies such as rivers, lakes, and boundary lines began to be included as part of RTH, including private RTH. This shift in definition may lead to statistical adjustments, where the apparent declining proportion of green spaces may reflect improvements in classification and more accurate mapping systems, rather than physical degradation of green spaces. However, it still needs to be recognised that the conversion of green land to buildings remains a major factor in the actual decline of green space on the ground.

1.3.2.2 Promote resource conservation and waste reduction, reuse and recycling

The level of recycled material usage in Indonesia has shown a significant increase in recent years. In 2020, the volume of recycled materials was recorded at 11.69 million tonnes, increasing to 18.17 million tonnes by 2023. This increase reflects growing awareness and policies that support the circular economy, including the strengthening of domestic recycling systems and cross-sector partnerships.

The increasing use of recycled materials in Indonesia is supported by a series of strategic regulations and policies issued by the government in order to strengthen the circular economy and sustainable waste management. One of the key regulations is Presidential Regulation No. 97/2017 on National Policy and Strategy for Household Waste Management and Waste Similar to Household Waste, which targets waste reduction by 30% and waste management by 70% by 2025. At the technical level, Minister of Environment and Forestry Regulation No.

P.75 of 2019 on Roadmap for Waste Reduction by Producers requires businesses to reduce waste generation from their products and packaging through redesign, recycling, and return systems. In addition, the government is also strengthening the National Action Plan for Circular Economy 2020-2024, which involves cross-ministries and industry sectors to increase the use value of resources through the principles of *reduce, reuse, recycle* (3R). Fiscal support also comes in the form of tax incentives and ease of investment for the recycling industry. On the supervisory side, strengthening the *Extended Producer Responsibility* (EPR) system encourages producer responsibility in post-production waste management. This combination of policies creates an ecosystem that is conducive to the growth of recycled materials in Indonesia.

The Ministry of Environment and Forestry provides PDU assistance to local governments and communities to support the National Waste Management Programme. The Recycling Centre (PDU) is a facility that functions to process waste into raw materials or energy, with a focus on sorting and handling waste from the source. In 2024, 73,802.77 tonnes/year of waste was managed by 74 PDUs spread across 20 provinces in Indonesia. The waste management methods carried out at these facilities are waste used as raw materials for animal feed, compost raw materials, recycled raw materials, materials for upcycling products (used goods that are converted into high-value goods) and raw materials for energy sources.

1.3.2.3 Implementation of environmentally sound management of aquatic resources and coastal areas

Many cities around the world are located in coastal areas, delta areas and islands. These cities are particularly vulnerable to hurricanes/cyclones, flooding, land subsidence and sea level rise (NUA §64). Safeguarding protected areas in coastal areas is essential to slow the decline of biodiversity and ensure the sustainable use of marine natural resources. To achieve this goal, national governments need to have and enforce effective coastal land management plans, which can reduce the impact of coastal hazards.

Law No. 26 Year 2007 on Spatial Planning is the main legal foundation that mandates spatial planning, utilisation, and control in Indonesia in order to create a safe, comfortable, productive, and sustainable national territory, which is then implemented through a hierarchy of spatial plans, starting from the National Spatial Plan (RTRWN) as the highest reference, Provincial Spatial Plans (RTRWP), Regency / City Spatial Plans (RTRWKab / City), to Detailed Spatial Plans (RDTR). Furthermore, Indonesia has the RTRWN as a national spatial planning document that serves as a reference for the lower levels, including in the preparation of the Island / Archipelago Spatial Plan (RTR Island / Archipelago) which specifically regulates spatial management in the island / archipelago area, including policy direction on the boundaries of various water sources and establishing areas of marine economic potential along with the utilisation of marine resources. The RTR Pulau/Kepulauan, which has a validity period of 20 years with a minimum review every 5 years and is ratified through a Presidential Regulation (currently there are 7 Perpres), serves as a tool for coordination, synchronisation and control of spatial utilisation. The main difference between the Island/Island Spatial Plan (RTR Pulau/Kepulauan) and the Provincial Spatial Plan (RTRW Provinsi) lies in the scope of the planning area, where the RTR Pulau/Kepulauan covers large islands or nationally strategic islands and is cross-provincial, while the RTRW Provinsi covers the administrative area of a province. In addition, the depth of regulation is also different, where the Island / Archipelago RTR is a detailed plan elaborating the RTRWN for the island / archipelago, while the Provincial RTRW elaborates the RTRWN into a more specific plan for the province.

1.3.2.4 Adopt a smart city approach that leverages digitalisation, clean energy and technology

Sustainable management of natural resources at the city and household level can be measured through indicators of energy efficiency and optimisation of transport infrastructure. The first indicator, the percentage reduction in annual final energy consumption at home through *smart monitoring* systems, shows how technology can be used to control energy use in *real time*, encourage energy-saving behaviour and reduce pressure on fossil energy resources. The higher the percentage reduction, the more effective households are in contributing to national energy efficiency. The second indicator, the share of intersections with traffic lights connected to the traffic management system, reflects the city's ability to efficiently manage the flow of vehicles through technology-based systems. This integration not only reduces congestion and fuel consumption, but also plays a role in lowering carbon emissions. These two indicators emphasise the importance of utilising digital technology in creating smart, efficient and environmentally friendly urban systems, as well as being an important element in sustainable natural resource management strategies.

Household energy consumption

Based on data from the Ministry of Energy and Mineral Resources (2023), there are changes in household energy consumption in Indonesia from 2013 to 2023 by energy type. During this period, there was a drastic decrease in the use of traditional energy such as biomass, from 21,553 thousand tonnes in 2013 to only 6,682 thousand tonnes in 2023. This shows the successful transition of household energy towards more modern and cleaner energy sources. In contrast, electricity consumption increased rapidly from 77,211 GWh in 2013 to 122,824 GWh in 2023, reflecting widespread electrification in the household sector. Gas usage, measured in MMSCF (*Million Standard Cubic Feet*), shows a significant upward trend, from just 215 MMSCF in 2013 jumping to 5,862 MMSCF in 2023.

Consumption of LPG as the main energy substitute for kerosene experienced steady growth, increasing from 5,377 thousand tonnes in 2013 to 8,353 thousand tonnes in 2023. On the other hand, kerosene (kerosene) experienced a sharp decline from 1,079,100 kilo litres in 2013 to only 430,745 kilo litres in 2023, in line with the household energy conversion programme. BioGas, which has only been recorded since 2015, also shows a remarkable increase, from 18,953 thousand m^3 in 2015 to 110,792 thousand m^3 in 2023, reflecting renewable energy innovation at the household level. Overall, this data shows the policy direction and successful implementation of household energy transition from traditional and fossil fuels to modern, clean, and sustainable energy, which is in line with efforts to mitigate climate change and improve people's quality of life.

In Indonesia, energy conservation efforts have been regulated through various regulations that aim to encourage energy efficiency, reduce emissions, and ensure national energy security. One of the main regulations is Law No. 30/2007 on Energy, which is the legal basis for sustainable energy management and requires energy conservation in all sectors. Then, Government Regulation (PP) No. 33 of 2023 on Energy Conservation regulates the obligation to use energy efficiently, including the household sector. This PP covers two main aspects, namely energy conservation on the upstream and downstream sides. On the upstream side, conservation is carried out by preserving energy resources through sustainable management. Meanwhile, on the downstream side, the focus is on improving energy efficiency through the implementation of energy-saving behaviours and more efficient technologies. Central and local governments are required to implement energy conservation in the operations of their respective agencies, while energy providers are also obliged to implement conservation efforts in their supply processes. A certain number of energy users are required to implement conservation measures to reduce excessive energy consumption...

Measurably, the impact of this energy conservation policy is starting to show. According to data from the Ministry of Energy and Mineral Resources, the national energy conservation programme has reduced energy intensity by 1.5% per year since 2015, and by 2022 is estimated to have saved around 28 million tonnes of oil equivalent (MTOE) of energy. In addition, energy efficiency in the industrial sector also recorded a 10-25% reduction in specific energy consumption in several subsectors such as cement, textiles, and food and beverages, thanks to the implementation of energy-efficient technologies and regular energy audits. In the building sector, the use of energy-efficient devices such as LED lights, efficient cooling systems, and digital-based energy management has provided operational cost savings of up to 30%. Indonesian National Standard (SNI) for Energy Efficient Electronic Equipment. The government requires certain electronic products, such as air conditioners and refrigerators, to have an energy efficiency label. With these regulations, energy conservation not only provides economic benefits, but also supports the achievement of Indonesia's greenhouse gas emission reduction target, as stated in the *Nationally Determined Contribution* (NDC) commitment.

Road junctions with traffic lights connected to the traffic management system

Minister of Transportation Regulation No. 76/2021 on Smart Transportation Management System (SMTC) is a regulation that governs the utilisation of information and communication technology in the implementation of national transportation. The main objectives of this regulation are to improve traffic efficiency, ensure transportation safety and security, reduce environmental impacts, and improve connectivity between transportation modes. It also encourages the use of digital technology and big data in transport management, both by the government and the private sector.

The SMTC in this regulation covers various aspects such as traffic management (e.g. intelligent traffic light settings and real-time traffic information), public transport management (including integrated schedules and routes), user information systems (such as mobile apps and street information panels), incident and emergency management, vehicle and driver management (such as e-toll systems and vehicle tracking), and intermodal electronic payment systems.

The SMTC is built on three main components: system architecture, supporting infrastructure, and operational institutions. System architecture refers to the technical framework that governs connectivity between devices and data, while infrastructure includes road facilities, sensors, cameras, and data centres. The SMTC's implementing institutions consist of the central government, local governments, and the private sector, with their respective responsibilities organised in detail.

The Ministry of Transport acts as the national coordinator, while local governments tailor the implementation to the needs of the region. The private sector can also participate through cooperation schemes. All SMTC implementations must be guided by national standards, guarantee the protection of personal data, and ensure interoperable systems between modes and regions. Some examples of SMTC implementation in Indonesia include smart transport systems in Jakarta, Surabaya, and Bandung, which have adopted technology to manage traffic, public transport, and digital payment systems in an integrated manner.

The number of cities in Indonesia that have implemented *Area Traffic Control System* (ATCS) is increasing, from 49 cities in 2020 to 53 cities in 2024. The implementation of ATCS and *Intelligent Transport System* (ITS) in various cities in Indonesia has shown significant measurable benefits in reducing congestion, improving safety, and energy efficiency. Based on data from the Directorate General of Land Transportation (2022), the implementation of ATCS in cities such as Bandung, Semarang, and Surabaya can reduce vehicle waiting time at intersections by 15-25%. In Yogyakarta, the average vehicle speed increased from 18 km/h

to 24 km/h after the implementation of ATCS during peak hours. While in Jakarta, the integration of the system with the Jakarta Smart City control centre has improved traffic efficiency by up to 30% in several key corridors.

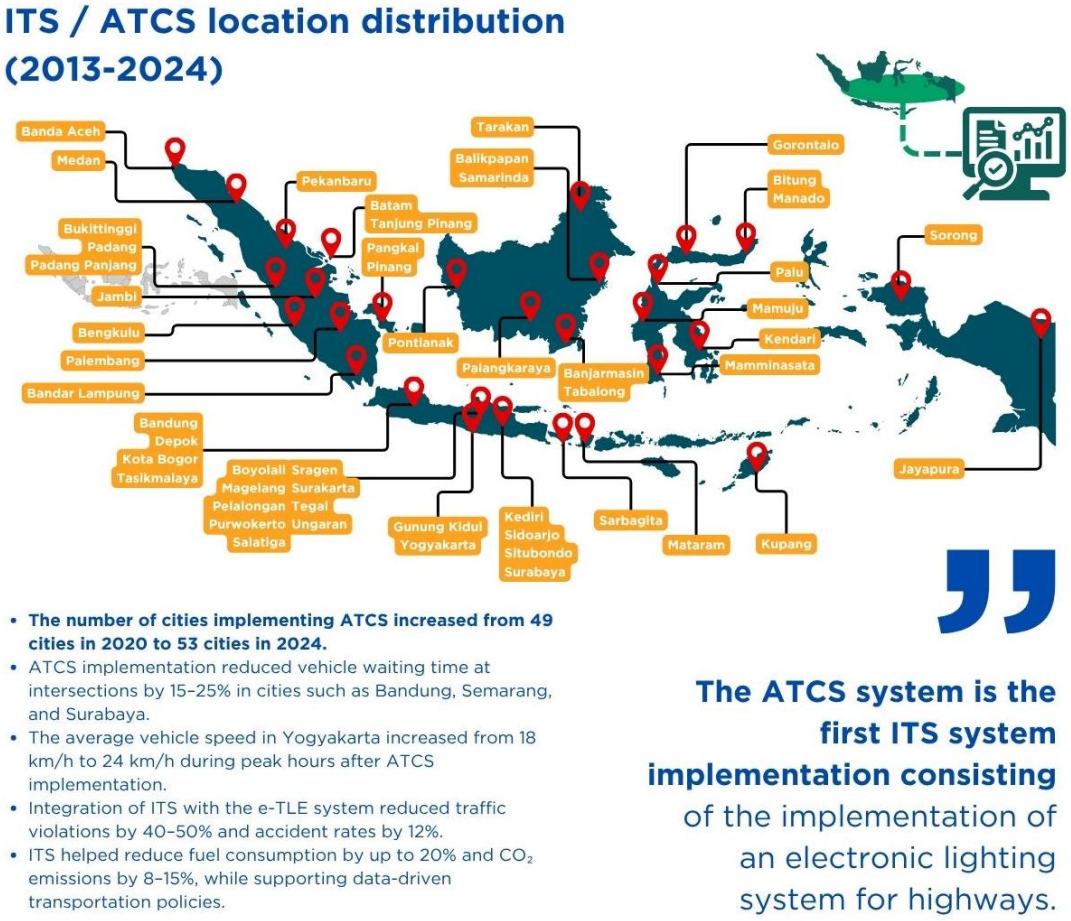


Figure 1.108 ITS / ATCS location distribution (2013-2024)
Source: Ministry of Transport, 2025

In terms of safety, the implementation of ITS integrated with the e-TLE (*Electronic Traffic Law Enforcement*) system in Jakarta, Surabaya, and Semarang showed a 40-50% reduction in traffic violations in the first six months. Data from the Indonesian National Police Traffic Corps also recorded a 12% reduction in traffic accidents in areas that have implemented sensor- and camera-based traffic monitoring technology. In terms of the environment and energy efficiency, ITS helps reduce vehicle fuel consumption by up to 20% due to reduced vehicle downtime at intersections. In Surabaya City, the technology even contributed to an 8-15% reduction in carbon dioxide emissions during peak hours in the trial area.

In addition to the direct benefits on the ground, ITS also contributes greatly to the collection of real-time traffic data, which greatly assists local governments in transport planning. Cities such as Bandung and Makassar utilise ITS data to re-route public transport and organise transport nodes based on real needs. The system encourages *evidence-based* transport *policy*, making it more targeted and efficient to implement. With these proven benefits, ITS and ATCS are important pillars in modernising Indonesia's transport system towards smart and sustainable cities.

Part 2 Effective Implementation

2.1 Establish a Governance Structure: Establishing a Supportive Framework

Since the reformation in 1998, Indonesia has implemented a broad decentralisation policy as a strategic step in promoting governance reform. Decentralisation is defined as the delegation of some authority from the central government to local governments, both at the provincial and district/city levels, in order to administer government affairs, development, and public services. This policy aims to improve government efficiency, strengthen local democracy, and bring services closer to the community in accordance with local needs and contexts.

In the context of the New Urban Agenda, decentralisation is a critical component in building inclusive and effective governance structures. Since the adoption of the NUA in 2016, Indonesia has made progress in strengthening the capacity of local governments to fulfil their responsibilities independently and effectively. Some of the NUA principles that explicitly emphasise the importance of decentralisation include: paragraph 89 that encourages the devolution of authority to local and subnational governments through clear legal and institutional frameworks; paragraph 90 that supports enhancing the fiscal capacity of local governments through fiscal decentralisation and strengthening local revenues; and paragraph 91 that promotes participatory, transparent and accountable governance at the local level.

Nationally, the principles of decentralisation have been regulated in various legal instruments. Article 18 of the 1945 Constitution is the constitutional basis for regional division and autonomy. This provision is strengthened by Law No. 23/2014 on Regional Government which replaces Law No. 32/2004 and Law No. 22/1999, as well as Law No. 33/2004 on Financial Balance between the Central Government and Regional Governments. These regulations provide the legal basis and institutional structure for the implementation of decentralisation, and strengthen the fiscal and administrative capacity of local governments in implementing government affairs.

Since 2016, various steps have been taken to strengthen NUA implementation through a decentralised approach. The central government continues to encourage the strengthening of local government capacity in urban development planning and budgeting, including the integration of multi-level governance approaches between the centre and regions. Local governments are also encouraged to access various financing mechanisms through the General Allocation Fund (DAU), Special Allocation Fund (DAK), and Regional Incentive Fund (DID), to support the implementation of inclusive and sustainable urban development policies.

In addition, local governments have begun to implement participatory and age- and gender-responsive approaches, for example through the active involvement of communities, women and vulnerable groups in development planning processes such as the Development Planning Consultation (Musrenbang) at various regional levels. The government also continues to strengthen the legal and policy framework, including harmonisation between national and regional planning and the implementation of digital-based information systems such as SIPD to improve transparency, accountability and efficiency of regional governance.

Indonesia's decentralisation policy has provided greater space for local governments to play a strategic role in the implementation of the New Urban Agenda. With institutional, fiscal, and public participation support, local governments increasingly have the capacity to develop

urban policies that are responsive and contextualised, while encouraging the achievement of inclusive, equitable, and sustainable urban development.

2.1.1 Decentralisation to enable local governments to discharge their responsibilities

Adherence to the rule of law in local government management is a prerequisite for efficient management practices. As mentioned above, the New Urban Agenda calls for paragraph 90: Enhancing the financial capacity of local governments through fiscal decentralisation and strengthening local revenues. Decentralisation has been enacted through several supporting regulations to enable greater autonomy for local governments to manage their own financial resources. The enactment of Law No. 32/2004, for example, was preceded by the enactment of Law No. 17/2003 on State Finance. Article 10 of Law No. 17/2003 specifically states that "regional financial management powers are exercised by the head of the regional financial management work unit, as the APBD management official", and Article 22 of this law even authorises regional governments to "grant and receive loans from other regions, with the approval of the DPRD". Both of these demonstrate the commitment of the government of the time to the decentralisation process, by giving more flexibility to local governments to manage their own finances, and even explore other sources of funding.

Law No. 23/2014 on Regional Government provides a comprehensive update of Law No. 32/2004 and brings significant changes in the framework of the relationship between the central and regional governments. One important update is the strengthening of the role of the province as the representative of the central government in the region, as well as the restructuring of district/city authority, particularly in areas such as secondary education, forestry, energy, and marine affairs, most of which were recalled to provincial affairs. The law also emphasises strengthening the accountability of regional heads through oversight mechanisms by the DPRD, performance evaluation by the central government, and the implementation of a merit system in regional ASN management. Regulations on *mandatory spending* strengthen the legal position and responsibility of local governments in allocating budgets in a fair and prioritised manner. Some examples of *mandatory spending* include the education budget, which must be allocated at least 20% of the total APBD, as mandated by the 1945 Constitution Article 31 paragraph (4) and Law No. 20/2003. In addition, the health budget is set at a minimum of 10% of the APBD excluding salaries, in accordance with Law No. 36/2009 and infrastructure spending, through the General Transfer Fund (DTU), is directed at a minimum of 25% to accelerate development and reduce poverty levels.

These provisions strengthen regional fiscal accountability and ensure that the autonomy granted through decentralisation is not merely symbolic, but also has a real impact on equitable development and improving the quality of life of the people. Thus, decentralisation is not merely a devolution of administrative authority, but rather a strategic framework that enables regions to act as self-governing entities in designing, managing and being accountable for development in their regions. Consistent enforcement of the rule of law in regional financial management, supported by *mandatory spending* regulations, is the main foundation in realising responsive, inclusive and social justice-oriented regional governance.

2.1.2 Link between urban policies to financial mechanisms and budgets

Trends in the fiscal capacity of city and district governments in Indonesia over the 2020-2024 period show significant dynamics, reflecting differences in financial capability between regions. Regional fiscal capacity refers to a region's ability to generate its own revenue, mainly through own-source revenues (PAD), compared to dependence on transfers from the central government.

According to Minister of Finance Regulation (PMK) Number 65 of 2024 on Regional Fiscal Capacity Map, which was later updated by PMK Number 127 of 2024, regional fiscal capacity is categorised into three groups: strong, medium, and weak. These categories are determined based on the ratio of regional own-source revenue to total regional revenue. Regions with higher PAD than central transfers are categorised as having strong fiscal capacity. Conversely, regions that rely heavily on central transfers are categorised as having weak fiscal capacity.

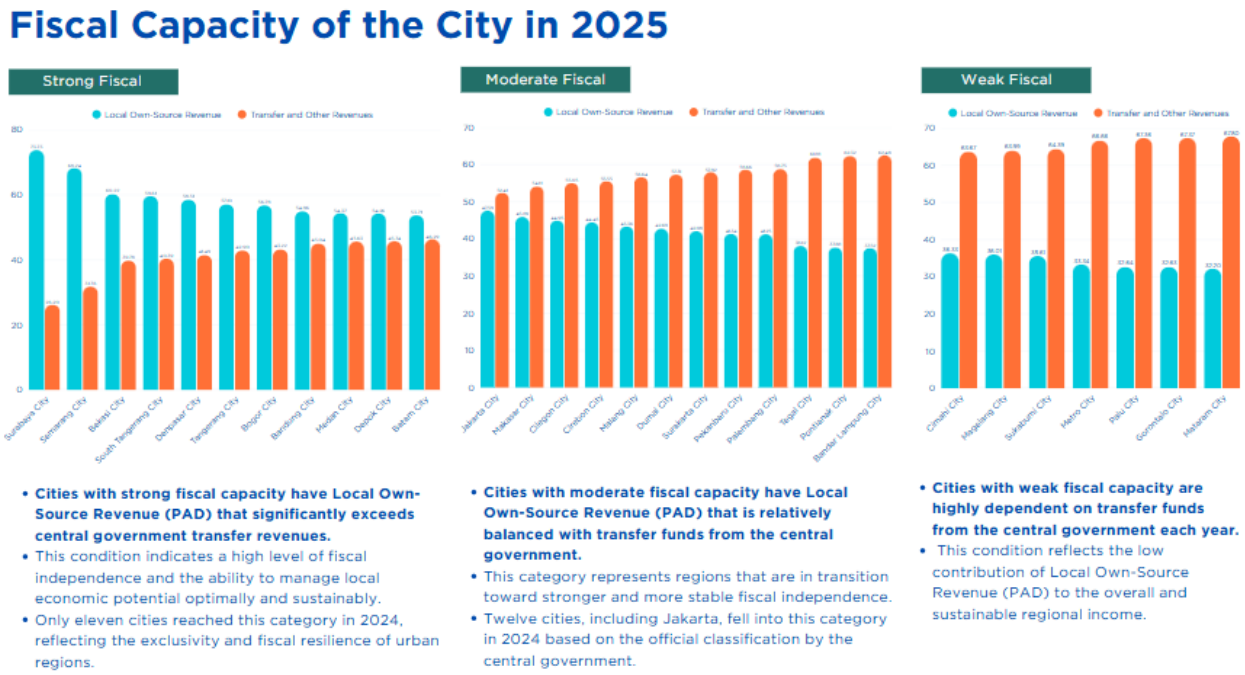


Figure 2. 1 Fiscal Capacity of the City in 2025
Source: Ministry of Home Affairs, 2025

For example, in 2024, out of 93 cities in Indonesia, only six cities fall into the strong fiscal capacity category, where their own-source revenue (PAD) is higher than the transfer revenue from the central government. Eleven cities, including Depok City, are categorised as having medium fiscal capacity, characterised by balanced PAD and central transfers. Meanwhile, the majority, 76 cities, are still in the weak fiscal capacity category, showing a high dependency on transfer funds from the central government. By 2025, however, this fiscal capacity increases until there are 11 cities/districts with strong fiscal capacity, namely Surabaya, Semarang, Bekasi, South Tangerang, Denpasar, Tangerang, Bogor, Bandung, Medan, Depok, Batam.

These differences in fiscal capacity have a direct impact on the ability of regions to design and implement development programmes. Regions with strong fiscal capacity have more flexibility in budget management, allowing them to invest in strategic projects and improve public services. In contrast, regions with weak fiscal capacity face limitations in financing development, which can affect the quality of public services and public welfare.

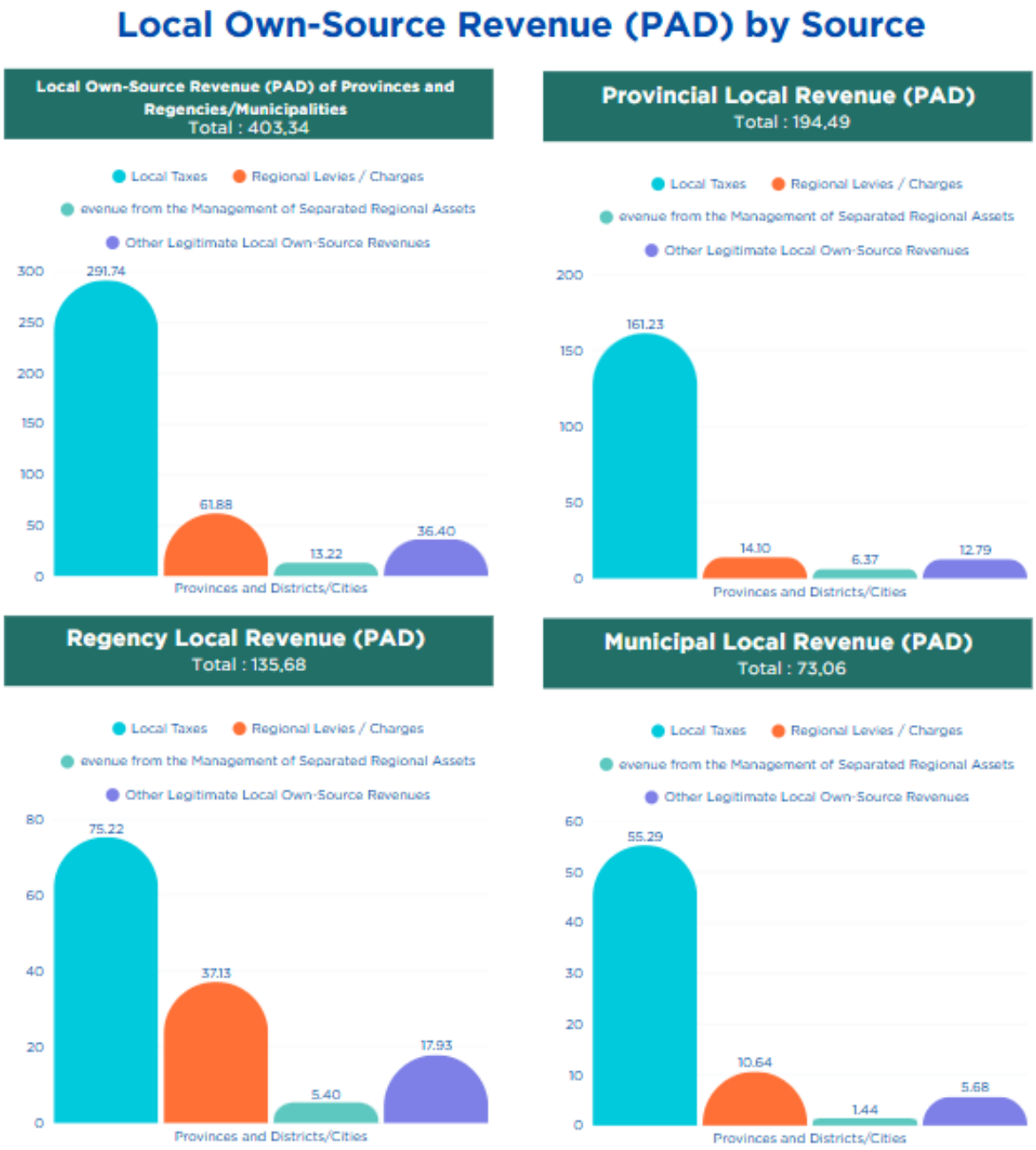


Figure 2.2 PAD by revenue source (2024)
Source: Ministry of Home Affairs, 2025

To address this disparity, the central government through the Ministry of Finance continues to evaluate and adjust fiscal policies, including the distribution of transfer funds and strengthening regional fiscal capacity. This effort aims to encourage regional fiscal independence and ensure equitable development throughout Indonesia.

Original Local Government Revenue or *Pendapatan Asli Daerah* (PAD) is one measure of the independence of a region. The main sources of PAD include local taxes, local levies, the results of the management of separated regional assets, and other legal sources. Local taxes are compulsory contributions paid by individuals or entities to local governments based on statutory provisions, are coercive, do not provide direct rewards to the payer, and are used to the greatest extent for the welfare of the community, as stipulated in Law Number 28 of 2009 concerning Local Taxes and Levies. Meanwhile, local retribution is a levy on certain services or licences provided or granted by the local government for the benefit of individuals or entities.

In addition, PAD also comes from the results of the management of separated regional assets, the determination of which is made through Regional Regulations with reference to applicable laws and regulations. Other components of legal PAD include proceeds from the sale and utilisation of non-separated local assets, current account services, interest income, compensation claims, gains from currency exchange rate differences, as well as commissions, deductions, and other forms of procurement or sale of goods and services by local governments. All of these elements reflect the fiscal potential of a region in financing development independently.

Figure 2.3 Local Revenue by category
Source: Ministry of Home Affairs, 2025

As revenue obtained by the regions that is levied based on local regulations in accordance with laws and regulations, PAD aims to provide authority to local governments to fund the implementation of regional autonomy in accordance with regional potential. PAD is not only a source of revenue, but also an important instrument for realising sustainable, inclusive, and safe cities in accordance with the vision of the New Urban Agenda. The New Urban Agenda emphasises sustainable urban infrastructure development. PAD enables local governments to finance projects such as public transport, waste management, and clean water provision, creating inclusive and safe cities. Adequate local revenue allows local governments to improve

the quality of public services, such as education, health, and green open spaces. PAD derived from local taxes and levies can be used to support local economic development, such as the development of MSMEs and the tourism sector. This is in line with the goal of the New Urban Agenda to create jobs and reduce poverty. The New Urban Agenda also emphasises the importance of managing the urban environment. PAD can be used to finance environmental management programmes, such as pollution control and natural resource conservation. Adequate own-source revenues can increase local fiscal independence. With strong fiscal independence, regions can realise good governance, which is one of the important aspects in achieving the objectives of the New Urban Agenda.

Increased PAD allows local governments to be more independent in funding programmes that support the achievement of NUA and SDGs. In the context of regional autonomy, high PAD allows regions to develop policies and programmes that meet local needs without relying too heavily on funds from the central government. Increasing own-source revenue is therefore not just about local finance, but also about ensuring that local development can contribute directly to the achievement of broader, sustainable development goals.

2.1.3 Develop legal and policy frameworks to improve government capacity to implement urban policies

In order to strengthen urban development, the Government of Indonesia has issued Government Regulation No. 59 Year 2022 on Cities as a key regulation in strengthening the governance of urban areas nationwide. This regulation thoroughly regulates aspects of urban management, from the form and classification of cities to the implementation and funding mechanisms. In terms of form and classification, the regulation distinguishes cities based on administrative status such as administrative cities, autonomous cities, or non-administrative urban areas and classifies them based on population, dominance of economic functions (such as industrial, trade, or service cities), geographical conditions (such as coastal or upland cities), and their strategic role in regional networks. Furthermore, the implementation of urban management in this regulation includes three main stages, namely planning, implementation, and control. Planning involves the preparation of strategic documents such as the General Spatial Plan (RUTR) and Detailed Spatial Plan (RTR), which serve as references in spatial planning and regional development. The implementation stage includes concrete activities according to the plan, while control focuses on supervision so that implementation is in line with the plan, as well as setting incentives, disincentives, and sanctions to ensure compliance.

In terms of financing, this regulation also contains arrangements regarding funding sources that can be used by the central government, local governments, and cooperation with third parties, including through creative schemes such as Government Cooperation with Business Entities (PPP) or performance-based transfer funds. With this framework, Government Regualtion No. 59 Year 2022 aims to create a more comprehensive, adaptive, and efficient urban management system, and encourage local governments to be more focused and consistent in responding to the challenges of urbanisation and regional growth. This regulation also strengthens the position of local governments in accessing fiscal resources and cross-sectoral authority, so that urban policies can be implemented more effectively and sustainably.

2.1.4 Strengthen the capacity of subnational and local governments to implement multilevel governance at the local and metropolitan levels.

The Government Agency Performance Accountability System (SAKIP) and the Government Agency Performance Accountability Report (LAKIP) are important instruments in the Indonesian government system aimed at increasing transparency and accountability of the performance of the state apparatus. Both are a form of accountability for the achievement of goals and objectives that have been formulated in the strategic planning documents of each

government agency. The implementation of SAKIP and LAKIP is based on various regulations, such as Law No. 17 of 2003 concerning State Finance, Law No. 25 of 2004 concerning the National Development Planning System, Law No. 23 of 2014 concerning Regional Government, as well as PP No. 8 of 2006 and PP No. 29 of 2014. The technical guidelines for implementation are regulated through Minister of State Apparatus Utilization and Bureaucratic Reform (PAN-RB) Regulation Number 53 of 2014 concerning Technical Guidelines for Performance Agreements, Performance Reporting, and Procedures for Reviewing Performance Reports of Government Agencies.

SAKIP consists of five main stages, starting with Performance Planning, namely the preparation of vision, mission, goals, and strategic objectives along with their indicators, which are contained in the Strategic Plan (Renstra) and Annual Performance Plan (RKT), and followed by the signing of the Performance Agreement (PK). Next is Performance Measurement, which is carried out based on predetermined indicators. The next stage is Performance Reporting, where each agency is required to prepare periodic reports as outlined in the LAKIP document. Performance Evaluation is carried out by supervisory institutions such as the Inspectorate, the Ministry of PAN-RB, and Financial and Development Supervisory Board (BPKP). Finally, through the Performance Improvement stage, evaluation results are used to refine future strategies and policies.

LAKIP as the final product of SAKIP implementation contains various important information, including performance achievements compared to predetermined targets, analysis of the effectiveness of programs and activities in supporting the achievement of organisational goals, and recommendations for strategic policy improvements for the next fiscal year. With the implementation of SAKIP and the preparation of good LAKIP, it is expected that government agencies can carry out their duties efficiently, transparently, and responsibly to the public.

SAKIP management and monitoring involves a number of strategic institutions at the national and regional levels. The Ministry of Administrative Reform and Bureaucratic Reform (Kemenpan-RB) plays a major role in directing the implementation of SAKIP by providing guidelines, regulations, as well as evaluating and providing recommendations for improvements to the performance of government agencies. The Ministry of Home Affairs (MoHA) plays a role in overseeing the implementation of SAKIP at the local government level and ensuring alignment between planning documents such as RPJMD and RKPD with SAKIP principles.

Furthermore, the Ministry of Finance (MoF) integrates SAKIP implementation with performance-based budget management and monitors the effectiveness of budget utilisation by government agencies. The BPKP provides technical assistance and conducts internal audits to ensure the implementation of SAKIP is optimal. The Supreme Audit Agency (BPK) participates by auditing agency financial and performance reports, and assessing the effectiveness of SAKIP in supporting budget efficiency.

In addition, internal supervision at the agency level is carried out by the inspectorates of each institution and region, which provide evaluations and recommendations for improving the performance accountability system. The State Administration Institute (LAN) also has an important role in strengthening the capacity of the apparatus through training and technical guidance, as well as conducting research and policy development related to bureaucratic reform. With the involvement of these various institutions, SAKIP implementation is expected to run consistently, accountably, and be able to improve bureaucratic performance at all levels of government.

2.1.5 Promote participatory, age- and gender-responsive approaches to urban policy and planning

In Indonesia, urban planning and management forums, such as the Development Planning Consultation (Musrenbang) and the Housing and Settlement Area Development Forum (Forum PKP), are important mechanisms in the local development planning process. Musrenbang is conducted in stages from the village level to the national level, involving community and stakeholder participation to formulate development priorities. The PKP Forum, on the other hand, is a forum for coordination between agencies and stakeholders in handling slums and adequate housing.

While specific data on the number of cities and districts with urban planning and management forums such as Musrenbang and Forum PKP are not publicly available, some information can provide insight. For example, in Central Java Province, there are 15 districts/cities that have a decree establishing a PKP Forum as of September 2021. In addition, the city of Banda Aceh has also established a PKP Forum in 2021.

2.1.6 Promote the full participation of women in all areas and at all levels of decision-making

Equal participation in decision-making is a key component in realising inclusive and sustainable governance of cities and regions. The importance of strengthening institutions and governance mechanisms that guarantee the right of every group to participate fully in political, economic, and social life is one of the NUA's key principles "*Leave No One Behind*," which requires member states, including Indonesia, to ensure the representation of vulnerable groups in decision-making including women, youth, people with disabilities, and indigenous groups.

In the national context, Indonesia has demonstrated its commitment to this principle with various affirmative policies. Regulations such as Law No. 2 Year 2011 on Political Parties Law No. 7 Year 2017 on General Elections requires political parties to include at least 30% female representation in the list of legislative candidates. The results of the 2024 Legislative Elections show that out of 580 seats in the House of Representatives, only 128 are filled by women, equivalent to 22.1% This shows an increase from data based on data from the Central Statistics Agency (2023), women occupy 20.87% of seats in the House of Representatives and 30.88% of seats in provincial and district / city DPRDs. Although this figure is still below the 30% target for the national level, this achievement reflects an improvement in women's political representation, especially in the regions.

The proportion of women who occupy managerial positions in Indonesia has shown a significant upward trend in recent years. Based on data from the Statistics Indonesia (BPS), in 2015 the proportion of women in managerial positions was recorded at 22.32%. This figure increased to 32.26% in 2022. However, in 2023, the proportion decreased slightly to 32.16%. Although there was a slight decrease compared to the previous year, the figure still reflects significant progress when compared to the condition in 2015. In the government sector, the proportion of women in managerial positions is even higher, reaching 35.02% in 2023. This increase shows that there are ongoing efforts to strengthen gender equality in the world of work, although various challenges such as inequality in domestic roles, gender bias, and limited access to leadership opportunities are still obstacles that must be overcome.

In the bureaucratic sector, women's involvement also shows a positive trend. Data from the National Civil Service Agency (BKN) for the first semester of 2024 noted that of the total 4,758,730 State Civil Apparatus (ASN), women accounted for around 57%. Although the

number of female ASNs is superior to men, it does not rule out the possibility that those who fill structural positions such as leaders, heads of departments or directors, are still dominated by men. Women fill more functional positions such as in health, education, and administration. This shows that numerical equality is not yet fully reflected in the bureaucratic power structure. This is related to various challenges, including gender stereotypes, lack of systemic support for women in their careers, and lack of access to gender-based leadership training.

In the judiciary, the proportion of female judges also continues to increase. Based on data from the Supreme Court, the number of female judges is 2,211 out of a total of 7,729 judges throughout Indonesia or approximately 29% . However, only about 24% of them occupy court leadership positions. The Indonesian Women Judges Association (BPHPI) aims to increase women's leadership positions in the courts to 29% in the future. Women's representation in judicial decision-making is crucial to ensure a gender perspective is present in the judicial process, especially in cases involving gender-based violence and the protection of women's and children's rights.

Meanwhile, the representation of young people and people with disabilities in decision-making institutions remains low. Only around 4% of members of the House of Representatives for the 2019-2024 period are under the age of 30, despite this group comprising more than 25% of the national population. The involvement of people with disabilities in legislative, executive and judicial institutions is also still very limited, despite their rights being recognised in Law No. 8/2016 on Persons with Disabilities. Key challenges include physical and digital accessibility, non-inclusive recruitment processes, and limited institutional support.

Representation of indigenous and minority groups has not been fully accommodated in formal government structures. In some regions, indigenous representation still relies on local deliberation mechanisms that have not been systematically integrated into the national democratic system. Yet, equitable social inclusion of indigenous groups is part of Indonesia's constitutional mandate and international commitments in realising rights-based governance.

To address these inequalities, the government has established a number of policies and initiatives. In addition to quota provisions in elections, policies such as Minister of PANRB Regulation No. 7 of 2022 on Work Systems and Presidential Regulation No. 21 of 2023 on Working Days and Hours are designed to increase flexibility and support women's participation in the workforce, including at managerial levels. The government has also begun to apply *Gender Equality and Social Inclusion* (GESI) indicators in development planning and evaluation and encourage gender-based leadership training in the public sector. However, the effectiveness of affirmative policy implementation still needs strengthening. Many policies are administrative in nature without fundamental changes in power structures, organisational culture and decision-making processes. Therefore, strategic steps that need to be taken include: (1) strictly enforcing affirmative monitoring and evaluation mechanisms; (2) strengthening disaggregated databases based on gender, age, disability, and social origin; and (3) increasing collaboration with civil society, academics, and local communities to encourage institutional reform from below. By ensuring that public institutions truly reflect the diversity of society, Indonesia is not only fulfilling its constitutional obligations and global commitments, but also strengthening the foundations of participatory democracy to realise inclusive, safe, resilient and sustainable cities and regions for all.

2.2 Urban Spatial Development Planning and Management

2.2.1 Implementation of integrated and balanced regional development policies

An integrated and balanced regional development policy aims to ensure that economic, social, and infrastructure growth occurs thoroughly and equitably across all regions, both urban and rural, without creating sharp disparities. For this policy to be effective and accountable, it needs to be supported by a transparent, inclusive and participatory spatial planning and design system. This is where the importance of public accessibility to spatial plans and designs online comes in. When development planning documents, such as the Regional Spatial Plan (RTRW), Detailed Spatial Plan (RDTR), or regional development plans are openly available and can be consulted at any time, the public has the opportunity to understand the direction of development, provide input, and oversee its implementation. This promotes more responsive development governance, prevents land conflicts and overlapping policies, and strengthens public trust in the government. Thus, open data and publicly accessible planning are not only instruments of transparency, but also key elements in ensuring that regional development is truly balanced, inclusive and in line with community needs.

The Regional Spatial Plan (RTRW) and Detailed Spatial Plan (RDTR) maps available online through the GISTARU (*Geographic Information System* Tata Ruang) system have undergone significant development between 2021 and 2024. As part of the government's efforts to improve transparency and accessibility of spatial information, GISTARU allows the public and stakeholders to access spatial documents and maps online.

According to data as of 6 March 2024, out of 38 provinces in Indonesia, 34 provinces already have Provincial Spatial Plans (RTRW), 415 District RTRW, and 93 City RTRW. In addition, there are 431 District/City RDTRs, with 9 National Priority Area (KPN) RDTR Planning Areas (WP), and 9 Nusantara Capital City (IKN) RDTRs. This data shows a significant increase in the availability of spatial documents that can be accessed online, although there are still challenges in terms of data uniformity and quality between regions.

One example of GISTARU implementation is in Banten Province, where the Banten Provincial Public Works and Spatial Planning Office has carried out digital transformation through the Banten GISTARU system. This system allows the public to access spatial plan product information and can be accessed through the website https://gistaru.bantenprov.go.id/ . In addition, updates and additions to District and City RTRW maps were also carried out, such as in Serang City, Tangerang City, South Tangerang City, Cilegon City, Pandeglang Regency, Lebak Regency, Tangerang Regency, and Serang Regency.

Despite the progress, challenges in the implementation of GISTARU still exist, such as data uniformity between regions and limited access in remote areas. However, with the government's commitment and technological support, it is expected that the GISTARU system can continue to grow and provide maximum benefits for the community in accessing spatial information in a transparent and accurate manner.

2.2.2 Integrate housing into urban development plans

Indonesia is strongly committed to advancing housing policies at all levels of national, subnational and local government in order to ensure that every citizen has access to decent,

safe and affordable housing. This is in line with global commitments in the *New Urban Agenda* (NUA §31) which emphasises the importance of adequate housing provision as part of the right to an adequate standard of living (NUA §31). When people live in adequate housing that fulfils the requirements of building durability, space adequacy, adequate sanitation and drinking water, and affordability, it creates the foundation for improved health, educational participation, and skills development. Decent housing not only provides shelter, but is also a starting point for improving the social and economic welfare of families. On the other hand, investments in the housing sector have significant economy-wide impacts. Housing construction and renovation stimulates various sectors of the economy, including the building materials, construction, logistics and professional services industries. This process creates new jobs, both direct and indirect, and increases people's purchasing power through multiplier effects. Therefore, housing development is not just a social policy, but also an economic growth strategy.

Data on the percentage of households with access to decent and affordable housing in 2021-2024, as well as the provinces with the highest levels of slum households, have been presented in section 1.1.2.4. Despite a significant reduction in the number of slums, the provision of affordable housing remains a major challenge for Indonesia. Nevertheless, various stakeholders, including the central government, local/municipal governments, housing developers, and many others continue to make great efforts to eliminate slums from Indonesia and create prosperity for all. The government, through the Ministry of Public Works and Housing (KemenPUPR), continues to implement the one million houses programme in the period 2020-2025. This programme is in line with the 100-0-100 programme that targets zero slums across the country in the 2015-2019 period, as stated in the National Medium-Term Development Plan (RPJMN). This is expected to ensure that everyone can live in decent housing in the future. In the 2025-2029 period, the programme continues with three million houses with the main approach of strengthening collaboration between ministries, local governments, developers, and financial institutions, to ensure affordability, land availability, and certainty of legality, including the use of *idle* buildings and abandoned land. The large number of state and private assets that are not optimally utilised, such as empty buildings, idle land, or land owned by BUMN/BUMD, opens up opportunities to be converted into productive residential areas. The utilisation of these assets is not only efficient in terms of budget and time, but also in line with the principles of sustainable development and regional revitalisation.

In addition, there is a planning document called the Settlement Area Plan (RKP) which serves as a guide in meeting the needs of the settlement environment in urban and rural areas, as well as to support other supporting activities, which are prepared in the short, medium and long term. The preparation of the RKP document is carried out through several stages, namely the preparation stage, survey/data collection, profiling, formulation of policies and strategies, identification and analysis of development concepts, preparation of plans and programme indications, and stipulation of district/city head regulations.

The RKP is also a form of control in the implementation of residential areas. One form of control in the planning of residential areas is through the provision of zoning restrictions for residential areas and places of supporting activities. The determination of zoning boundaries requires consideration of population projections, the number and type of houses, to show the size and distribution of housing/settlements which will determine the character of the Residential Environment. As a planning document that contains strategic and operational directions in the development of residential areas, the RKP contains four main interrelated components. Firstly, policies and strategies for the development and construction of residential areas, which formulate the vision, objectives and approach to creating livable, inclusive and sustainable settlements. Second, the residential environment plan includes spatial arrangements and residential area structures that are adjusted to the characteristics of the region, both in cities and villages, including zoning, density, and regional growth control. Thirdly, the integration plan for infrastructure, facilities, and public utilities (PSU) ensures

integration between road systems, clean water, sanitation, electricity, and social facilities to support residents' quality of life. Finally, the indication of residential development and utilisation programmes presents a plan of priority activities, stages of development, as well as financing schemes and stakeholders involved. These four elements make the RKP a comprehensive planning tool to realise orderly, productive, and equitable settlements.

2.2.3 Include culture as a priority component of urban planning

Including culture as a priority component in urban planning reflects a city's commitment to not only develop physically and economically, but also preserve the identity, history and local values that are the social strength of the community. This is closely linked to indicators of total per capita expenditure from both the public and private sectors on the preservation, protection and conservation of cultural and natural heritage. When culture is integrated into urban planning, budget allocations (by central, local and private sector governments) tend to increase to finance cultural heritage conservation programmes, revitalisation of historical sites, protection of traditional architecture, and promotion of local arts and culture. These expenditures include various types of funding, such as direct government spending, incentives for heritage owners, or corporate investment in the form of CSR. In addition to maintaining social and environmental sustainability, this approach also has a positive economic impact through cultural tourism, the creative economy, and local community engagement. Therefore, the level of per capita spending on cultural preservation can be a concrete indicator of the success of cultural integration in sustainable and inclusive urban planning.

The total per capita expenditure allocated to the preservation, protection and conservation of cultural and natural heritage in Indonesia, according to the SDG white paper, saw a sharp decline from IDR 32.11 million in 2022 to IDR 6.6 million in 2023. This steep decline could be due to a variety of factors, including changing government budget priorities, declining private sector participation, or constraints in reporting and data collection across sectors. This indicator covers different types of heritage (tangible, intangible, natural, and mixed), levels of government (national and local), types of expenditure (operational and intervention), and types of private funding (donations, sponsorships, and non-profit contributions).

The Indonesian government has issued various strategic regulations to strengthen the preservation and promotion of national culture as a whole. Law No. 28 of 2002 on Building Code provides the legal basis for the management of buildings, including Cultural Heritage Buildings (BGCB), with the principle of preserving architectural character and historical value. More specifically, Law No. 11/2010 on Cultural Heritage regulates the protection of historically important objects such as sites, areas, structures, and buildings that have high cultural value. Meanwhile, Law No. 5/2017 on the Promotion of Culture expands the scope of cultural protection, including intangible cultural expressions and cultural communities, and emphasises the importance of community involvement in preservation. The technical implementation of this law is regulated in Government Regulation Number 87 of 2021, which contains a preservation strategy for 10 objects of cultural promotion as well as funding schemes and responsibilities between government levels.

Government Regulation No. 66/2015 on Museums sets standards for the management and development of museums as cultural heritage preservation institutions, while Government Regulation No. 1/2022 strengthens the National Registration and Cultural Heritage Preservation system, creating a comprehensive national database and encouraging regional involvement. For technical aspects, Minister of Public Works and Housing Regulation No. 19/2021 provides guidelines for the physical preservation of Cultural Heritage Buildings, including restoration, rehabilitation, and revitalisation methods that are in accordance with preservation principles.

Measurable achievements from the implementation of these regulations have begun to be seen in recent years. As of 2023, more than 12,000 cultural heritage objects have been inventoried nationally, and more than 1,000 buildings have been designated as cultural heritage through a digital-based registration system that can be accessed on two platforms, namely https://dapobud.kemdikbud.go.id/cagar-budaya and https://referensi.data.kemdikbud.go.id/kebudayaan/cagarbudaya[8] . In addition, more than 600 museums have been accredited according to national standards, showing significant improvements in collection governance and public education. On the other hand, the implementation of the Cultural Promotion Law has led to the development of Cultural Strategies in more than 300 districts/cities, which are a basic requirement for the integration of cultural policies into regional development. Overall, these regulations not only strengthen cultural heritage preservation legally and technically, but also encourage the integration of culture in national and local development planning in a sustainable manner.

2.2.4 Implement planned urban expansion and infilling, urban renewal and regeneration of urban areas

Population density in Indonesia experienced an upward trend over the period 2020 to 2023, from 141 people per square kilometre in 2020 to 147 people per square kilometre in 2023. This increase reflects population growth and greater population concentration in various regions. South Sulawesi province recorded the highest increase in density over the period, with an increase of 13 people per square kilometre, from 194 to 207 people per square kilometre. Meanwhile, several provinces such as Jambi, Central Kalimantan, East Kalimantan, North Sulawesi, Southeast Sulawesi, Gorontalo, Maluku and West Papua only experienced an increase of 1 person per square kilometre. North Kalimantan also showed a significant increase, from 9 to 18 people per square kilometre. However, not all regions experienced growth; Special Region Yogyakarta actually experienced a decrease in density of 3 people per square kilometre during the period. Nevertheless, DKI Jakarta remains the province with the highest population density nationally, reaching around 16,146 people per square kilometre in 2023, reflecting the very high level of urbanisation in the nation's capital. This data emphasises the importance of more planned and equitable spatial and population control policies in the future.

Indonesia's rapid urban development requires innovative spatial approaches to create efficient, inclusive and sustainable cities. One key strategy is the implementation of mixed use.

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[8] Dapobud (Data Pokok Kebudayaan) is an integrated data collection system that presents detailed information about cultural heritage in Indonesia, including object names, categories (such as objects, buildings, sites, structures, areas), relation entities, provinces, districts/cities, and year of designation. This data is obtained through a registration and designation process that starts at the district/city level, as mandated by Law No. 11/2010 on Cultural Heritage. This process involves verification by a team of experts and integration of data from various sources, including the Cultural Heritage Preservation Centre (BPCB) and the regional culture office. Data updates are carried out regularly through synchronisation with relevant agencies, and Dapobud also provides a feature for crowdsourcing, enabling public participation in enriching the data.

On the other hand, the Ministry's Cultural Data Reference presents cultural heritage data in the form of a recapitulated number per province, categorised by type (objects, buildings, sites, structures, areas). This data is aggregative and aims to provide an overview of the distribution of cultural heritage across Indonesia. This information is useful for macro analysis and policy planning in the field of education and culture. However, this page does not provide specific details about each cultural heritage object, such as its name or exact location.

In terms of data updates, Dapobud is more dynamic with updates made regularly through data integration from various levels of government and public participation. Meanwhile, Kemendikdasmen's Cultural Data Reference tends to be updated periodically according to the official reporting cycle, as seen in the 2024 data uploaded on 31 January 2025.

This approach integrates various functions such as residential, commercial, industrial and public facilities within a single area to minimise long-distance movement, encourage local economic activity and improve the quality of life of the community.

In Indonesia, the implementation of mixed land use is gaining momentum with the support of regulations such as Government Regulation No. 21 of 2021 on the Implementation of Spatial Planning and Permen ATR/BPN No. 11 of 2021 on Digital RDTR. These regulations provide a legal foundation for the development of more adaptive multifunctional areas. Several cities have started to implement them, such as the development of Transit-Oriented Development (TOD) areas in Jakarta and the revitalisation of dense residential areas in Surabaya and Semarang that combine residential with business spaces and public facilities.

However, significant challenges remain. At the regulatory level, many regions still use a rigid single zoning approach in their Detailed Spatial Plans (RDTR). The technical capacity of local governments in planning and managing mixed-use areas also needs to be improved. In addition, the available spatial data from the Geospatial Information Agency (BIG) does not fully match the NUA classification, so further data processing is required to regroup the data into five main categories: residential, commercial and services, industry, public facilities, and public space. Spatial analysis using this data shows that areas with mixed zoning policies or integrated area development tend to have higher levels of land use diversity, which is an important indicator in promoting more resilient and inclusive cities.

Implementasi Rencana Tata Ruang (RTR) berlandaskan pada UU No. 26 Tahun 2007 dan dijabarkan lebih lanjut dalam PP No. 21 of 2021 as well as the Provincial/Regency/City RTRW to the Spatial Detail Plan (RDTR), in which it has regulated and directed the number and percentage of new populations that can be accommodated in a city plan or expansion through population projections as a basis for planning, land use zoning, infrastructure development in line with population increases, controlling *urban sprawl* through zoning, limiting development in protected areas, regulating building intensity (KLB/KDB), providing affordable housing, and allocating space for public services.

Through land use zoning, development intensity, and infrastructure development plans, the RTR KSN Bandung Basin Urban Area becomes a spatial framework that indirectly regulates the potential settlement of new populations. This key instrument, which also includes environmental and water resources management strategies, directs where and how much new population can settle and move in the urban national strategic area with the aim of supporting Citarum Harum and realising integration, linkages, inter-regional balance, and inter-sectoral harmony in the Bandung Basin and its surroundings.

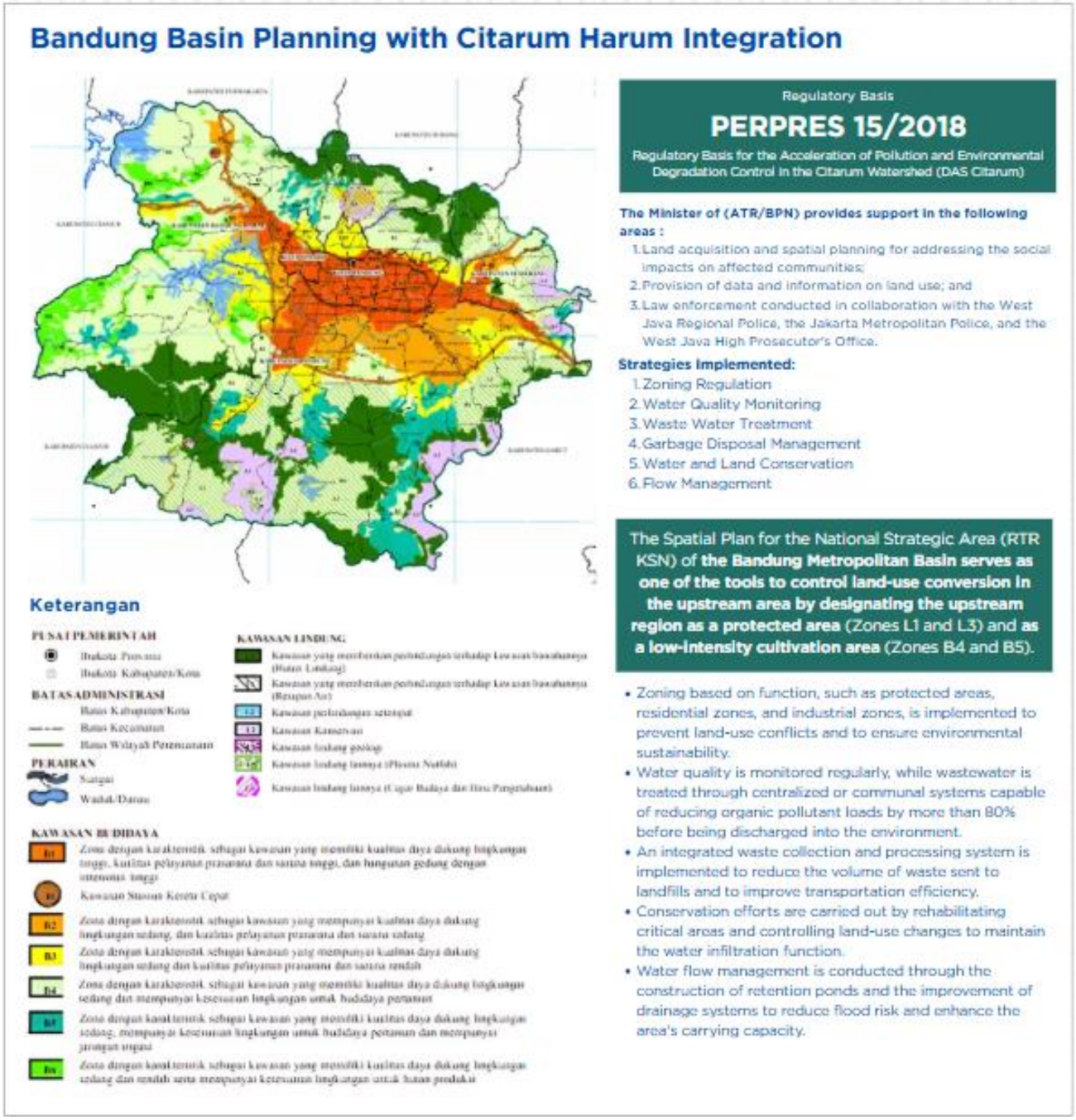

Figure 2.4 Bandung basin planning with Citarum Harum integration
Source: Ministry of ATR/BPN, 2025

In the Bandung Basin National Strategic Area Spatial Plan (RTR KSN), a number of integrated strategies are implemented that aim to maintain environmental sustainability, quality of life, and the resilience of the region to urbanisation pressures. These strategies include zoning regulation, which establishes spatial zones based on different functions and intensity of utilisation-for example, protected, residential or industrial areas-to prevent land use conflicts and environmental degradation. In addition, systematic water quality monitoring is conducted to evaluate the condition of water bodies and detect pollution on a regular basis. To reduce the impact of pollution, waste water treatment with centralised and communal systems is also implemented, which can measurably reduce organic pollutant loads (e.g. BOD and COD) by more than 80% before water is discharged into the environment.

On the waste *management* side, *garbage disposal* management is carried out through an integrated collection and processing system that targets to increase the transport ratio and reduce waste to landfill. *Water and land* conservation is an important pillar to maintain water catchment function and prevent conversion of productive land through rehabilitation of critical areas and land use control. Finally, the *flow management* strategy is directed at flood prevention and improving drainage capacity with natural and technical approaches, including the construction of retention ponds and improvement of waterways. Measurably, these combined strategies support the reduction of flood risk, the improvement of environmental quality, and the balance between development and the carrying capacity of the Bandung Basin, which is an ecologically and economically important area.

2.2.5 Enhance urban planning and design capacity, and training for urban planners at all levels of government

The New Urban Agenda calls for spatial planning and management of urban development. A sufficient number of urban planners are required in a country to prepare and implement urban plans. In this regard, capacity building in urban planning and design is encouraged, as well as the provision of training for urban planners at all levels of government (NUA §102).

In Government Regulation No. 14 of 2021, urban and regional planning professional services are placed as the upstream part of construction services, followed by Landscape Architecture, Architecture, and environmental and civil engineering services downstream. In regional and urban planning, there are three (3) sub-classifications, namely regional planning, urban planning, and urban design. Therefore, in the next three years, strengthening capacity in the field of urban planning becomes very urgent to follow up this transformation.

According to data from the Indonesian Planning Association (IAP) by 2023, there will be 2,300 members with 1300 members who have been certified. This figure shows an increase from previously in 2016 with 1200 members. IAP members are spread across all provinces in Indonesia, and have formed 26 provincial management. This shows that the number of planners and designers is still far from the need that reaches 42,000 planners. Meanwhile, around 1,500 to 2,000 planners are needed annually for urban planning and design.

In addition, the Indonesian Institute of Architects (IAI) also plays a role in strengthening the planning profession in the urban sector and improving the quality of urban governance. IAI encourages the utilisation of Law No. 6 Year 2017 on Architects. This law is important in order to guarantee the quality of architects' professional services in cities in Indonesia. In the future, the condition of cities will become more complex and more parties will be involved in the development and development of urban areas. Ultimately, it is hoped that all stakeholders can be involved in city governance, and encourage all stages of the city development process to be more inclusive.

Urban planners are a multidisciplinary profession. The Indonesian Urban Design Expert Association (IARKI) and the Indonesian Landscape Architects Association (IALI) also play a role in urban development. Relatively younger than the two aforementioned associations, IARKI members are generally architects who studied urban design, which in most educational institutions is a specialisation resulting from the combination of Architecture and Urban Planning. As of early 2021, IARKI already had 188 prospective members registered. This number grew to nearly 300 by the end of 2021. There are currently 412 people registered as Ordinary Members in IARKI. Currently, there are about 200 IARKI members and about 100 IALI members.

There is also a career path for urban planners and designers within the Indonesian bureaucracy as functional officials. The Functional Position of Development Planner (coordinated by the Ministry of National Development Planning) is a position for those involved in development planning, programming and budgeting, which includes the spatial dimension of development planning. This position is reserved for state civil apparatus (ASN) working at both national and regional levels. Within the state civil apparatus (ASN) profession, there are levels of functional positions, ranging from *junior planners*, young planners, middle planners, to master planners. This scheme allows urban planners and designers to continue building their portfolios, updating their knowledge and improving their technical capabilities through this functional officer pathway.

2.2.6 Strengthening the role of small and medium-sized cities

Indonesia has a National Urban Policy (NUP) as well as various Regional Development Plans (RPD) that explicitly respond to the dynamics of urban population and growth. The National Urban Policy (NUP), officially launched in 2015, is a national strategic framework to direct sustainable, inclusive, and competitive urban development. Developed by the Ministry of Agrarian Affairs and Spatial Planning/National Land Agency (ATR/BPN) together with Bappenas, the Ministry of Public Works, and other relevant agencies, the NAP has a key focus on managing rapid urbanisation in a fair and efficient manner, improving connectivity between cities and between cities-rural areas, providing basic infrastructure and decent housing, and strengthening the role of small and medium cities as a counterweight to the dominance of large cities. This policy serves as a guide for all stakeholders to address the complex challenges of urbanisation in Indonesia.

Meanwhile, in the 2020-2024 National Medium-Term Development Plan (RPJMN) document, urban development is set as one of the national priorities. The main focus is to realise inclusive and sustainable urban areas through a city network system approach, which encourages the growth of small and medium-sized cities to reduce demographic and economic pressures in big cities. The RPJMN also encourages the integration of infrastructure development, transport, housing, and environmental management in urban areas.

This policy is then passed down to the regional level through the Regional Medium-Term Development Plan (RPJMD) and Regional Development Plan (RPD) prepared by provincial governments and municipality with reference to the RPJMN and local needs. Some regions have responded to the dynamics of urbanisation with relevant strategies. For example, West Java Province encourages the development of satellite cities such as Cirebon, Sukabumi, and Tasikmalaya to distribute economic growth centres. Meanwhile, Papua and East Nusa Tenggara (NTT) provinces prioritise the development of basic infrastructure in small and medium-sized cities that are experiencing high population growth, to ensure access to basic services and reduce inequality between regions. These three policy levels-national, regional, and local-complement each other in shaping a more targeted and equitable Indonesian urban development system.

Major cities in Indonesia over the past two decades have been centred on Java Island, but there is a trend of population shifts to Sumatra Island. According to STATISTICS INDONESIA data in 2020, the total population in Sumatra Island reached 57.4 million people or around 21% of the total population of Indonesia. This shows that Sumatra Island is becoming an increasingly attractive area as a place to live. This shift shows that there is a tendency for Indonesians to start looking for alternative places to live outside Java. This can be caused by several factors, such as congestion, limited land, and the higher cost of living in Java. In addition, the development of adequate infrastructure on the island of Sumatra, such as toll roads and international airports, is also a factor that influences this shift.

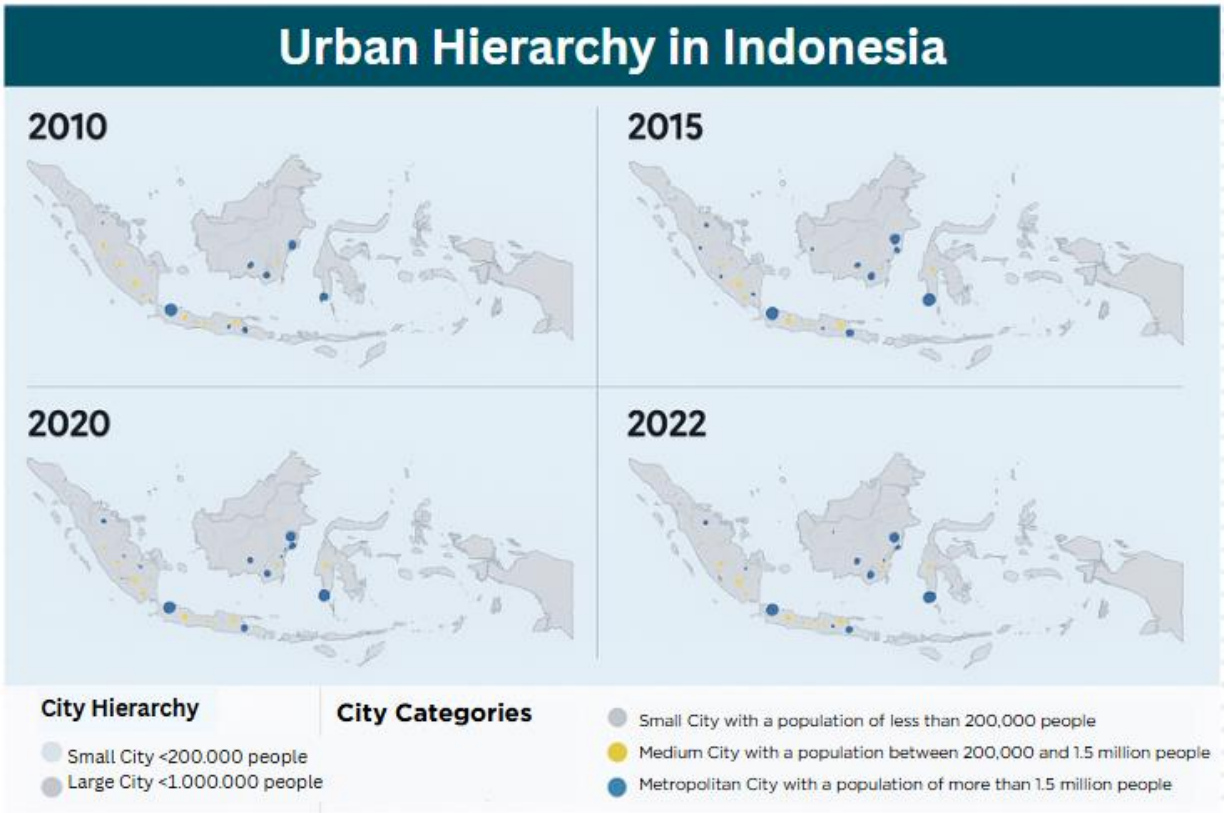

Figure 2.5 Structure of Urban Population Distribution with a shift from Java to Sumatera

As stated in Indonesia's National Medium-Term Development Plan (RPJMN) 2020-2024, Indonesia is committed to promoting balanced development and reducing regional disparities by spreading centres of growth and services to less developed regions. Therefore, small and medium-sized cities play an important role in connecting major cities with more than 84,048 villages in Indonesia, as well as promoting the development of mutually supportive rural and urban areas.

2.2.7 Implement a sustainable multimodal public transport system including non-motorised options

Indonesia continues to encourage the development of a sustainable multimodal public transport system as part of efforts to create more environmentally friendly, efficient and inclusive cities. This multimodal system is designed to integrate various modes of transport such as rail, MRT, LRT, BRT, urban transport, and feeder services to provide easy connectivity between regions and improve the convenience and efficiency of community mobility. Not only focusing on motorised modes, the system also includes non-motorised transport options such as bicycle lanes and safe and decent pedestrian facilities, in support of sustainable and low-emission mobility.

The implementation of this approach is already evident in many major cities in Indonesia. In Jakarta, a pioneer of multimodal transport integration, the JakLingko system has integrated intermodal fares and routes with an integrated e-ticketing approach. The capital city also operates the MRT and LRT, expands the TransJakarta BRT network, and provides more than 100 km of bicycle lanes and a growing fleet of electric buses to reduce carbon emissions. This

policy is complemented by improving the quality of sidewalks and implementing low-emission zones in some areas of the city centre.

Outside of Jakarta, cities such as Surabaya, Yogyakarta and Semarang have also shown significant progress. Surabaya, for example, has introduced environmentally-friendly public transport systems such as the Suroboyo Bus, which uses a plastic waste-based payment system. The city is also improving pedestrian facilities and bicycle lanes to encourage mobility without motorised vehicles. Meanwhile, Yogyakarta and Semarang are strengthening BRT services and encouraging heritage preservation by restricting motorised vehicles in certain areas and expanding public transport networks based on major corridors.

Other cities such as Bandung, Makassar, and Medan are currently in the planning and development stages of rail-based mass transport systems and BRT corridors, as part of the national strategy for equitable access to sustainable public transport. The implementation of these systems is also driven by commitments to global targets, such as the Sustainable Development Goals, particularly Goal 11 on inclusive, safe, resilient and sustainable cities and settlements, and the New Urban Agenda which emphasises the importance of mobility as a basic right of urban citizens. By continuing to expand and improve its multimodal transport system, while taking into account sustainability and inclusiveness, Indonesia is demonstrating a strong commitment to building cities of the future that are more integrated and competitive, as well as healthier and more sustainable for all citizens.

In addition, as mentioned in sub chapter 1.1.1.4, Law No. 11/2020 on Job Creation underlines the importance of developing safe, inclusive, green, and multifunctional public spaces, as part of a sustainable urban development strategy. While integrated national data on the length of sidewalks and bicycle lanes is not yet available, DKI Jakarta shows the most significant progress, with 313.6 Km of bicycle lanes covering various types of infrastructure and 610 Km of sidewalks, covering 87.1% of road sections. Other Jabodetabek regions are starting to follow suit, albeit with limited contributions. This data shows that the development of infrastructure supporting non-motorised mobility such as sidewalks and bicycle lanes is not yet evenly distributed throughout the city, but has started to become a concern in urban planning policies and . Such infrastructure improvements not only support sustainable mobility and carbon emission reduction, but also support the social function of public spaces, strengthen public health, and become part of efforts to mitigate climate change and reduce congestion in metropolitan areas. This policy also reflects a paradigm shift that public space is not just a means of transport, but also an important part of the quality of life of urban communities.

2.3 Means of Implementation

2.3.1 Mobilisation of Financial Resources

2.3.1.1 Develop a financing framework for implementing NUA at all levels of government

For this subchapter, the indicator of the existence of a national structure or office or committee to implement the New Urban Agenda is one of the keys to both national reporting on the NUA and local government facilitation in their respective cities. UN-HABITAT recommends that the preparation of the Report on the Implementation of the New Urban Agenda should be done by the ministry dealing with urbanisation in the country. The National Habitat Committee (NHC) and the National Urban Forum (NUF), if any, should play a leading role or take the lead in preparing the Report. This indicator seeks to determine if there is an office or committee or

task force to implement the New Urban Agenda. It is also important that the New Urban Agenda has been integrated into national urbanisation and infrastructure plans.

In Indonesia, this forum is formed in the Habitat National Secretariat (Seknas). The forerunner of the establishment of this national secretariat began with the formation of the Habitat Agenda National Committee which was formed in 2001 by President Abdurrahman Wahid. The Habitat Agenda National Committee initially worked for 5 years as a liaison between ministries and institutions to handle various Habitat-related agendas. Its members consist of ministries or agencies related to housing and urban areas, academics, and practitioners. However, after the commitment period was over, there was an intention to continue the efforts to realise sustainable cities through a more official forum. Finally, an institution in the form of a secretariat was formed, namely Seknas Habitat Indonesia in 2008. This institution was established in the form of a national secretariat because it plays a more role in collecting data and information, reporting on the achievements of the habitat agenda, and facilitating implementation programmes by other institutions or stakeholders by not occupying their respective roles. At that time, the decree establishing Seknas Habitat was signed by two ministers, namely, the Minister of Public Housing and the Minister of Public Works, before in 2014 the two ministries were merged into the Ministry of Public Works and Housing (PUPR Ministry).

As a follow-up to the Habitat III Conference (Quito, 2016), Habitat institutional development at the national level was directed, with Bappenas as the focal point supported by Seknas Habitat as the daily secretariat under the Ministry of Public Works. However, along with its development, the function of the focal point shifted to the Habitat National Secretariat with the chairman of the Director General of Human Settlements. Since the organisational change in the Ministry of Public Works which changed the R&D Center to the Directorate of Technical Development, according to the direction of the Minister of PUPR, since 2020 the UN-Habitat focal point has been under the Directorate of Settlement and Housing Engineering, to be precise at the Hall of Settlement and Housing Areas. In addition to involving various stakeholders, this national habitat institution serves to "ground" and facilitate the application of the New Urban Agenda to the local level, including the submission of NUA implementation reports.

In accordance with the commitments in the New Urban Agenda, each country needs to develop guidelines for the implementation of the New Urban Agenda 'Practical Guidelines for Implementing the New Urban Agenda' in 2017 and 2018. The preparation of the guide was coordinated by the RuangWaktu Team with contributors including Seknas Habitat, Habitat Partnership, academics and practitioners, and the publication was supported by BPIW Ministry of Public Works.

There are eight practical guides, one general guide and seven guides according to the components of government affairs in Law no. 23/2014, namely: housing and access to basic services, disaster and environment, urban governance, urban transport and mobility, spatial planning and urban development, local economic development, and socio-culture and health.

The National Urban Forum (NUF) has now been adopted in Indonesia's National Urban Policy in the National Urban Development Policy and Strategy 2012-2045 document prepared by the Ministry of National Development Planning/Bappenas, as well as Government Regulation No. 59 of 2022 on Cities prepared by the Ministry of Home Affairs. In Indonesia, NUF has been organised for 2 (two) times, namely in 2015 and 2023.

The year 2015 was an important year for Indonesia towards Habitat III. Indonesia was given the opportunity to host several agendas towards Habitat III. In preparation for the various activities, there was an initiation of the NUF. The NUF was held by the Directorate of Building and Environmental Management on 28 May 2015 with the theme "Towards Indonesia New

Urban Agenda" by promoting innovative ideas that allow existing cities to accommodate the needs of the growing population. The NUF was part of the "Water, Sanitation, and Cities" event that focused on basic infrastructure and services for Indonesian cities that took place from 27-29 May 2015. NUF 1 was organised with the aim of building a common understanding and formulating a New Urban Agenda for Indonesia that will be presented at the High Level Asia-Pacific Regional Meeting for Habitat III and the 6th Asia-Pacific Urban Forum in October 2015 in Jakarta, prior to the Preparatory Committee (PrepCom) 3 event in 2016 in Surabaya.

Through NUF 2015, best practices of urban settlement development in several cities and regencies were discussed, in realising liveable and sustainable cities in an inclusive manner, involving all actors of urban development. For example, development practices implemented in Surabaya City, Banjarmasin City, and Banyuwangi Regency. NUF 2015 was attended by approximately 515 participants consisting of elements of central and local government, academics, students, related communities, and Associations.

In 2023, NUF was again organised as an inclusive forum to discuss complex urban issues. Collaborative efforts in this second NUF have been carried out since the beginning of 2023 in networking across stakeholders from various fields that have reached more than 40 agencies from Ministries/agencies, local governments, academics, professionals, communities, NGOs, as well as the private sector and donor agencies. This networking resulted in a number of substantial activities in the form of workshops, webinars, and dialogues, which were disseminated through social media channels such as YouTube and Instagram. This series of activities is aimed at obtaining input from various stakeholders, gaining a diversity of perspectives in understanding complex urban issues, and finding solutions together.

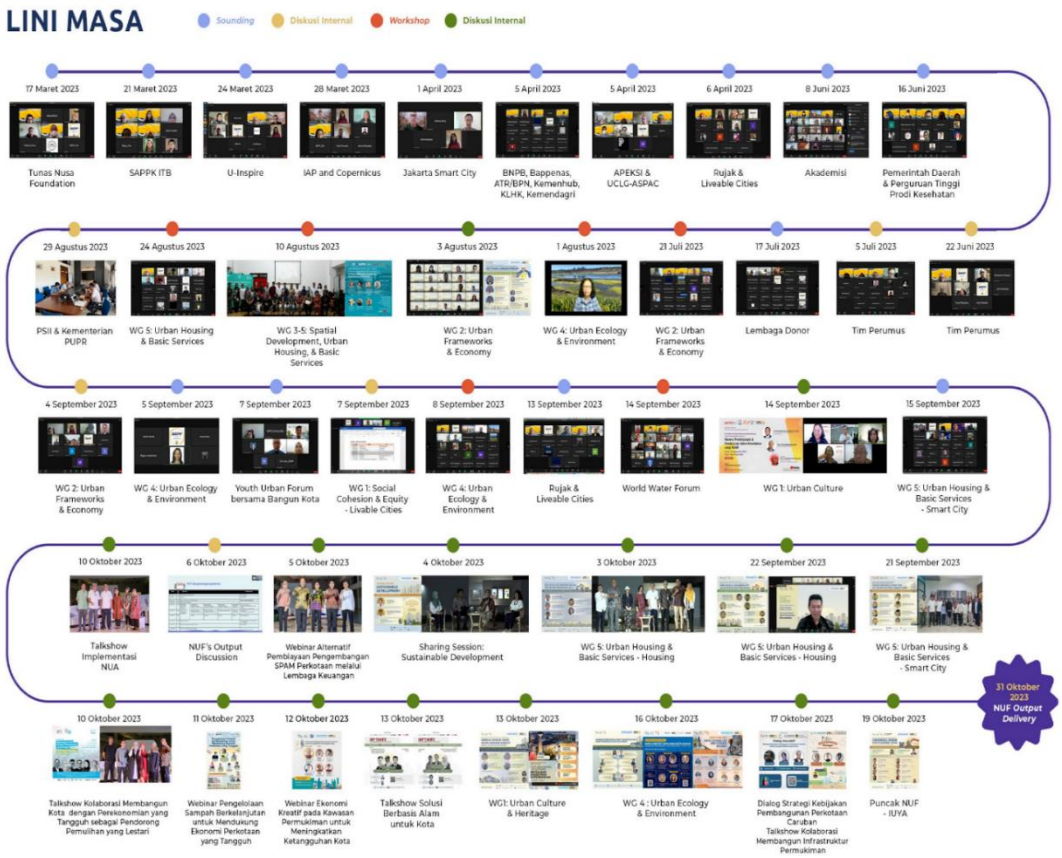

Figure 2.6 NUF 2023 timeline of events

Given the important role of cities that will be home to the majority of the population in the future, there are 5 working groups (WG) in the NUF by adopting the structure of Habitat III as follows: 1. Equality and social cohesion, including issues on urban culture and heritage; 2. Economy and urban frameworks; 3. Spatial development; 4. Ecology and urban environment; and 5. Housing and basic infrastructure, including issues on transport and smart cities. The output of the second NUF in the form of a book can be accessed at https://bit.ly/IndonesiaNUF2023report .

2.3.1.2 Mobilise internal sources of funding and broaden the revenue base of local and regional governments

Mobilising internal funding sources and broadening the revenue base of local governments are key strategies in strengthening fiscal independence and supporting sustainable regional development. Local governments are encouraged to increase local own-source revenue (PAD) through optimising the collection of local taxes and levies, such as land and building tax, motor vehicle tax, and general service levies. In addition, innovations in the utilisation of regional assets, such as the utilisation of government-owned land for cooperative utilisation (KSP) or lease, are also potential sources of revenue. Public service digitisation programmes and online tax systems also strengthen efficiency and transparency in local revenue collection. The central government also encourages regions to develop public-private partnerships (PPPs) and utilise alternative funding schemes, such as regional bonds and philanthropic funds, to fund infrastructure and basic services. By broadening their revenue base and reducing dependence on central transfers, regions can have greater fiscal space to design development programmes that are responsive to local needs and promote inclusive economic growth. A detailed description of this data can be found in section 2.1.1.

2.3.1.3 Formulate a good financial transfer system from central government to local government and local government based on needs, priorities and functions

Formulating a good financial transfer system from the central government to local governments is an important part of fiscal reform to support equitable development and strengthen regional capacity. This effort is carried out through improving the mechanism of the General Allocation Fund (DAU), Special Allocation Fund (DAK), and Regional Incentive Fund (DID) to be more responsive to the real needs, development priorities, and public service functions in each region. The central government has now begun to implement a performance and output-based approach, where the amount and distribution of transfer funds are linked to the achievement of development indicators such as poverty reduction, improving the quality of education and health, and the effectiveness of regional financial management. In addition, the Village Fund scheme is also directed to be more accurate based on data on poverty, population, and geographical conditions. This reform is strengthened by the digitisation of the reporting and evaluation system, which allows for more transparent and accountable monitoring of the allocation and use of funds. Through a needs-based and function-based transfer system, it is expected that all regions, including those that are left behind and remote, can obtain fair fiscal support to exercise autonomy and accelerate the achievement of national development goals in an equitable manner. A detailed description of this data can be seen in sub-section 2.1.2.

2.3.1.4 Mobilise and establish financial institutions (multilateral institutions, regional development banks, regional and subnational development funds; co-financing mechanisms, etc.) for urban financing

The mechanism of the transfer formula to the regions from the central government in Indonesia is carried out through the Regional Transfer Fund (TKD) scheme, which includes the General Allocation Fund (DAU), Special Allocation Fund (DAK), Revenue Sharing Fund (DBH), Fiscal Incentive Fund, and Village Fund. The distribution formula is designed to create fiscal justice between regions and support equitable public services. DAU is calculated based on the fiscal needs and fiscal capacity of each region, while DAK is specific to fund national priority activities devolved to the regions. DBH is allocated based on state revenues sourced from the regions, such as taxes or natural resources. The distribution of these funds follows the stages of planning, budgeting, allocation, and budget output which are closely monitored and evaluated by the Ministry of Finance to ensure the effectiveness and accountability of the use of funds in the regions.

Figure 2.7 Transfer revenue trends 2021-2025
Source: Ministry of Home Affairs, 2025

The data contained in the DJPK portal of the Ministry of Finance for fiscal year 2025 includes various components of the Regional Budget (APBD) which are divided into revenues, expenditures, and regional financing. Total regional revenue for 2025 is estimated at IDR1,338,862.79 billion, consisting of Regional Original Revenue (PAD) of IDR401,544.11 billion, which includes local taxes, levies, results of management of separated regional assets, and other legal PAD. Transfers to Regions and Village Funds (TKDD) amounted to Rp880,033.11 billion, and other revenues such as grants and emergency funds reached Rp57,285.57 billion. Meanwhile, total regional expenditure is estimated at Rp1,385,448.04 billion, with details of personnel expenditure of Rp507,882.04 billion, goods and services expenditure of Rp408,956.95 billion, capital expenditure of Rp205,748.91 billion, and other expenditure such as subsidies, social assistance, grants, as well as revenue sharing expenditure and financial assistance, each of which has a different allocation. Regional financing in 2025 recorded total revenue of Rp64,269.46 billion and expenditure of Rp17,654.48 billion. This financing revenue includes the remaining excess of the previous year's budget calculation, the disbursement of reserve funds, and the receipt of regional loans. Financing expenditures include the formation of reserve funds, regional equity participation, debt instalment payments, and the provision of regional loans. This data provides an overview of regional financial planning in Indonesia in 2025, which is useful for evaluation and monitoring of regional budgets.

The trend in local government transfer revenues from fiscal year (FY) 2021 to 2025 shows a relatively stable pattern but remains dominated by a high dependence on transfer funds from the central government. Nationally, the proportion of transfer revenue to total local revenue is in the range of 69-71 %. In FY 2021, transfer revenues reached Rp815.50 trillion or 70.57 % of total regional revenues, and in FY 2025 it slightly decreased to Rp939.63 trillion or 69.32 % of total revenues of Rp1,355.58 trillion.

When broken down by type of government, district governments show the highest dependence on central transfers, with a share above 82% over the five-year period. In 2021, regencies received IDR538.10 trillion of the total revenue of IDR644.03 trillion (83.55%), and in 2025 it reached IDR660.92 trillion of the total IDR804.57 trillion (82.04%). Municipal governments show a slight downward trend in dependency, from 64.97% in 2021 to 59.44% in 2025. Meanwhile, the provincial government actually experienced an increase in dependency, from 49.91% in 2021 to 64.45% in 2025, with the transfer value increasing from IDR182.18 trillion to IDR176.45 trillion, although total revenue also increased.

This data reflects that despite efforts to increase local own-source revenues (PAD), the majority of regions are still highly dependent on transfers from the centre, especially at the district level. This dependency indicates the need to strengthen regional fiscal independence so that development is more sustainable and less dependent on central budget policies.

Local government financial resources do not only come from central transfers such as the General Allocation Fund (DAU) or Special Allocation Fund (DAK), but are also supported by access to financing from financial institutions, both national and international. One important source is the Regional Development Bank (BPD), which plays a role in channelling credit for basic infrastructure projects such as roads, clean water and sanitation, with more flexible financing schemes that suit local needs. In addition, local governments have also begun to utilise cooperation with multilateral institutions such as the World Bank, Asian Development Bank (ADB), and Islamic Development Bank (IsDB) in the form of soft loans, technical grants, and strategic project financing support, including in the areas of urban governance, public transport, and climate change mitigation. Based on data from the Ministry of Finance as of 2023, around IDR42.3 trillion of regional project financing came from active foreign loans channelled through government cooperation and multilateral institutions. Meanwhile, lending

by BPDs across Indonesia reached more than IDR640 trillion, of which a portion was allocated for local-scale public financing. By utilising these financial resources, local governments can expand their fiscal capacity without relying too heavily on the APBD, while accelerating infrastructure development and public services that have a direct impact on people's welfare.

Several regions in Indonesia have successfully utilised financial resources from Regional Development Banks (BPDs) and multilateral institutions to fund strategic development projects. For example, the West Java Provincial Government has developed three alternative financing schemes: regional bonds, loans from financial institutions, and public-private partnerships (PPP). These schemes are used to finance the development of social infrastructure such as hospitals, low-income housing, and environmental and logistics infrastructure.

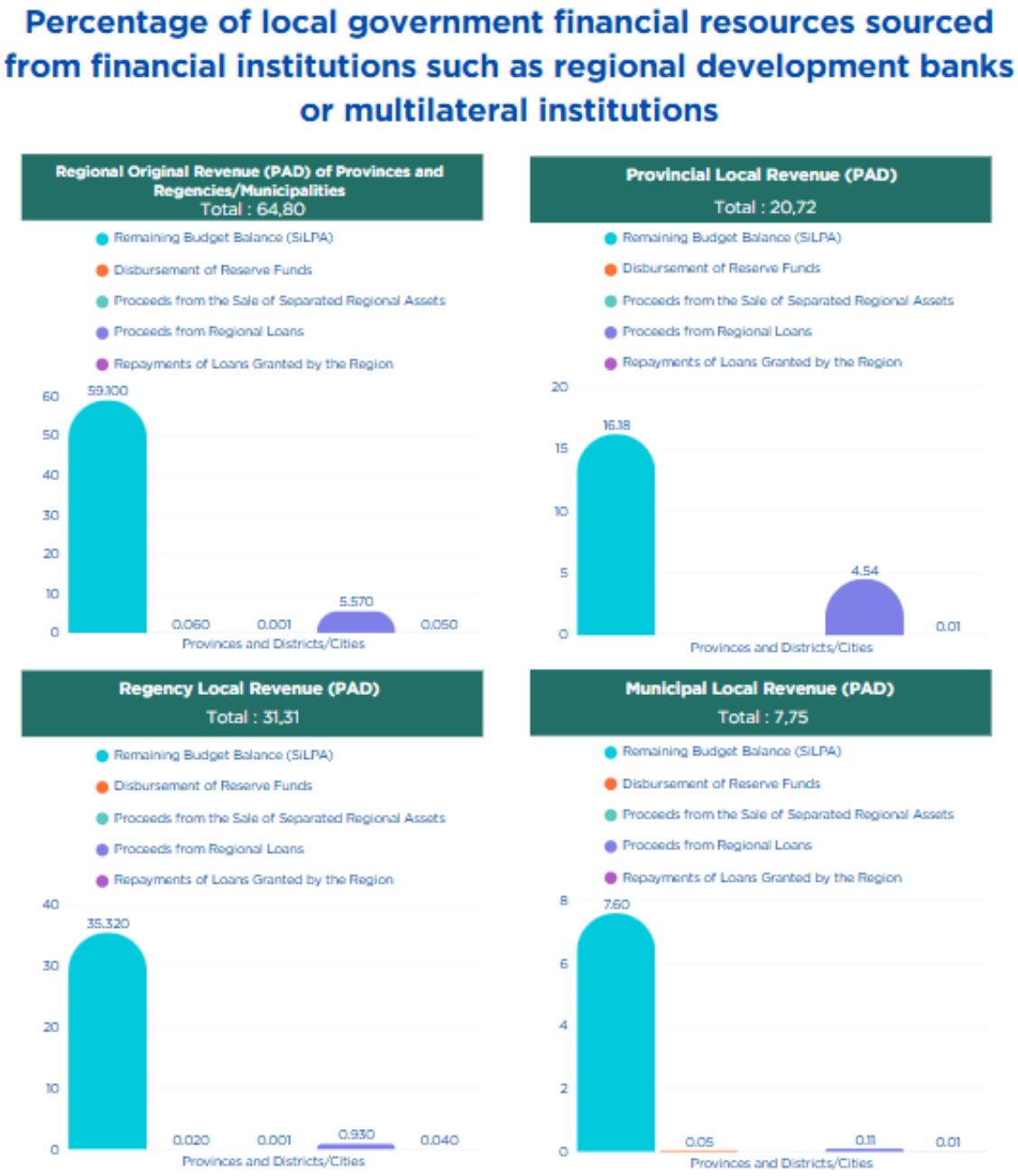

Figure 2.8 Percentage of local government financial resources that come from financial institutions such as regional development banks or multilateral institutions
Source: Ministry of Home Affairs, 2025

In addition, Bankaltimtara, owned by the Provincial Governments of East Kalimantan and North Kalimantan, plays an important role in providing financing for regional development. The bank supports sectors such as MSMEs, infrastructure, and public services, with a focus on empowering the local economy.

At the national level, the Indonesian government also receives financial support from multilateral institutions. In 2023, the World Bank approved a USD 400 million Program-for-Results loan to support the SINERGIS programme, which aims to improve the efficiency and accountability of local spending. The programme focuses on the health, road, and clean water sectors, as well as strengthening local government financial management systems. Through the utilisation of financial resources from the BPD and multilateral institutions, local governments can expand their fiscal capacity and accelerate the development of infrastructure and public services, which in turn improves people's welfare.

2.3.2 Capacity building

2.3.2.1 Expand opportunities for inter-city co-operation and promote exchange of urban solutions and mutual learning

In facing the complex challenges of urbanisation, climate change, social inequality, and digital transformation, the expansion of inter-city cooperation is a strategic key in strengthening the capacity of local governments. Cross-city collaboration not only opens up space for synergies in policy and programme development, but also accelerates the spread of innovations and good practices that can be replicated contextually across different regions. The exchange of urban solutions and shared learning among cities is an important means to improve governance effectiveness and accelerate the achievement of sustainable development goals.

In Indonesia, this role is actively carried out by the Association of Indonesian Municipalities (APEKSI), which serves as a platform for collaboration between municipalities on strategic issues such as waste management, public transportation, digitalisation of services, and innovative financing. APEKSI is not only a forum for advocating city interests to the central government, but also a collective learning space where members share successful policies and innovative solutions that have proven effective in their respective regions.

More broadly, the involvement of Indonesian cities in global networks such as United Cities and Local Governments Asia Pacific (UCLG ASPAC) consists of 29 local governments in UCLG-ASPAC, where Padang, Bandar Lampung, Surakarta, Surabaya, Banjarmasin, and Gorontalo are among the cities that have actively participated in strengthening the position of local governments in international forums. UCLG ASPAC promotes the integration of Asia Pacific cities' perspectives on global development, and provides a platform for training, policy dialogue, and technical exchange among its members. Through this network, Indonesian cities can access international insights, follow global agendas such as SDGs and New Urban Agenda, and build concrete collaborations with partner cities abroad.

Collaboration through APEKSI and UCLG ASPAC significantly expands the institutional capacity of Indonesian cities to inspire, innovate, and develop together. With the spirit of mutual learning and sharing, cooperation between cities not only strengthens local and regional solidarity, but also builds an adaptive, inclusive, and sustainable urban development ecosystem.

Local government partnerships

Local governments in Indonesia, based on data in 2021, have participated in large regional and international city networks and platforms such as around 49 cities involved in Sister Cities International. In addition, Bogor and Bekas are among the seven local governments involved in the World Association of Major Cities (Metropolis). Jakarta and Semarang are involved in the Resilient Cities Network. This is part of a network that collaborates through multicity associations. However, city-to-city cooperation through twinning programmes has been pursued by many cities for a long time. This depends on the strength of their Cooperation Division within the local government, the more internationally oriented the division is, the more realisable the twinning programme can be.

By 2024, there will be at least 105 cities in Indonesia actively engaged in sister cities programmes with cities abroad in an effort to strengthen city diplomacy, economic cooperation, culture, education, and urban governance. Cities such as Jakarta, Surabaya, Bandung, Denpasar, Yogyakarta, and Makassar are examples of cities that have many sister city relationships with cities such as Tokyo, Seoul, Rotterdam, Melbourne, and Vancouver. Jakarta, for example, has more than 20 sister cities, including Los Angeles and Beijing, with tangible results such as cooperation in public transport, waste management technology exchange, and joint tourism promotion. Surabaya has active relationships with the cities of Kitakyushu and Busan, resulting in environmental management training programmes and port development.

Measurably, the benefits of this cooperation can be seen in an increase in international delegation visits by 15-20% per year in cities that are active in sister cities, as well as an increase in local and foreign investment. In Surabaya, cooperation with Kitakyushu has led to a 10% reduction in waste volume through the transfer of recycling technology. Bandung, which has sister city relationships with Braunschweig (Germany) and Suwon (South Korea), has successfully developed a number of smart city projects through technical collaboration, and has hosted more than 200 students on cultural and academic exchange programmes in the past five years. In Denpasar, co-operation with tourism cities such as Helsingborg (Sweden) supports the promotion of MSMEs and eco-tourism, increasing local craft exports by 8% by 2022. Thus, the sister cities programme has an impact that is not only symbolic, but also real and measurable in the global and sustainable development of the city.

Increased capacity of public sanitation utilities

Based on the BUMD drinking water performance report (BUMD Drinking Water Performance Assessment Report), nationally from a total of 389 BUMD Drinking Water that have been assessed for performance have an average performance value of 3.20 with a healthy category of 237 BUMD Drinking Water, an unhealthy category of 101 BUMD Drinking Water, and a sick category of 51 BUMD Drinking Water. The performance of drinking water perumda/perseroda shows the extent to which the public is assured of safely managed drinking water consumption. The performance of unhealthy or sick BUMDs/serodas will have a major impact on their ability to provide safely managed drinking water. Of the 57,314 drinking water BUMD human resources, only 27,117 (47.31%) drinking water BUMD human resources have attended training education or competency improvement. As for the 380 Drinking Water BUMDs in Indonesia that have been assessed by BPPSPAM, there are only 224 (59%) Drinking Water BUMDs that have Healthy Performance.

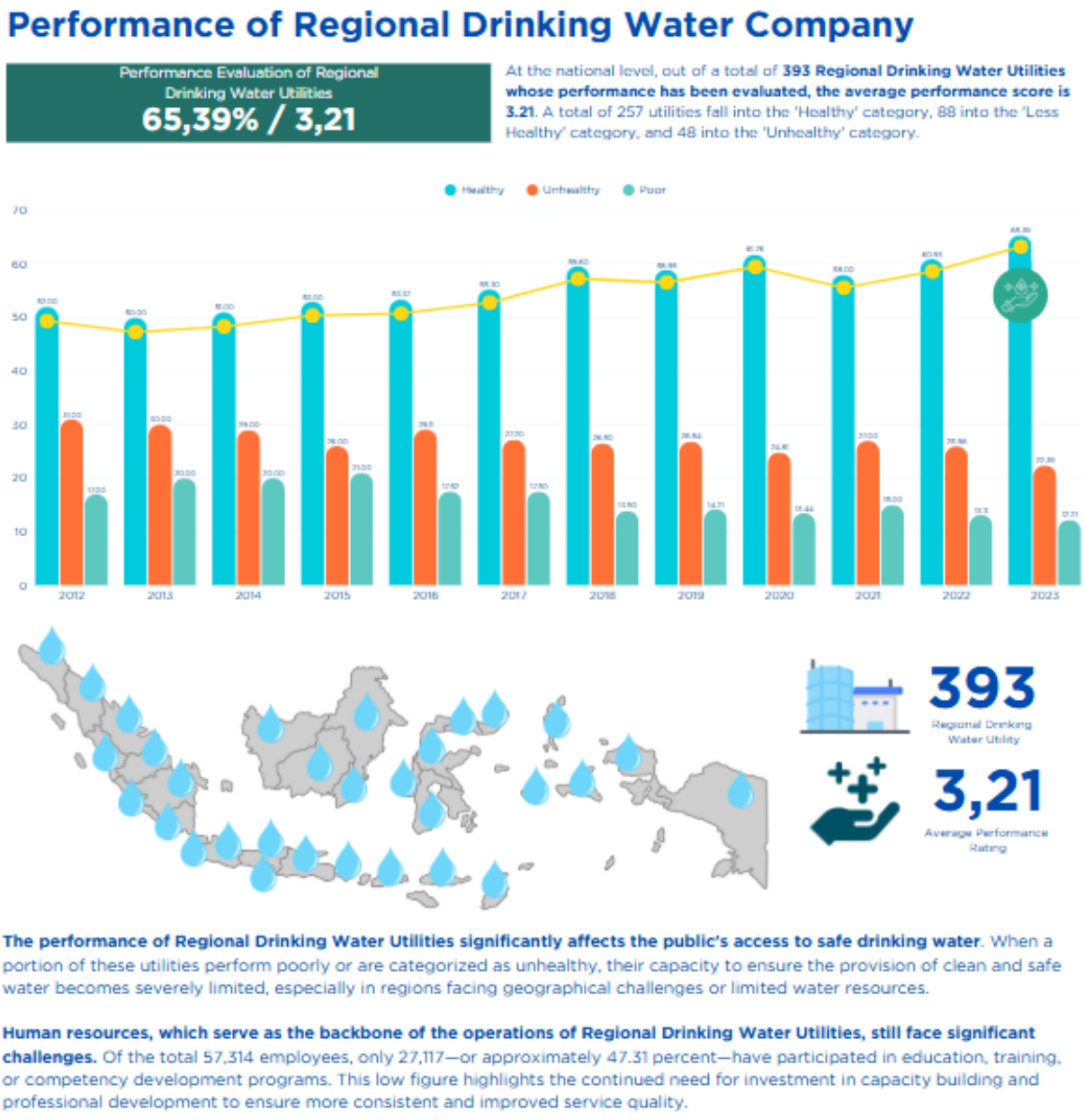

Figure 2.9 BUMD Drinking Water Performance (top: 2012-2023; bottom: 2023)
Source: Ministry of Public Works, 2023

Overall, the number of public sanitation utilities participating from 2020 to 2024 in the institutional capacity building programme was 1053, an increase from 224 in 2020 to 226. In order to support the achievement of access to safe and sustainable drinking water in Indonesia, the drinking water quality monitoring system continues to improve, both in terms of recording, reporting, and involving stakeholders across sectors. This strengthening effort is carried out through the use of digital technology and synergy between the central government, local governments, health service facilities, and international development partners. One of the strategic steps implemented is the digitisation of the Drinking Water Quality Monitoring (PKAM) reporting system, which facilitates periodic data collection and verification from community health centres (puskesmas) to the district or city level. In addition, the development of the PKAM E-Monev system by the Ministry of Health together with partners such as WHO and UNICEF is an important step in building an integrated drinking water monitoring database. Strengthening this system not only aims to improve reporting accuracy but also supports the achievement of the New Urban Agenda.

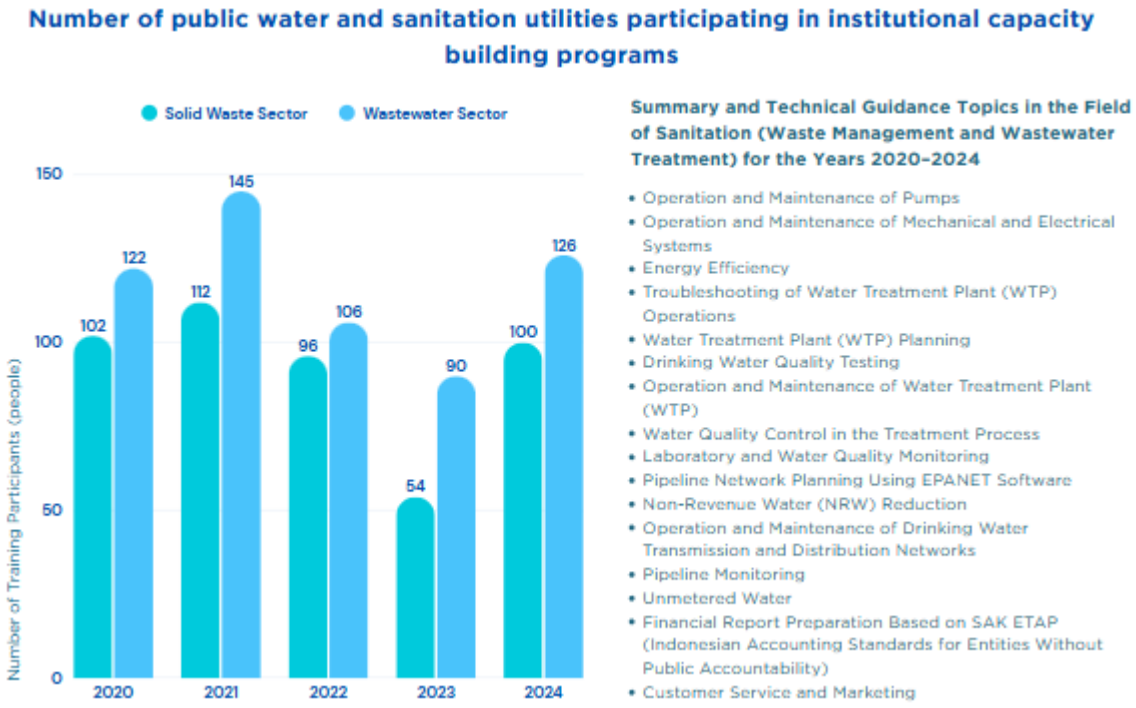

Figure 2.10 Increased capacity of public water and sanitation utilities (2024)
Source: Ministry of Public Works, 2025

The recording and reporting system for Drinking Water Quality Monitoring (PKAM) in 2022 is carried out using online-based media (google spreadsheet) made by the Directorate of Environmental Health and can be accessed by all District / City Health Offices in Indonesia. The PKAM data inputted into the reporting system is data on external supervision carried out by Sanitarians at Puskesmas on drinking water facilities.

PKAM reporting data from Sanitarians at Public Health Centre will be verified by the District Health Office before being entered into the online-based reporting system. Reporting is carried out every 4 months or quarterly to get the achievement rate of the Indicator of the percentage of Drinking Water Facilities that are Supervised/Inspected for Drinking Water Quality according to Standards. Currently, the Ministry of Health of the Republic of Indonesia together with development partners (WHO) is developing an online application-based recording and reporting system (E-Monev) PKAM. This E-Monev PKAM recording and reporting system can produce a database in the form of internal monitoring results that will be managed by each Drinking Water Provider / Operator, external monitoring results managed by each Sanitarian Puskesmas and laboratory network results that will be managed by laboratories included in the UPT Ministry of Health.

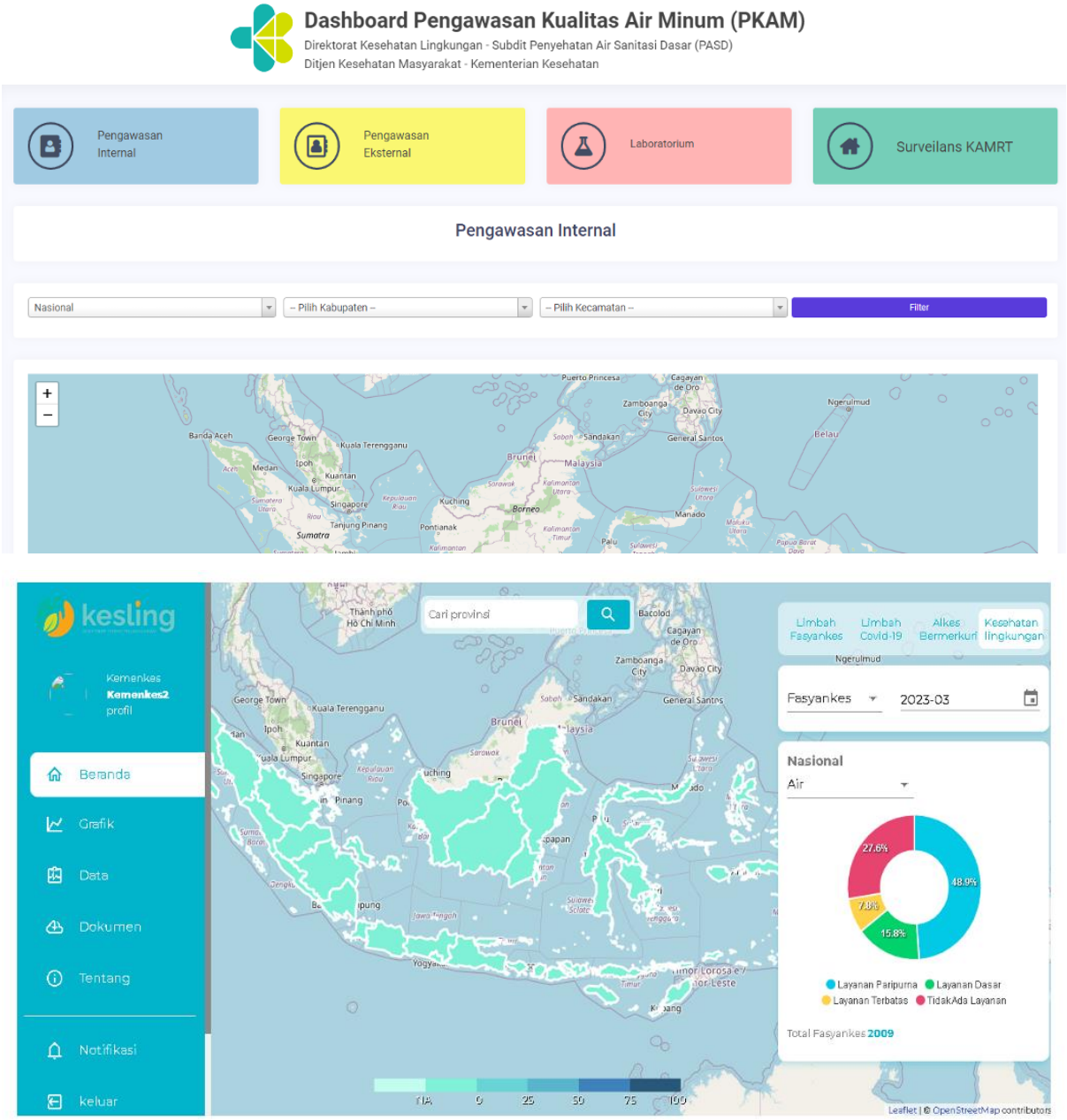

Figure 2.11 PKAM dashboard view
Source: Ministry of Public Works, 2025

Support from external development partners such as regional public company responsible for providing clean water to the public (Perumda), WHO, Unicef and USAID is essential to support Indonesia in achieving safely managed drinking water targets. WHO until the end of 2022 is supporting in the development of a roadmap for water quality monitoring and in the review and preparation of WSP audits and safely managed drinking water quality parameter studies. Another programme of the development partners is Wash Fit in health facilities. Wash Fit is a method to improve service quality that is used by facilities to identify areas for improvement and take corrective action. Based on the wash profile at the Community Health Centers (puskesmas), 1 out of 5 centers do not have access to safe water and 1. The status of the National Wash service will later be reported as an achievement of SDG 6 and 3 in Sikelimkes.

2.3.2.2 Promote capacity building as a multifaceted approach to formulating, implementing, managing, monitoring and evaluating urban development policies

Having adequately trained staff in urban development policy planning and implementation is expected to increase the capacity to engage in urban development policy. Capacity building in urban development policy especially at the government level has increased. Bappenas started cooperation with universities to train civil servants for positions as planners especially to deal with government-based urban management, urban development and planning. In addition to non-degree training, Bappenas also started an 18-month dual degree and postgraduate programme for civil servants. However, to date there is no statistical data on the percentage of cities and local governments with staff trained in the formulation, and implementation of urban development policies.

Some of the functional positions related to the formulation, implementation, management, monitoring, and evaluation of urban development policies include Planners, Researchers, Policy Analysts, and technical positions such as Civil Engineers, Architects, and Landscapers. Planners are tasked with preparing comprehensive and sustainable development plans, while Researchers produce scientific data and analyses as a basis for policy. Policy Analysts have an important role in formulating and evaluating policies with an *evidence-based* approach. On the technical side, Civil Engineers and Architects are involved in the implementation and management of infrastructure and urban design in accordance with regulations and community needs. Spatial Planners help determine the direction of urban development through integrative spatial planning. These positions collaborate with each other to ensure that urban development is effective, efficient and sustainable.

2.3.2.3 Strengthen the capacity of all levels of government to work with vulnerable groups to participate effectively in decision-making on urban and territorial development

In the formal development planning system in Indonesia, there are musrenbang or community discussions held in the village, continuously to the city/district, provincial and national levels. This is to absorb aspirations for the coming year's development as it is held annually. Musrenbang allows for the participation of various community members, including vulnerable groups. For vulnerable groups, there are also local branches of the Ministry of Women's Empowerment and Child Protection and the Ministry of Social Work, which champion programmes and activities dedicated to vulnerable groups. Their priorities are integrated into the local development plan.

In terms of urban and territorial development, spatial management forums (FPRs) are encouraged to be established at the local level. The Spatial Planning Forum (FPR) is a coordination institution established by the local government to replace the Regional Spatial Planning Coordination Team (TKPRD), in accordance with the mandate of the Job Creation Law and Government Regulation No. 21/2021 on the Implementation of Spatial Planning. FPR aims to strengthen spatial governance by involving various stakeholders, including relevant Regional Apparatus Organisations (OPDs), professional associations, academics, and community leaders. The forum includes local community leaders who have a wealth of knowledge in a particular area. They are the ones who voice the concerns of vulnerable groups including those whose livelihoods may be threatened as certain development proposals are carried out. To date, statistics on the proportion of cities with structures for direct participation of civil society in urban planning and management, which are regular and democratic, have not been maintained.

However, there are efforts to involve direct public participation in spatial utilisation control through online systems in a number of municipalities. Under the auspices of the Ministry of ATR/BPN, Medan City, Malang City and Badung Regency have launched the Spatial Planning

Monitoring and Control System (PATROL TARU) as a consultation and reporting channel for violations of spatial planning and zoning regulations. Since its launch in 2019 and 2020, the three municipalities have received 157 reports and obtained 495 reporters. Each report must be verified on the spot by the relevant Local Government Agency before action is taken, which may include demolition (Forestry, 2021). By 2024, Patrol Taru has been adopted by 19 districts/cities in Indonesia.

2.3.2.4 Support local government associations as promoters and providers of capacity building

The role of local government associations is important to represent the interests of local governments, coordinating with the central government to attract attention and resources to the association's priority areas. In Indonesia, there are several local government associations, such as the All Indonesia Provincial Government Association (APPSI), All Indonesia Regency Association (APKASI), and All Indonesia Regency Council Association (ADKASI). Associations involved in urban issues are the Association of Indonesian Cities (AIM/APEKSI) and the Association of Indonesian City Councils (ADEKSI). Within the local government association, there are 98 cities that are members of APEKSI. These associations enable local governments to participate in national political dialogue, and the definition of public policy, and provide a forum for exchanging good practices and learning from each other.

In 2020-2024, APEKSI organised various activities supported by local/regional committees, with implementation tailored to the creativity and capabilities of each city. APEKSI also receives support from domestic and foreign partners for the implementation of activities. Some of the activities carried out include: 1) Advocacy, namely the Bappeda Forum, the Regional Secretary Forum, Coaching clinics on local government information systems, omnibus law workshops, and discussion of the Job Creation Law Bill and RPP; 2) Capacity Building, in the form of best practice documentation, Knowledge Management Form (KMF)/Climate Change Working Group, capacity building for SDGs, inclusive employment centre mainstreaming programme/inclusive city working group in Pontianak, Palembang, Jogjakarta, and Denpasar in collaboration with GIZ donor IUWASH Tangguh programme towards 100% Access to safely managed drinking water in 6 cities in collaboration with USAID donor, Efforts to address the rights of persons with disabilities in the context of the COVID-19 pandemic and disasters through inclusive city networks in collaboration with UNESCO, tolerant city campaigns in collaboration with TAF and Katadata, and 3) Facilitation of member aspirations through the Regional Commissariat I-VI Work Meeting and APEKSI Outlook as an annual forum that serves as a platform for reflection and projection of urban policies. The total budget for all activities of these three groups of fields during 2020-2024 reached Rp 6.14 billion.

2.3.2.5 Promote capacity-building programmes in the legitimate use of land-based income and finance

The Ministry of Public Works and Housing (PUPR) is actively developing infrastructure financing capacity through the Public-Private Partnership (PPP) and Land Value Capture (LVC) schemes. The Directorate General of Infrastructure Financing of PUPR has organised various trainings and discussions, such as Focus Group Discussion (FGD). The LVC scheme allows the government to utilise the increase in land value due to infrastructure development as an additional source of funding. By using tax and development-based instruments, LVC can increase local revenue through taxes and levies, as well as provide an alternative source of financing for other public sector investments. In an effort to expand the application of this scheme, the Ministry of Public Works has offered 34 PPP projects covering the road and bridge sector, with regulatory support such as Presidential Regulation No. 79 of 2024 on Financing Infrastructure Provision through *Land Value Capture*. This step is in line with the

target of the 2020-2024 National Medium-Term Development Plan (RPJMN), which estimates infrastructure investment needs to reach Rp6,445 trillion, of which around 42% is expected to come from the private sector.

Through the Human Resources Development Agency (STATISTICS INDONESIADM), various trainings have been organised to equip the State Civil Apparatus (ASN) with the necessary knowledge and skills. In September 2021, the PPP training facilitated by the PUPR Region VI Competency Development Centre in Surabaya successfully graduated 34 participants. in 2023, the Road and Bridge Sector PPP Training Participants were 25 people. In 2024, training in preparing preliminary studies of PPP projects in the road and housing sector was attended by 31 ASNs. In 2025 as many as 52 people.

2.3.2.6 Promote local and regional government capacity building programmes in financial planning and management

In Indonesia's bureaucratic structure, there are several functional positions that have an important role in planning and managing state finances, including Planners, State Financial Analysts (formerly known as Budget Analysts), Auditors, and Financial Administrators. The position of Planner focuses on the preparation of development planning documents, policy analysis, and monitoring and evaluation of development programmes at both the central and regional levels. This position is regulated in Minister of PANRB Regulation Number 20 Year 2024. However, the current number of planners is still far from the need; there are around 1,050 active planners, while the ideal need reaches 42,000 people.

Meanwhile, the State Finance Analyst has the main task of designing, analysing, and evaluating fiscal policy, budgeting, and budget implementation within ministries/institutions. The Budget Analyst, which is now transformed into a State Finance Analyst based on Minister of State Apparatus Empowerment and Bureaucratic Reform Regulation Number 11 of 2023, has the main task of analysing fiscal policy, planning and budgeting, and evaluating budget performance. Until 2024, there are 1,587 Budget Analysts spread across 75 ministries/agencies. This transformation aims to simplify 23 functional positions in the field of state finance into 4 main positions, including State Financial Analyst.

Auditors play a role in conducting internal supervision through financial audits, performance audits, as well as reviews and evaluations of budget management and state assets to ensure accountability and compliance with regulations. regulated in PANRB Ministerial Regulation No. 48 of 2022, has a vital role in overseeing and ensuring the accountability of state financial management. However, there is a significant shortfall in the number of auditors; from a national requirement of 46,000 auditors, there are currently only around 17,000 active auditors, so an additional 28,000 auditors are still needed to fulfil the supervisory needs in all provinces and more than 500 districts/cities in Indonesia.

The Financial Planner focuses more on the operational aspects of financial administration, such as cash management, preparation of financial reports, and control of budget implementation. The main difference between these four positions lies in the scope and focus of their duties: planners on policy direction and development, analysts on strategic budget management, auditors on supervision and accountability, and financial administrators on technical financial implementation. These four positions complement each other to create effective, efficient and transparent state financial governance.

The role of financial planning and management human resources is reflected in the performance of local governments. The Domestic Policy Strategy Agency (BSKDN) of the Ministry of Home Affairs (MoHA) awards local governments with the best financial management performance to encourage the improvement of the quality of effective, efficient, transparent, and accountable local financial governance using the Regional Financial

Management Index (IPKD) measurement. The ranking is carried out automatically through the IPKD application system, then provincial governments and municipalities are grouped based on fiscal capacity according to the Minister of Finance Regulation Number 84 of 2023 concerning Regional Fiscal Capacity Maps. This award is given to local governments that have successfully demonstrated superior financial governance based on the six main dimensions of IPKD including Planning; Allocation; Publication and Transparency; Absorption; Regional Financial Condition and Opinion of the Supreme Audit Agency (BPK).

The results of the IPKD measurement for the 2024 measurement year show an increase in data entry participation by local governments. All provinces or 34 provinces have participated in the input. Meanwhile, district government participation reached 95 % or 393 districts participated in the IPKD input, representing a 6 % increase compared to the previous year. The increase also occurred in the participation of municipalities which reached 98 % or 91 cities with an increase of 3 % compared to the previous year which was only 88 cities. local governments that received the best regional financial management awards in fiscal year 2023 include regions with low fiscal capacity consisting of Yogyakarta Special Region Province, Grobogan Regency and Tasikmalaya City; regions with medium capacity, namely West Muna Regency and Denpasar City; and regions with high fiscal capacity consisting of Bangka Regency and Medan City.

2.3.3 Innovation and Information Technology

2.3.3.1 Development of participatory data and user-friendly digital platforms through e-governance and citizen-centred digital governance tools

The development of participatory and easy-to-use data and digital platforms through *e-government* and citizen-centred digital governance tools synergistically encourage the development of Electronic System Utilisation (PSE) by state administrators for public services. This is reflected in the significant increase in the number of registered PSEs from 197 agencies in 2019 to 397 agencies in 2023, consisting of the central government (107 agencies) and local governments (259 agencies) at various levels (158 regencies, 66 cities, and 26 provinces).

Figure 2.12 Distribution of cities/districts participating in the Smart City programme, number of PSEs and their agencies
Source: Ministry of Communications and Digital, 2025

Electronic System Operator PSE refers to any individual, business entity, or government agency that provides, manages, and/or operates electronic systems for its own or other parties' interests. These organisers are required to register their electronic systems with the Ministry of Communications and Digital as a form of supervision and compliance with national standards. PSE registration must be carried out in accordance with applicable regulations, such as Government Regulation Number 71 of 2019 concerning the Implementation of Electronic Systems and Transactions and Minister of Communication and Information Technology Regulation Number 5 of 2020 concerning Private Scope Electronic System Operators.

The increase in the number of registered PSEs is in line with the Smart City development programme initiated by the Ministry of Communication and Information Technology (Kominfo) since 2017, which gradually involves more and more local governments, starting from assisting 100 cities and districts in preparing Smart City master plans and implementing them in their respective regions, the initial stage of implementation (2017-2019) this programme succeeded in assisting 100 cities and districts in preparing Smart City master plans and *quick win* programmes, the expansion of the programme (2020-2022) a total of 191 cities and regencies have been involved in the smart city programme, until by 2024 it reaches 251 cities

and regencies with an inclusion of 174 regencies (41.83%) and 77 cities (78.57%), indicating that the focus on easy-to-use platforms and community involvement goes hand in hand with wider adoption of electronic systems in realising Smart City initiatives throughout Indonesia.

Every government agency that provides electronic public services is responsible for managing data in an integrated, accurate and secure manner in accordance with statutory provisions, including Law No. 27 of 2022 on Personal Data Protection. This management includes data collection from the public or service users, storage in a reliable and protected system, processing to support decision-making, and data exchange between agencies with the principle of interoperability.

2.3.3.2 Use of digital tools, including geospatial information systems to improve urban and territorial planning, land administration, and access to urban services

The New Urban Agenda encourages the use of digital platforms and tools such as Geospatial Information Systems (GIS) that can improve long-term planning and integrated urban and regional design, land administration and management, and access to urban and metropolitan services (NUA 156).

Law No. 4/2011 on Geospatial Information is the main legal basis for the implementation of geospatial information in Indonesia. This law was passed to address the need for accurate, integrated, and accountable spatial data as the basis for development planning, natural resource management, spatial planning, and disaster mitigation. In this Law, geospatial information is divided into two main categories, namely Basic Geospatial Information (IGD) such as boundary data, road networks, topography, and Thematic Geospatial Information (IGT) developed by technical sectors such as forestry, agriculture, or marine.

This law also establishes the Geospatial Information Agency (BIG) as an institution that has the authority to formulate policies, organise, and coordinate the implementation of IGD nationally. One of the important principles in this law is the One Map Policy, which aims to harmonise various sectoral maps from ministries and agencies to avoid overlapping spatial data, which is often a source of conflict.

Furthermore, the Law requires all government agencies to use official geospatial information in planning and decision-making processes, and encourages data disclosure through the establishment of geospatial network nodes at the central and regional levels. Thus, the Geospatial Law 2011 serves as a strong foundation in building an effective, efficient, and inclusive national spatial data governance system to support sustainable development in Indonesia.

Presidential Regulation No. 39/2019 on One Data Indonesia provides an important framework for GIS data management in Indonesia. It encourages standardisation, conformity, accessibility, and more effective use of GIS data. Through the implementation of the One Data Indonesia Policy, GIS information has become an integral part of providing spatial data that is critical for informed decision-making in areas such as spatial planning, natural resource management, and disaster management.

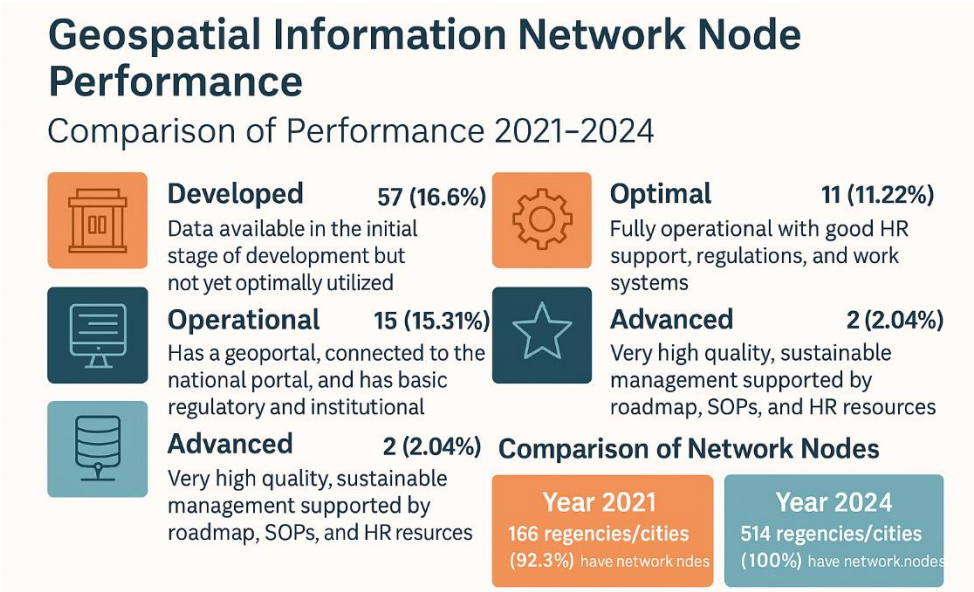

Figure 2.13 Performance status of geospatial information network nodes at city level, 2024
Source: https://simojang.big.go.id/

In the period 2021 to 2024, the implementation of GIS at the city and district levels has progressed rapidly. Based on diagrams and numerical data, the majority of network nodes are still at the "Established" stage with 57 nodes or around 58.16%. This indicates that most agencies are just starting to initiate development and have geospatial data that is starting to be developed but not yet fully utilised optimally. The next category is "Operational" with 15 nodes (15.31%), which are agencies that already have a geoportal and are connected to the national geoportal and have institutional regulations. Followed by "Developing" with 13 nodes (13.27%), which have managed data according to standards and published it in a structured manner. "Optimal" consists of 11 nodes (11.22%), which are fully operational with adequate regulatory and human resource support. Meanwhile, only 2 nodes or 2.04% reached the "Superior" category, which is those with the best data quality, sustainable management processes, and full support in terms of roadmaps, SOPs, and HR development budgets.

Nonetheless, there was an increase from 2021, with around 32.3% (166 out of 514 districts/municipalities) having geographic information network nodes, while by 2024 it expanded to 100%, with all 98 cities and 416 districts in Indonesia having geographic network nodes. In line with this increase, the Government of Indonesia through the Geospatial Information Agency (BIG) evaluates the performance of Geospatial Information Network (JIG) Nodes in ministries/institutions (K/L), and municipalities through the Geospatial Information Network Node Performance Monitoring Information System (SIMOJANG) platform by measuring the effectiveness of management based on 5 (five) components of Geospatial Information Infrastructure (Policy, Institutional, Technology, Standards, Human Resources). In 2024, the majority of network node performance at the city level is in the Built category (58.16%), followed by Operational (15.31%), Developed (13.27%), 11 cities with Optimal performance (11.22%), and 2 (two) cities showing Superior performance (2.04%), namely Tangerang City and Banjarbaru City. Meanwhile, the performance of network nodes at the provincial level shows a different distribution, with 13 provinces in the Built and Operational category, 3 provinces Developing, 5 provinces Optimal, and 4 provinces reaching the Superior category, namely West Java Province, Yogyakarta Special Region Province, South Kalimantan Province, and South Sumatra Province (BIG, 2024).

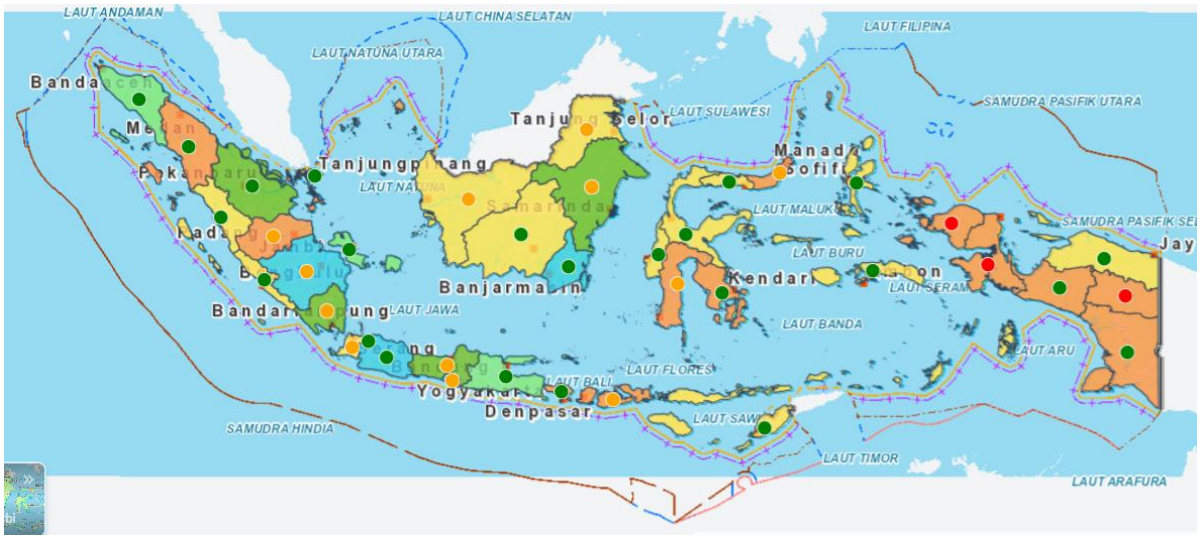

Figure 2.14 Geospatial information network node performance map (by province), 2024
Source: Geospatial Information Agency, 2024
https://simojang.big.go.id/

In Indonesia the use of digital tools, including GIS to improve urban and territorial planning, land administration, and access to urban services, is realised through the master platform Geographic Information System Tata Ruang (GISTARU) and BHUMI developed by the Ministry of Agrarian Affairs and Spatial Planning. GISTARU facilitates access to spatial information, public participation, and development alignment. The site gistaru.atrbpn.go.id houses 4 (four) main information systems, namely: 1) RTR Online provides an overview of spatial planning from the national to district/city level, 2) Interactive RTDTR provides details of zoning regulations and development potential in each location, 3) Real-Time RDTR as a supporting tool for dynamic licensing decision making, 4) RTR Builder as a tool in the spatial plan preparation process. The main difference lies in the scope, function and level of detail of the information presented.

These features allow users to find out about spatial planning in various regions, including details such as zoning, allowable building heights, and environmental aspects, making it easier to plan development and investment. The main benefit of GISTARU is that it makes it easy for the public and businesses to obtain spatial information quickly and accurately, without having to visit government offices. This supports a more efficient licensing process, especially in applying for the Conformity of Space Utilisation Activities (KKPR), which is one of the basic requirements for business licensing. With the RDTR integrated in GISTARU, the licensing process can be done online, accelerate investment, and support development that is in accordance with the established spatial plan.

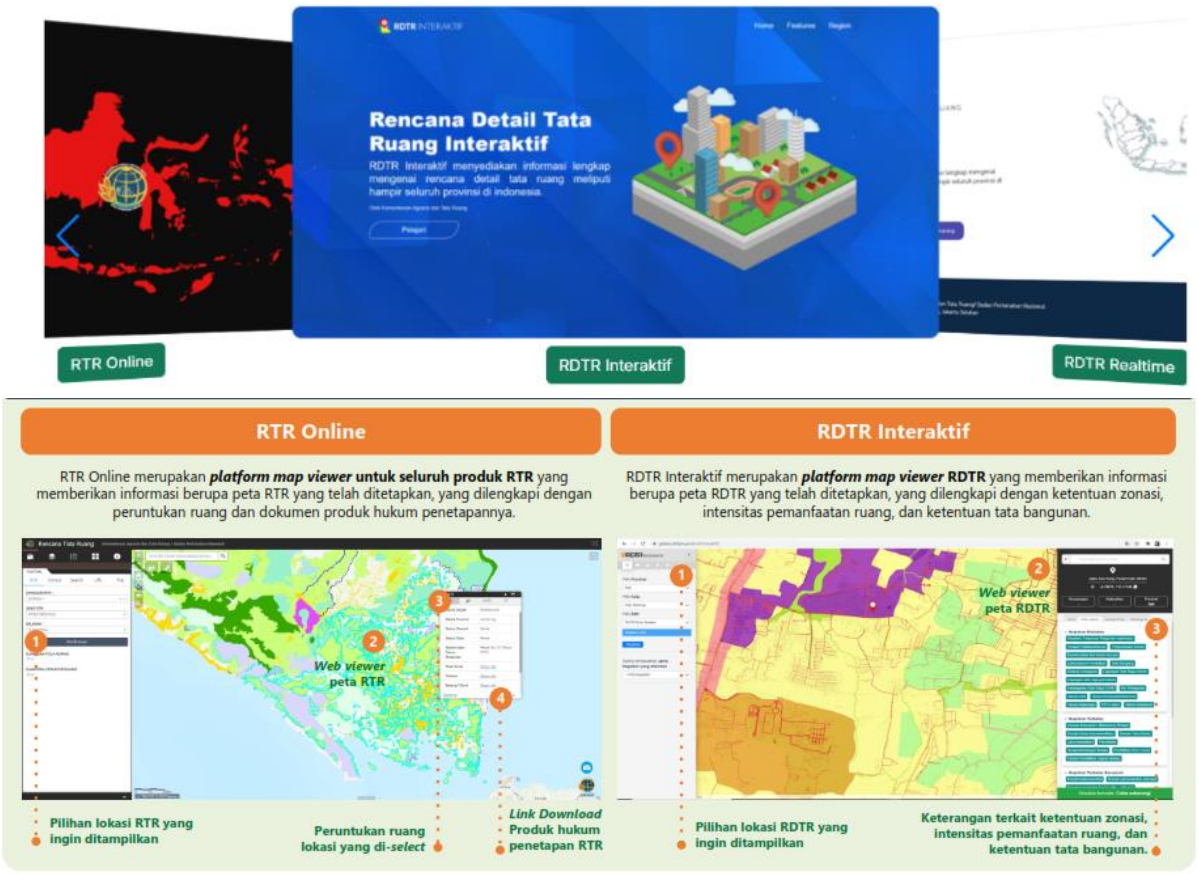

Figure 2.15 GISTARU display
Source: Ministry of ATR/BPN, 2025

Measurable achievements from the implementation of GISTARU include the issuance of 582 Detailed Spatial Plans (RDTR) in the form of laws and regulations by the end of 2024, 309 of which have been integrated with the Online Single Submission (OSS) system. This integration facilitates the business licensing process, which is reflected in the issuance of 1,973 KKPR documents at the central level with an investment value of Rp851.9 trillion, and 6,537 KKPR documents at the regional level with an investment value of Rp216.9 trillion.

The main benefits of BHUMI include increased transparency of land information, easy access to geospatial data, and support for more efficient spatial planning. With features such as interactive maps and integration with the ATLAS geoportal, BHUMI allows users to explore the Ministry's geospatial data online.

To motivate and inspire the improvement of quality geospatial information management, supporting sustainable development in Indonesia, the Bhumandala Award is given by the Geospatial Information Agency (BIG) to local governments that have successfully developed and implemented innovations in the utilisation of geospatial information. The Bhumandala Award was first organised in 2014 and has become a routine agenda to assess the performance of geospatial information network nodes in various agencies.

BHUMI was awarded the Bhumandala Kanaka (Gold Medal) in 2023. Also in 2023, Bandung City won the Bhumandala Award for the category Innovation in Utilisation of Geospatial Information in Governance. This award was given for the best innovation implemented by Bandung City in utilising geospatial information to improve the efficiency and effectiveness of governance. Jabar Province In addition, in 2017, Surabaya City also received the Bhumandala

Award Charter for Innovation in Geospatial Information Utilisation. The award was given for the best innovation through the implementation of 112 Application, which utilises geospatial information to improve emergency services for the community. Representing the small city category, Bontang City won the Bhumandala Award 2024 in the category of Best Geospatial Information Network Node Performance for a number of innovations summarised in good practices.

2.3.3.3 Strengthen capacity at all levels of government to effectively monitor the implementation of urban development policies

Synchronisation between central and local governments in terms of data and information is carried out through the Local Government Information System (SIPD) so that decision-making can be evidence-based and more responsive to local conditions. The history of SIPD development began with the need to overcome overlapping sectoral applications and improve data integration across regions, which was then realised in the form of a national system since 2020.

SIPD displays a variety of measurable data that covers the entire regional development cycle, from planning, budgeting, implementation, to evaluation. Available data includes the Regional Medium-Term Development Plan (RPJMD), Regional Government Work Plan (RKPD), Regional Budget (APBD), performance reports, and indicators of development achievements across sectors, including urban sectors such as infrastructure, housing, environment, education, and health. Used by local governments to prepare planning and budget documents digitally and integrated with the central government system, this system promotes efficiency, consistency, and information disclosure. With this system, local governments can not only plan and report development digitally and in a standardised manner, but also strengthen cross-sectoral engagement and vertical-horizontal coordination. Through SPID, local governments can monitor the implementation of development programmes, the achievement of regional performance indicators, and the consistency between planning documents (such as RPJMD and Renstra OPD) and implementation in the field.

Introduced by the Ministry of Home Affairs, the use of SIPD is regulated by the Minister of Home Affairs Regulation No. 70/2019. This regulation came into effect on 27 September 2019. This change was deemed necessary to move to a more complex regulation, which includes information about regional development, regional finance, and other local government information. The aim is to bring all these aspects together in one integrated system. As an integrated digital platform designed to strengthen the active role of local governments in monitoring, evaluating, and controlling urban planning and development policies that can be accessed at https://sipd.kemendagri.go.id/landing, SPID serves as a tool for local governments to integrate cross-sector data and information from various Regional Apparatus Organisations (OPDs), thereby supporting more accurate, fast, and evidence-based decision-making.

Supervision of the utilisation of SIPD is carried out by the Ministry of Home Affairs through the Directorate General of Regional Development and the Inspectorate General, which conducts monitoring, audits, and technical guidance on compliance and the quality of data input from the regions. SPID also supports the reporting process to the central government in a systematic and accountable manner, while allowing the centre to monitor regional performance in real-time. In the context of urban development, SPID is an important instrument for local governments to oversee the direction of urban development so that it remains aligned with the national vision, as stated in the RPJMN and National Urban Policy 2045. As a form of appreciation for good governance performance, including the use of SIPD, the government also provides awards such as the Innovative Government Award (IGA) and Anugerah Praja Wibawa, which assess aspects of transparency, innovation, and effectiveness of data-based public services.

2.3.3.4 Support all levels of government in data collection, disaggregation and analysis

The Government of Indonesia supports strengthening the capacity of all levels of government-national, provincial, and district/city-in collecting, sorting, and analysing data through the One Data Indonesia initiative and One Map Policy. The One Data Indonesia programme aims to create an integrated, accurate, open, and accessible national data system, so that all stakeholders have the same reference in planning and policy making. On the other hand, the One Map Policy ensures the synchronisation of spatial (geospatial) data that was previously scattered and overlapping between sectors and regions. Through these two initiatives, local governments are encouraged to harmonise their sectoral data with national standards, both in terms of collection methodology, metadata, and interoperability between systems. This approach not only improves the efficiency of development programme planning and implementation-especially in the urban and spatial sectors-but also strengthens accountability and collaboration across sectors.

Satu Data Indonesia was launched under Presidential Regulation No. 39/2019, with the aim of creating better, effective and integrated data governance across government sectors. Until 2024, SDI has shown significant improvements in the provision of better quality and accessible data, including the preparation of Development Priority Data and the National Development Data Master Plan (RID).

The One Map Policy, on the other hand, is implemented based on Presidential Regulation No. 9 of 2016 and updated with Presidential Regulation No. 23 of 2021. The aim is to overcome differences in geospatial data between government agencies by providing one accurate and accountable base map. The One Map Policy Geoportal 2.0 has been launched to support the development of national strategic projects and the development of special economic zones, as well as provide access to geospatial information to the public. These two policies complement each other in supporting more measurable and data-based national development planning, implementation, evaluation and control.

In the SDI scheme, local governments act as data producers, responsible for supplying sectoral and spatial data in accordance with nationally established metadata standards. To ensure data consistency and cohesiveness, each region is required to appoint a Data holders-usually under the Regional Development Planning Agency (Bappeda)-whose task is to collect, verify, and submit data to the central coordinator. At the national level, the coordinating role is held by the Statistics Indonesia (BPS) as the Data Fosterer, Bappenas as the Coordinator, and the Ministry of Communication and Information Technology as the technology infrastructure manager. All data collected is managed through the national data portal (data.go.id) for SDI, and geoportal.satupeta.go.id for One Map Policy. With this system, the national database is managed centrally but based on regional contributions, allowing the central and regional governments to work synergistically to support more accurate, efficient and transparent development planning.

In addition to the One Map Policy and One Data Indonesia, there is also a national platform designed to monitor the achievement of the Sustainable Development Goals (SDGs) quantitatively and qualitatively in the form of the Indonesia SDGs Dashboard. Given that almost 40 % of the SDGs indicators are part of the core indicators proposed for the NUA Monitoring Framework, the dashboard is a good instrument for capacity building on the New Urban Agenda indicators through publicly accessible online publications.

The Indonesia SDGs Dashboard is a digital platform developed by the Ministry of National Development Planning/Bappenas that can be accessed at https://sdgs.bappenas.go.id/dashboard/ . Since its first launch in 2019 in collaboration with UNICEF Indonesia, the dashboard has undergone significant evolution. Version 1.0 featured around 60 indicators with basic visual features such as maps and *indicator trees*. In late 2021,

version 2.0 was launched with a richer display and early analytics features, though still limited to 44 indicators. The peak of development occurred in 2022 with the launch of version 3.0, which now features more than 163 indicators (an increase of 104 from the previous version), uses edition II metadata, and is sourced from official publications such as STATISTICS INDONESIA and ministry/agency sectoral data. This version presents more complete and interactive data on the achievement of SDGs indicators, and is equipped with analytical features that make it easier for stakeholders to formulate data-based policies.

By 2024, Indonesia has achieved 62.5% of the 222 SDGs indicators evaluated, showing significant progress compared to the global average of only 17%. However, around 29.5% of indicators still require special attention due to stagnation or decline. The dashboard also notes that 32 out of 38 provinces have established SDGs local action plans, and 54 SDGs Centres have been established in various universities to support SDGs implementation at the local level.

Dashboard 3.0 includes five main features: an *overview* view *of* national development macro achievements, SDGs indicators aligned with national priorities, as well as advanced analytical features that include regional analysis, multi-dimensional graphs, and evaluation based on specific age groups. In addition to the quantitative aspect, the platform is also equipped with a *Dashboard Repository* that contains qualitative achievements such as *best practice* stories and *human interest stories*, which can be accessed and contributed by the public.

The measurable achievements of the dashboard implementation are significant. Until 2023, the indicators displayed have increased rapidly compared to the previous version, and data can be tracked interactively by province and district/city. This proves that the Indonesia SDGs Dashboard is not only a reporting tool, but also a strategic instrument to formulate data-based policies in supporting the national agenda towards achieving the 2030 Agenda. By providing transparent and publicly accessible data, Dashboard SDGs Indonesia plays an important role in encouraging the participation of various parties, including local governments, academics, and communities, in efforts to achieve sustainable development in Indonesia.

Following the SDGs Secretariat's track record in presenting dashboards, Habitat National Secretariat is also developing a NUA dashboard that will display the achievements of NUA implementation per indicator according to periodic reporting. It is hoped that with this NUA dashboard, more parties will get to know about the NUA indicators, be involved in the process of preparing the NUA implementation report, and help its implementation in the field.

Section 3 Strategy Forward

NUA Implementation in Indonesia: Challenges, Initiatives and Future Strategies

This report is published amidst the Government of Indonesia's ongoing efforts to reimagine the urban system to address key challenges such as logistics inefficiency, uncontrolled urbanisation, and the need for culture-based development, creative economy, and human capital enhancement. Major initiatives such as the relocation of the National Capital City (IKN), agrarian reform, and National Strategic Projects (PSN) are important elements in shaping Indonesia's future urban system.

The government is also currently drafting urbanisation regulations that open up space for collaboration between the central and local governments, strengthening urban management capacity across levels of government. Regional heads, especially mayors and regents, have shown significant innovation in public services amidst limited fiscal and institutional resources.

Achievements and Good Practices in NUA Implementation

A number of innovations are already underway in the housing sector, including financing reforms, local planning, strengthening standards, and integration with spatial planning. Policies such as land banks, property market monitoring, and local tax optimisation are being utilised to provide decent housing more inclusively.

NUA encourages not only knowledge transfer, but also the adaptation of local innovations. The success of a multidimensional approach to slum upgrading through government, private, and civil society collaboration shows that NUA practices are already underway at various levels.

Normatively, Minister of Bappenas Decree No. 67/2021 has integrated the NUA into the national vision of the NTFP. However, its implementation is still scattered across various ministries and agencies. Therefore, strengthening cross-sector coordination is crucial to unify policy directions such as the National Urban Policy.

Government Regulation No. 12/2021 that classifies small, medium and large cities is an important milestone in encouraging recognition of urbanisation dynamics at all levels, including peripheral and rural areas. However, there are still unclear boundaries between urban and rural areas, which has implications for planning and budgeting. This reinforces the importance of data integration between STATISTICS INDONESIA, ministries/agencies, and local governments.

Funding Issues and the Role of Local Government

Local government associations underlined that fiscal support from the central government is still inadequate, despite them being key actors in the implementation of the SDGs and NUAs. Therefore, closer partnerships with local associations, universities, and civil society should continue to be strengthened to ensure the sustainability of local initiatives.

The national development vision contained in the Asta Cita of President-elect Prabowo Subianto's administration (2024-2029) emphasises sustainable, inclusive and sovereign development. Elements directly related to urban development include the provision of basic infrastructure, public housing, downstream industries in cities, and city resilience to climate change.

Changes in the structure of the ministry are also an important dynamic. The planned separation of the Ministry of Public Works shows the government's efforts to focus more sharply on housing and infrastructure. This separation has the potential to improve the efficiency of housing and settlement area management, including integration with the spatial system and the development of smart cities.

The Strategy Ahead: Strengthening NUA Implementation in Indonesia

To strengthen the implementation of the New Urban Agenda (NUA) at the national and sub-national levels, Indonesia needs a more structured and participatory strategy. One important step is the dissemination of the NUA implementation guidebook that has been published by the government. These guidelines need to be widely disseminated to all local governments, especially small and medium-sized cities, through training, online seminars, and collaboration with universities for equitable understanding and implementation. In addition, strengthening the integrated information system is crucial, including the development of a NUA dashboard that integrates spatial data, SDGs indicators, good practices, and supporting regulations to support evidence-based planning in the regions.

To support collaboration and knowledge exchange, the National Urban Forum (NUF) should be strengthened as a space for policy dialogue across sectors and regions. Regularly organising NUFs can expand learning networks and encourage the spread of local innovations. Increased city-to-city cooperation, both domestic and international, should also be facilitated. Organisations such as APEKSI and UCLG ASPAC have a strategic role in bringing together cities with similar challenges and building solidarity among cities in the Global South in order to achieve sustainable urbanisation. On the other hand, systematic capacity building of local governments is urgently needed, through continuous training and mentoring schemes in the areas of planning, spatial planning, financing, and area management. In this regard, partnerships with higher education institutions and professional associations will strengthen the learning ecosystem and capacity building in a comprehensive and sustainable manner.

NUA implementation in Indonesia has demonstrated a strong foundation through various local initiatives and national regulatory support. However, achieving true urban transformation requires a structured, inclusive and data-driven strategy. By strengthening coordination, cooperation and information systems, Indonesia can realise more resilient, equitable and sustainable cities.

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IMPLEMENTATION OF NEW URBAN AGENDA

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LIST OF ABBREVIATIONS

3T	: *Terdepan, Terluar, dan Tertinggal* / Frontier, Outermost, and Underdeveloped
ADB	: Asian Development Bank
AI	: Artificial Intelligent
APBD	: *Anggaran Pendapatan dan Belanja Daerah* / Regional Government Budget
APBDes	: *Anggaran Pendapatan dan Belanja Desa* / Village Revenue and Expenditure Budget
APBN	: *Anggaran Pendapatan dan Belanja Negara* / State Revenue and Expenditure Budget
APEKSI	: *Asosiasi Pemerintah Kota Seluruh Indonesia* / Association of Indonesian Municipalities
APJ	: *Alat Penerangan Jalan* / Street Lighting Equipment
APQO	: Asia Pacific Quality Organization
ASCN	: ASEAN Smart Cities Network
Asean ICT	: Association of Southeast Asian Nations Information and Communication Technology
ASN	: *Aparatur Sipil Negara* / Civil Servant
ATCS	: Advanced Traffic Control System
Awas Si Koma	: *Kawasan Pengelolaan Sampah Menuju Sirkular Ekonomi Mandiri* / Waste Management Area Towards an Independent Circular Economy
BaApik	: *Banjarmasin Aplikasi Pasien Internal Kesehatan* / Banjarmasin Internal Health Patient Application
Bappeda	: *Badan Perencanaan Pembangunan Daerah* / Development Planning Agency at Sub-National Level
BBKSDA	: *Balai Besar Konservasi Sumber Daya Alam* / Natural Resources Conservation Center
BIG	: *Badan Informasi Geospasial* / Geospatial Information Agency
BPKAD	: *Badan Pengelola Keuangan dan Aset Daerah* / Regional Financial and Asset Management Agency
BKKD	: *Bantuan Keuangan Khusus Desa* / Special Village Financial Assistance
BKM	: *Badan Keswadayaan Masyarakat* / Community Empowerment Agency
BKPM	: *Badan Koordinasi Penanaman Modal* / Capital Investment Coordinating Board
BLUD	: *Badan Layanan Umum Daerah* / Regional Public Service Agency
BMKG	: *Badan Meteorologi, Klimatologi, dan Geofisika* / Metereology, Climatology, and Geophysics Agency
BNN	: *Badan Narkotika Nasional* / National Narcotics Board
BPBD	: *Badan Penanggulangan Bencana Daerah* / Regional Disaster Management Agency
BPKP	: *Badan Pengawasan Keuangan dan Pembangunan* / Financial and Development Supervisory Agency
BPR	: *Badan Perkreditan Rakyat* / People's Credit Bank
BP2P	: *Balai Pelaksana Penyediaan Perumahan* / Housing Provision Implementation Center
BP2BT	: *Bantuan Pembiayaan Perumahan Berbasis Tabungan* / Savings-Based House Financing Assistant

BPS : *Badan Pusat Statistik* / Statistics Indonesia
BP Tapera : *Badan Pengelola Tabungan Perumahan Rakyat* / Public Housing Savings Management Agency
BREXIT : Braille E-tickets and Extraordinary Access for Visual Impairments
BTN : *Bank Tabungan Negara* / State Savings Bank
BSF : Black Soldier Fly
BSI : *Bank Syariah Indonesia* / Indonesian Islamic Bank
BUMD : *Badan Usaha Milik Daerah* / Regional Owned Enterprises
BUMDes : *Badan Usaha Milik Desa* / Village Owned Enterprises
BUMN : *Badan Usaha Milik Negara* / State Owned Enterprises
CAP : Climate Action Plan
CBN : PT Cyberindo Aditama (internet provider)
CCTV : Closed Circuit Television
CCW : Contact Center World
CI : Conservation International
CNN Indonesia: Cable News Network Indonesia
CPNS : *Calon Pegawai Negeri Sipil* / Civil Servant Candidate
CRIC : Climate Resilient and Inclusive Cities
CSR : Corporate Social Responsibility
CSRRP : Central Sulawesi for Rehabilitation and Reconstruction Project
DAK : *Dana Alokasi Khusus* / Specific Allocation Budget
DAU : *Dana Alokasi Umum* / General Allocation Budget
DCKPKP : *Dinas Cipta Karya, Perumahan, dan Kawasan Permukiman* / Department of Public Works, Housing, and Settlements
Dekranasda : *Dewan Kerajinan Nasional Daerah* / Regional National Crafts Council
DFAT : Department of Foreign Affairs and Trade
DGA : Digital Government Award
Dishub : *Dinas Perhubungan* / Department of Transportation
Diskominfo : *Dinas Komunikasi dan Informatika* / Department of Communication and Information
DKI Jakarta : *Daerah Khusus Ibukota Jakarta* / Special Capital Region of Jakarta
DPMD : *Dinas Pemberdayaan Masyarakat dan Desa* / Department of Community and Village Empowerment
DPRD : *Dewan Perwakilan Rakyat Daerah* / Regional People's Representative Council
DPRKPP : *Dinas Perumahan Rakyat dan Kawasan Permukiman serta Pertanahan* / Department of Public Housing, Settlements and Land Affairs
DSA : *Desa Sejahtera Astra* / Astra Prosperous Village
DSS : Decision Support System
DTKS : *Data Terpadu Kesejahteraan Sosial* / Integrated Social Welfare Data
EBT : *Energi Baru dan Terbarukan* / New and Renewable Energy
ERP : Enterprise Resource Planning
ETLE : Electronic Traffic Law Enforcement
FMC : Fixed Mobile Convergence
FWA : Fixed Wireless Access
G2P : Government to Person
GEDSI : Gender Equality, Disability, and Social Inclusion
GIS : Geographic Information System

HVAS	: High Volume Air Sampler
JakLingko	: *Jakarta Lingkungan Koperasi* / Jakarta Environmental Cooperative
JKP	: *Jaminan Kehilangan Pekerjaan* / Job Loss Guarantee
IAI	: *Ikatan Arsitek Indonesia* / Indonesian Architect Association
IGA	: Innovative Government Award
IKLH	: *Indeks Kualitas Lingkungan Hidup* / Environmental Quality Index
IKN	: *Ibukota Nusantara* / New Capital City
IMD	: Institute Management and Development
IoT	: Internet of Things
IRR	: Internal Rate of Return
IsDB	: Islamic Development Bank
I-SIM for Cities	: Integrated Sustainability Indonesia Movement for Cities
ISP	: Internet Service Provider
ITS	: Institut Teknologi Sepuluh Nopember / Sepuluh November Institute of Technology
KAI	: *Kereta Api Indonesia* / Indonesian Railways
K3	: *Keselamatan dan Kesehatan Kerja* / Occupational Health and Safety
KEK	: *Kawasan Ekonomi Khusus* / Special Economic Zone
Kementerian KLHK	: *Kementerian Lingkungan Hidup dan Kehutanan* / Ministry of Environment and Forestry
Kementerian PANRB	: *Kementerian Pendayagunaan Aparatur Negara dan Reformasi Birokrasi* / Ministry of State Apparatus Utilization and Bureaucratic Reform
Kementerian PPPA	: *Kementerian Pemberdayaan Perempuan dan Perlindungan Anak* / Ministry of Women's Empowerment and Child Protection
Kementerian PUPR	: *Kementerian Pekerjaan Umum dan Perumahan Rakyat* / Ministry of Public Works and Housing
KIJB	: *Kompetisi Inovasi Jawa Barat* / West Java Innovation Competition
KLA	: *Kota Layak Anak* / Child Friendly City
Komnas HAM	: *Komisi Nasional Hak Asasi Manusia* / National Commission on Human Rights
KMT	: *Kartu Multi Trip* / Multi Trip Card
KOTAKU	: *Kota Tanpa Kumuh* / Cities wihout Slums
KPBU	: *Kerjasama Pemerintah dengan Badan Usaha* / Public-Private Partnership
KPR FLPP	: *Kredit Pemilikan Rumah Fasilitas Likuiditas Pembiayaan Perumahan* / Home Ownership Credit Housing Financing Liquidity Facility
KPR	: *Kredit Pemilikan Rumah* / Home Ownership Credit
KRL	: *Kereta Rel Listrik* / Commuter Electric Rail Train
KSB	: *Kelompok Siaga Bencana* / Disaster Preparedness Group
KTT ASEAN	: *Konferensi Tingkat Tinggi* ASEAN / ASEAN Summit
LEMKAPI	: *Lembaga Kajian Strategis Kepolisian* / Police Strategic Studies Institute
LGSP	: Local Governance Support Program
LKM	: *Lembaga Keuangan Multilateral* / Mulilateral Financial Institutions
LKPD	: *Laporan Kinerja Pemerintah Daerah* / Regional Government Performance Report

LPPM	: *Lembaga Penelitian dan Pengabdian Masyarakat* / Institute for Research and Community Service
LRT	: Light Rapid Transit
LSM	: *Lembaga Swadaya Masyarakat* / Non-Governmental Organization
MBR	: *Masyarakat Berpenghasilan Rendah* / Low Income Community
MCK	: *Mandi Cuci Kakus* / Sanitary Facility
MRT	: Mass Rapid Transit
MTN	: Medium Term Notes
NEET	: Not in Education, Employment, or Training
NGO	: Non-Government Organization
NIB	: *Nomor Induk Berusaha* / Business Identification Number
NRW	: Non-Revenue Water
NUA	: New Urban Agenda
OICCA	: Organization of Islamic Cooperation Cultural Activity
OSS	: Online Single Submission
P3KE	: *Pensasaran Percepatan Penghapusan Kemiskinan Ekstrem* / Targeted Acceleration of Extreme Poverty Elimination
PAD	: *Pendapatan Asli Daerah* / Locally-Generated Revenue
PBG	: *Persetujuan Bangunan Gedung* / Building Approval
PCC	: Padang Command Center
PCM	: Phase Change Material
PDAM	: *Perusahaan Daerah Air Minum* / Local Water Company
PDB	: *Produk Domestik Bruto* / Gross Domestic Product
PDTT	: *Kementerian Desa dan Pembangunan Daerah Tertinggal* / Ministry of Villages and Development of Disadvantaged Regions
PEKA	: *Peta Kerawanan Narkoba* / Drug Vulnerability Map
PEP DMF	: PT Pertamina EP Donggi Matindok Field
Perumda AM	: *Perusahaan Umum Daerah Air Minum* / Regional Public Drinking Water Company
PERWALI	: *Peraturan Walikota* / Mayor's Regulations
PHK	: *Pemutusan Hubungan Kerja* / Work Termination
PIA	: Plan International Australia
PIRT	: *Pangan Industri Rumah Tangga* / Food Industry Home Production Permit
PJU	: *Penerangan Jalan Umum* / Public Street Lighting
PJPK	: *Penanggung Jawab Proyek Kerjasama* / Project Cooperation Responsible Person
PKA	: *Pusat Kreativitas Anak* / Children's Creativity Center
PKP	: *Pengembangan Kawasan Permukiman* / Residential Area Development
PLN	: *Perusahaan Listrik Negara* / Electricity State Company
PLTMH	: *Pembangkit Listrik Tenaga Minihidro* / Mini Hidro Power Plant
PLTP	: *Pembangkit Listrik Tenaga Panas* / Thermal Power Plant
PLTS	: *Pembangkit Listrik Tenaga Surya* / Solar Power Plant
PMN	: *Penyertaan Modal Negara* / State Capital Participation
PNS	: *Pegawai Negeri Sipil* / Civil Servant
Pokja PKP	: *Kelompok Kerja Perumahan dan Kawasan Permukiman* / Housing and Residential Areas Working Group
POLRI	: *Kepolisian Negara Republik Indonesia* / National Police of the Republic of Indonesia

PP : *Peraturan Pemerintah* / Government Regulation
PPDPP : *Pusat Pengelolaan Dana Pembiayaan Perumahan* / Housing Finance Fund Management Center
PPID : *Pejabat Pengelola Informasi dan Dokumentasi* / Information and Documentation Management Officer
PPN : *Pajak Pertambahan Nilai* / Value-Added Tax
Proklim : *Program Kampung Iklim* / Climate Village Program
PSLH : *Pusat Studi Lingkungan Hidup* / Center for Environmental Studies
PUG : *Pengarusutamaan Gender* / Gender Based Violence
RAI : *Rencana Aksi Perubahan Iklim* / Climate Change Action Plan
RBRA : *Ruang Bermain Ramah Anak* / Child Friendy Play Space
RDF : Refused Derived Fuel
RDTR : *Rencana Detail Tata Ruang* / Detailed Spatial Plan
RISHA : *Rumah Instan Sederhana Sehat* / Simple Healthy Instant House
RITTA : *Rumah Inti Tumbuh Tahan Gempa* / Core House Grows Earthquake Resistant
RLTH : *Rumah Tidak Layak Huni* / Uninhabitable House
RP2KPKP : *Rencana Pencegahan dan Peningkatan Kualitas Permukiman Kumuh Perkotaan* / Urban Slum Prevention and Improvement Plan
RP3KP : *Rencana Pembangunan dan Pengembangan Perumahan dan Kawasan Permukiman* / Housing and Settlement Area Development Plan
RPJMD : *Rencana Pembangunan Jangka Menengah Daerah* / Regional Medium Term Development Plan
RPJMN : *Rencana Pembangunan Jangka Menengah Nasional* / National Medium Term Development Plan
RPKD : *Rencana Penanggulangan Kemiskinan Daerah* / Regional Poverty Alleviation Plan
RTH : *Ruang Terbuka Hijau* / Open Green Space
RTP : *Ruang Terbuka Publik* / Open Public Place
RTRW : *Rencana Tata Ruang Wilayah* / Spatial Plan
RSBN : *Rehabilitasi Sosial Tunanetra* / Social Rehabilitation of the Blind
RSUD : *Rumah Sakit Umum Daerah* / District Hospital
Rusun : *Rumah Susun* / Flats
Rusunawa : *Rumah Susun Sederhana Sewa* / Rental Apartments
RW : *Rukun Warga* / Citizen Association
SAKIP : *Sistem Akuntabilitas Kinerja Instansi Pemerintah* / Government Agency Perfomance Accountability System
SBUM : *Subsidi Bantuan Uang Muka* / Down Payment Assistance Subsidy
SCI : Smart City Index
SD : *Sekolah Dasar* / Elementary School
SDGs : Sustainable Development Goals
SDM : *Sumber Daya Manusia* / Human Resources
SEAR : South-East Asia Region
Seralikoci : *Sekolah Ramah Lingkungan Kota Cimahi* / Environmental Friendly School in Cimahi City
SIK : *Surat Izin Kerja* / Work Permit Letter
SIKTTK : *Surat Izin Tenaga Kerja Teknis Kefarmasian* / Pharmaceutical Technical Workfoce Permit

Simonik : *Sistem Monitoring dan Evaluasi Pelayanan Publik* / Public Service Monitoring and Evaluation System
Simpeg : *Sistem Informasi Kepegawaian Daerah* / Regional Personnel Information System
SIP : *Surat Izin Praktek* / Practice License
SIPPO : *Surat Izin Penyelenggaran Optikal* / Optical Organization Permit
SKRK : *Surat Keterangan Rencana Kota* / City Plan Certificate
SLF : *Sertifikat Laik Fungsi* / Functional Eligibility Certificate
SLS : *Sertifikat Laik Sehat* / Healthy Eligibility Certificate
SMA : *Sekolah Menengah Atas* / Senior High School
SMF : *Sarana Multigriya Finansial* / Multigriya Financial Facilities
SMV : Special Mission Vehicle
SNI : *Standar Nasional Indonesia* / Indonesian National Standard
SPAB : *Satuan Pendidikan Aman Bencana* / Disaster Safe Education Unit
SPALDT : *Sistem Pengelolaan Air Limbah Domestik Terpusat* / Centralized Domestic Wastewater Management System
SPAM : *Sistem Penyediaan Air Minum* / Drinking Water Supply System
SPBE : *Sistem Pemerintahan Berbasis Elektronik* / Electronic-Based Government System
SPDT : *Sistem Penanggulangan Gawat Darurat Terpadu* / Integrated Emergency Response System
SSO : Single Sign-On
SSW : Surabaya Single Window
TDG : *Tanda Daftar Gudang* / Warehouse Registration Certificate
TDI : *Tanda Daftar Industri* / Industrial Registration Certificate
TDMRC : Tsunami and Disaster Mitigation Research Center
TDP : *Tanda Daftar Perusahaan* / Certificate of Company Registration
TDUP : *Tanda Daftar Usaha Pariwisata* / Tourism Business Registration Certificate
TJSL : *Tanggung Jawab Sosial dan Lingkungan* / Social and Environmental Responsibility
TIK : *Teknologi Informasi Komunikasi* / Communication Information Technology
TMMD : *Tentara Manunggal Membangun Desa* / Unity Army Builds Village
TNC : The Nature Conservancy
TNP2K : *Tim Nasional Percepatan Penanggulangan Kemiskinan* / National Team for the Acceleration of Poverty Reduction
TOD : Transit Oriented Development
TPB : *Tujuan Pembangunan Berkelanjutan* / Sustainable Development Goals
TP PKK : *Tim Penggerak Pemberdayaan dan Kesejahteraan Keluarga* / Family Empowerment and Welfare Movement Team
TPST : *Tempat Pengolahan Sampah Terpadu* / Integrated Waste Processing Place
TPA : *Tempat Pembuangan Akhir* / Sanitary Landfills
TPS3R : *Tempat Pengolahan Sampah dengan Prinsip* Reduce, Reuse dan Recyle / Reduce, Reuse, and Recycle Waste Management Site
TSP : *Total Partikel Tersuspensi* / Total Suspended Particles
UCLG ASPAC : United Cities and Local Governments Asia Pacific
UGM : *Universitas* Gadjah Mada / Gadjah Mada University
UMKM : *Usaha Mikro, Kecil, dan Menengah* / Micro, Small, and Medium Enterprises
UNDP : United Nations Development Programme

UNESCO	: The United Nations Educational, Scientific, and Cultural Organization
UN-Habitat	: United Nations Human Settlements Programme
UPT PLCD	: *Unit Pelaksana Teknis Pengelolaan Limbah Cair Domestik* / Technical Service Unit for Domestic Liquid Waste Management
USAID	: United States Agency for International Development
UUPA	: *Undang-Undang Pokok Agraria* / Basic Agrarian Law
VLR	: Voluntary Local Review
WASH	: Water, Sanitation, and Hygiene
WeGO	: World Smart Sustainable Cities Organization
WfW	: Water for Women
WHO	: World Health Organization
WWF	: Worldwide Fund for Nature
YKL	: *Yayasan Konservasi Laut* / Marine Conservation Foundation
ZoSS	: *Zona Selamat Sekolah* / School Safe Zone

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	Central Sulawesi	Sigi Regency	2.3.1.4	Building Back Better: Government and World Bank Collaboration in Post-Disaster Urban Rehabilitation	68
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INTRODUCTION

Profound examples of how to implement the New Urban Agenda (NUA) can be seen through the diverse practices undertaken by every stakeholder, including city and district governments, provinces, communities, to the private sector and central government. The three principles set out in the NUA—leaving no one behind, ensuring a sustainable and inclusive urban economy, and ensuring environmental sustainability—are inherently explained in the following 74 cases.

The collected good practice cases were obtained from various sources, including the SDGs dashboard and APEKSI's good practice book, by prioritising a set of criteria. These criteria are representation of NUA indicators, achievement of awards and replication, and prioritised locations outside Java to provide a more comprehensive picture of the progress of NUA implementation amid the diverse conditions of cities in Indonesia, ranging from small, medium, to metropolitan cities.

The distribution of good practices locations is widely spread among various cities and regencies, such as Gresik, Bontang, Batam, Kediri, Malang, Denpasar, Jakarta, and Banyuwangi, which reflects the geographical diversity and character of regions in Indonesia, covering almost all major islands in the archipelago. On Java, cities such as Jakarta, Tangerang, Bandung, Cimahi, Yogyakarta, Kediri, Malang, Pekalongan, Kendal, Gresik, and Banyuwangi are dominant, showing relatively high population density and infrastructure development. In Sumatra, locations such as Aceh, Padang, and Pagar Alam represent western Indonesia region with strong economic and cultural potential. In the centre of Indonesia, cities such as Batam in the Riau Islands, Denpasar in Bali and Kupang in East Nusa Tenggara showcase the importance of coastal and island regions in supporting national connectivity. The spread in Kalimantan includes Bontang, Balikpapan, Samarinda, Kutai Kartanegara, and Banjarmasin, which are becoming new centres of economic growth and development sites for the nation's capital. Meanwhile, in Sulawesi, locations such as Parepare, Makassar, Palu, and Jeneponto showcase the region's strategic position in the fisheries, maritime, and natural resources sectors. In Eastern Indonesia, Ambon, Raja Ampat, and North Lombok show a distribution that extends to the islands, reflecting the need for development policies that are adaptive to diverse geographical conditions. Based on the location of good practices, several cities provide examples of NUA implementation in more than one indicator. These cities include Jakarta, Surabaya, Bandung, Yogyakarta, Samarinda, and Makassar.

As a separate part of the main NUA Implementation report (book 1), this good practice report (book 2) serves to complement and provide a practical overview of the implementation of each indicator contained in the NUA. This report is organized to follow the NUA reporting structure corresponding to its sub-chapters and related indicators. In terms of content, not all the 77 NUA indicators are represented by good practices due to the difficulty in discovering relevant practices equipped with measurable statistics that demonstrate the success of implementing related programs in the field. Nonetheless, the 74 cases representing 65 indicators should provide a comprehensive view of each aspect reflecting the three NUA principles.

Some indicators include several good practices. On the aspect of environmentally sound development, indicator No. 54 The existence of an enforced coastal and/or land management plan, for example, is represented by the good practices of Coral Reef Conservation in Raja Ampat District and Turtle Conservation in Sorong District as well as Community-based Marine Conservation in Makassar City. On the aspect of urban financing, indicator No. 67 The existence of at least one financial or infrastructure fund available to local/sub-national governments, is also represented by two good practices, Madiun District pioneering the Availability Payment scheme in the provision of street lighting equipment and the Management of Special Allocation Funds in Support of Infrastructure Development in Payakumbuh City.

Although it is undeniable that cities and districts on the island of Java continue to dominate sustainable urban development, the distribution of these best practices' locations demonstrates that it is found nearly evenly. This further demonstrates how crucial a region-based development strategy is to successfully and sustainably tackling the unique problems faced by each region.

1.1.1.1. Eradicate poverty in all its forms

No. 1 Proportion of People Below the International Poverty Line by Sex and Age at the National Urban Level

Astra Prosperous Village Programme

PT Astra International Tbk launched the Astra Prosperous Village (*Desa Sejahtera* Astra /DSA) Programme in 2018 to empower village communities by developing the local potential in the agriculture, fisheries, and tourism and culture sectors. By the end of 2023, DSA had reached 1,196 villages in 35 provinces, created 20,370 jobs, and exported village products to 26 countries with an export valuation of Rp223 billion (equivalent to more than US$14 million). The community's average income rose by 80%, and 64 MSMEs were able to upgrade their capacities, competencies, and quality standards.

DSA focuses on fostering village-based entrepreneurship by involving multiple stakeholders, including the community, universities, NGOs, start-ups, government (both central and regional) and financial institutions. Activities within DSA range from training and mentoring, institutional strengthening, facilities and infrastructure assistance, capital facilitation and export marketing, to creating a model to become an independent village.

DSA prepares 4 clusters based on featured products: 1) coffee cluster, 2) agricultural and processed cluster, 3) marine and fisheries cluster, and 4) tourism and craft cluster. The programmes include:

1) **Use of new methods or technologies in collaboration** with universities and colleges as well as *start-ups* or business groups, the DSA Programme seeks to introduce new methods or technologies to the community related to fostering entrepreneurship. For example, for the coffee cluster DSA has introduced modern coffee processing

technology, initial networking between coffee farmers and international coffee bodies to get familiar with standardisation prior to penetrating the international market;

2) **Mentoring**. The community has become more independent, dare to be creative and confident with their village potential resources with the support and assistance of the mentors. Furthermore, the community committed to ensure that the company's program can be sustainable, such as creating an autonomous legal entity, considering medium and long-term strategies, and constructing a sustainable revenue stream plan;
3) **Empowerment of women, people with disabilities, and other groups**. In running the DSA Programme, it seeks to empower all groups, including women and people with disabilities. In addition, to encourage financial inclusion, business groups are ensured to have financial access to formal financial institutions;
4) **Publication of Inspiration.** The DSA programme always strives to provide reports in the form of *press releases* in every activity carried out as positive inspiration for the wider community.

One example of a successful implementation of the DSA programme is in Tajur Halang Village, Bogor, through *Boja Farm*. There, the community develops organic farming where the produce is processed and sold, as well as managing lodging and restaurants. *Boja Farm*'s products have been certified by the United States, Europe, and Japan, and exported US$100,000 worth of organic fruit chips to Canada, with additional export contracts worth US$700,000 for organic spices, coffee, chocolate, and organic fruit chips by 2024.

DSA has also been carried out in 3T (Frontier, Outermost, and Disadvantaged) areas, such as Aceh Tengah which applies to several villages in Silih Nara and Bebesan Districts, including Wihni Durin Village, Arul Relem Village, Wih Masin Village, Bies Mulie Village, and Blang Gele Village. Additionally, in Mahakam Ulu Regency, there are 76 villages in 3T areas that are Astra's fostered partners. The challenges of DSA in 3T areas are mainly related to accessibility, quality of human resources, and limited infrastructure. This hampers the distribution of goods, services, and information, and makes it difficult to access public services, such as education and health.

DSA proves that *stakeholder* collaboration can drive the village economy in an inclusive and sustainable manner through several recommendations including: improvement of technology and innovation through digitalisation of MSMEs and smart farming; strengthening human resources through technical training; market expansion through international certification and global branding; improvement of infrastructure facilities and infrastructure; and sustainability recommendations through the establishment of BUMDes and funding schemes to ensure the program continues to run independently without relying on Astra's assistance.

Source:
https://sdgs.bappenas.go.id/repository/public/22119 ;
https://lestari.kompas.com/read/2024/12/06/091500686/desa-sejahtera-astra-dukung-ekonomi-masyarakat-yang-ramah-lingkungan- https://www.topbusiness.id/107225/desa-sejahtera-jadi-program-csr-unggulan-astra-international.html;

1.1.1.2. Addressing inequalities in urban areas by promoting opportunities and sharing benefits equally

No. 10: Unemployment Rate by Sex, Age, Persons with Disabilities and by City

Pre-Employment Card Programme: A Success Story of Public Service Transformation and Breakthrough Financial Inclusion in Indonesia

The Pre-Employment Card (*Kartu Prakerja*) programme has been a success story in the transformation of public services in Indonesia, as well as a breakthrough in promoting financial inclusion and poverty reduction. The initiative uses an innovative *start-up* approach and leverages the national digital infrastructure to reach millions of people from diverse backgrounds.

The programme, launched in 2020, comes as a response to the immense challenges of the *COVID-19* pandemic that led to a surge in unemployment and economic pressure. Being fully digital, the programme provides access to skills training for the community through partnerships with various online platforms. Across 514 districts and cities, more than 12 million beneficiaries, without time and space constraints, have registered, attended training, received certificates, and accessed information on job vacancies and self-employment opportunities.

Kartu Prakerja also offers post-training cash incentives distributed through a variety of financial channel options, including banks and *fintech* providers. As such, the programme pioneers a digital *Government-to-Person* (G2P) model that accelerates financial inclusion. Beneficiaries can choose payment through BNI, BCA, LinkAja, OVO, GoPay, or Dana.

More than just job training, the Pre-Employment Card has a real impact on multi-dimensional poverty reduction. Studies by J-PAL Southeast Asia and Presisi note that the programme beneficiaries' income rose by 10-12% which means also an increased in purchasing power and household economic resilience. Additionally, the program makes learning more accessible to underprivileged individuals, women, persons with disabilities, and areas outside of Java—groups that have frequently been excluded from traditional training programs.

The initiative not only promotes new micro-entrepreneurs but also enhances employability skills. Participants mostly use the incentives they receive to launch new firms, and the training they receive improves their soft, financial, and digital abilities. In this approach, the pre-employment card improves long-term investments like health and education as well as family welfare.

Such positive impact brought international recognitions. The programme has received awards from various institutions, such as the *Asian Development Bank* (ADB), UNDP, and *UNESCO*. In addition, a joint research by TNP2K and the World Bank found that the programme greatly helped urban and semi-urban communities overcome unemployment and improve job readiness and entrepreneurship. The Pre-Employment Card programme is now one of the world's best practices in digital public services that are inclusive, responsive, and empowering.

Source:
https://www.ekon.go.id/publikasi/detail/4240/program-kartu-prakerja-menjadi-kisah-sukses-transformasi-pelayanan-publik-dan-terobosan-baru-dalam-inklusi-keuangan

No. 33: Gini Coefficient at National/City/Municipal Level

Kediri City: Towards Inclusive Economic Growth

Inclusive economic growth should benefit all segments of society, including groups that are often marginalised. This means that growth not just benefits a select few but also expands opportunities and access for all. Inclusive economic growth emphasizes that the benefits of economic progress must be dispersed evenly and fairly, so that they can be enjoyed by everyone. This is represented by the Gini coefficient.

The Gini Coefficient in Kediri City showed interesting dynamics in the last five years, with a tendency to fluctuate, but ended with a significant improvement in 2024. In 2020, Gini Coefficient was recorded at 0.346 (Statistics Indonesia, 2021), still in the low inequality category. This figure is lower than the national average of 0.385 in the same year). However, in 2024, the Gini Coefficient in Kediri City dropped significantly to 0.337, further away from the national Gini coefficient of 0.381, which means that income gap reduced.

This drop shows the positive impact of numerous initiatives promoting economic equality, i.e:

1. Strengthening Local Community-Based MSMEs

Through programmes such as *Kediri Entrepreneurship Movement* and *MSME Digitalisation*, the municipal government provides entrepreneurship training, halal certification and Household Industry Product Licensing (*Perizinan Produk Industri Rumah Tangga*/PIRT) facilitation, and digital marketing support, for example by collaborating with Tokopedia and Grab. These programmes have been successful in increasing the turnover of fostered MSMEs by 20-30% in one year.

2. Access to Inclusive Business Capital

The Inclusive Credit Programme, based on partnerships with regional People's Economic Bank (*Bank Perekonomian Rakyat*/BPR) and cooperatives, targets ultra-micro businesses and underprivileged communities. This scheme allows the disbursement of low-interest loans without collateral, accompanied by business assistance.

3. Free and Quality Education Policy

Through the Kediri Cerdas Programme, the municipal government provides tuition subsidies and scholarships to students from poor families. According to the Bappeda report, the school enrolment rate for the 16-18 age group rose from 84.3% in 2021 to 89.7% in 2023.

4. Economic Empowerment of Women and Disability

Sewing, craft and entrepreneurship skills training programmes for female heads of households and people with disabilities have been held regularly since 2022. Data from the Social Affairs Office shows that more than 300 people from this group have become economically independent in the past two years.

5. Expansion of Formal Employment

Through cooperation with industrial estates and vocational training based on industry needs (e.g. factory operator training and digital marketing), the open unemployment rate in Kediri City decreased from 5.9% (2021) to 4.6% (2023).

6. Targeted Social Assistance Based on Integrated Data

The utilisation of Integrated Social Welfare Data (Data Terpadu Kesejahteraan Sosial/DTKS) based on the e-Kasih application helps distribute social assistance more accurately. Based on an internal evaluation report, this policy reduced the *exclusion error* rate by 15% ((Bappeda Kota Kediri, 2024; Dinsos, 2024).

Source:

1. https://satudata.kedirikota.go.id/data_iku/detail/22-indeks-gini-gini-ratio
2. Statistics Indonesia. (2021). *Poverty and Inequality Profile of Kediri City 2020*
3. Statistics Indonesia. (2023). *Indonesia's Population Expenditure Inequality 2022*
4. Bappeda Kota Kediri. (2024). *Local Government Performance Report 2023*
5. Office of Cooperatives and SMEs of Kediri City. (2023). *Annual Report on MSME Empowerment*
6. Bank Indonesia Kediri. (2023). *Regional Financial System Stability Report*
7. Social Service of Kediri City. (2024). *Evaluation of Social Empowerment Programme 2022-2023*
8. BPS Kota Kediri. (2023). *Kediri City Socio-Economic Indicators 2023*
9. Government of Kediri City. (2022). *Regional Medium-Term Development Plan (RPJMD) 2019-2024*

1.1.1.3. Improve social inclusion of vulnerable groups (women, youth, elderly, and persons with disabilities and migrants)

No. 4: Presence of women's recognized legal right to property inheritance and ownership

Hareuta Peunulang, Customary Law to Guarantee Women's Rights in Aceh

In some parts of Indonesia, especially in matrilineal societies such as Aceh, culture and customary systems give women an important role in ownership and inheritance. Women in Aceh have legal rights to inheritance through two main systems of customary law and Islamic law. Under customary law, particularly the principle of *Hareuta Peunulang*, women are entitled to inherited property, such as houses, land, or business capital that cannot be divided or taken by other parties, including husbands. Meanwhile, Islamic law also recognises women's inheritance rights although having different entitled portion from men. Both systems provide a strong legal basis for women to own and retain their assets, although in practice it is still influenced by local social and cultural norms.

The effect of Hareuta Peunulang on women's property ownership in Aceh can be seen in the increase in the number of women who own fixed assets. For example, in Pidie District, Hareuta Peunulang's provision of houses and rice fields to women has helped them manage their businesses and increase family income. One case example shows an annual sales turnover of Rp350 million with a net profit of around Rp150 million per year. In addition, the Hareuta Peunulang grant also serves as living capital for women who are separated from their husbands, so that they can be economically and socially independent.

The trend of property ownership by women in Aceh shows an increase, although it is still not equal to that of men. Patriarchal culture and economic constraints still pose challenges for women to access and own property. Overall, Hareuta Peunulang contributes to the economic empowerment of women in Aceh by providing them with property rights that can increase their financial independence.

In addition, customary law is also used to resolve land disputes, with Gampong and Mukim institutions as the main venues for resolution. Customary law in Aceh plays an important role in maintaining social stability, safeguarding the rights of indigenous peoples, and preventing land conflicts. The implementation of customary law in Aceh is regulated by Aceh Qanun No.

9/2008 on the Development of Customary Life and Aceh Qanun No. 10/2008 on Customary Institutions.

The Basic Agrarian Law (Undang-Undang Pokok-Pokok Agraria/UUPA) is the legal basis for the national land system, including in Aceh. Land administration in Aceh is regulated by Law No. 11/2006 on the Governing of Aceh. Land rights in Aceh are regulated by UUPA, including property rights, business use rights and building use rights. The customary land rights of customary law communities are recognised in the national land system, with Ministerial Regulation of Agrarian and Spatial Planning/Head of the National Land Agency No. 14 of 2024 on the Implementation of Land Administration and Land Registration of Customary Law Communities' Customary Land Rights.

Customary law plays an important role in the implementation of the national land system in Aceh, especially in terms of customary rights and land dispute resolution. Both customary law and the national land system in Aceh support and complement each other, with customary law as the foundation and the land system as the implementation tool. Together they play an important role in maintaining social stability, protecting the rights of indigenous peoples, and ensuring legal certainty regarding land in Aceh.

Source:

1. Daud, M. K. (2019). Hareuta Peunulang as a Form of Women's Protection in Acehnese Society according to Islamic Law;
2. https://diskominfo.bandaacehkota.go.id/2017/04/05/di-forum-women-mayors-uclg-illiza-paparkan-best-practice-banda-aceh-dalam-pemberdayaan-perempuan/
3. https://sdg.komnasham.go.id/sdg-content/uploads/2017/04/Analytical-Framework-for-SDGs-and-Human-Rights-in-Bahasa.pdf
4. https://dp3ap2kb.jogjakota.go.id/assets/instansi/dp3ap2kb/files/panduan-penyusunan-pprg-kota-yogyakarta-gap-gbs-2021-6962.pdf
5. https://kemenpppa.go.id/page/view/MTQ2MQ==

1.1.1.3. Improving social inclusion of vulnerable groups (women, youth, elderly, and persons with disabilities and migrants)

No. 34 Presence of national legislation forbidding discrimination in housing, access to public facilities and social services based on race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or other status

"BREXIT" (Braille E-tickets and Extraordinary Access for Visual Impairments) in Malang City

People with visual impairment generally have a negative stigma in their environment due to their tendency of being dependent on others. With limited access to health care system, they tend to be depend on caregivers in accessing health services. Based on a survey conducted in 2018, the level of independence (percentage of people with disabilities who are independent) in accessing health services is merely 5% and in understanding the rules for taking medicine is only 3%.

Health center (Puskesmas) Janti in Malang City initiated the innovation of *Braille* e-tickets and Extraordinary Access for the Blind *(Brexit)* which aims to increase independence of people with visual impairment in accessing health services as well as in understanding and applying the rules of taking medicine. Improvements have been made by providing infrastructure that can support people with visual disabilities when they arrive at Puskesmas, health services, pharmacies, to supporting facilities, such as toilets. In addition, within the Puskesmas area there is a Technical Implementation Unit (UPT) for Social Rehabilitation of the Blind (RSBN) with more than 100 clients. Their bedroom facilities are generally used by more than 2 people, so there is a possibility of their medicine accidentally swapped. Such possibility prompted the Puskesmas to provide medicine information in *Braille* and large Latin letters allowing people with visual disabilities to touch the letters it or even read it through the *text to voice scan* application on their mobile phones.

Specific data on the number of visually impaired people accessing *BREXIT (Braille E-Ticket and Extraordinary Access)* has increased from year to year. In 2017, the number of visually impaired people in Malang City was recorded at 45 people, then increased until 2020 where the number of visually impaired people in Malang City increased to 262 people.

Brexit has been adopted by several Puskesmas outside Malang City, such as Puskesmas Salam and Puskesmas Pasirkaliki in Bandung City, and RSUD Sultan Suriansyah in Banjarmasin City. In addition, *Brexit* has also received several awards, including the East Java Province which has given appreciation through KOVABLIK with the Special Category of Regional Innovative Breakthroughs for Persons with Disabilities in 2018 and an award from the Ministry of Administrative Reform and Bureaucratic Reform as the winner of the TOP 45 Public Service Innovation Competition in 2019.

These initiatives show that Malang City is committed to building an inclusive and empowering environment for all its citizens, including those living with visual disabilities. *The BREXIT* innovation in Malang City *(Braille E-Ticket And Extraordinary Access For Visual Disabilities)* has had a significant impact in increasing the independence of the visually impaired, especially in accessing health services. Through *BREXIT*, the visually impaired can independently access health services, such as registration, medicine collection, and reading prescription tutorials.

Data shows that the rate of blind people's independence in accessing health services increased from 5% to 71.06% in 2017 after the implementation of *BREXIT.* One person with a visual disability, admitted that he was greatly helped by *BREXIT* from previously separating medicine in different places which prone to be lost or even confusing to easier identification of medicine with *braille*.

Source:

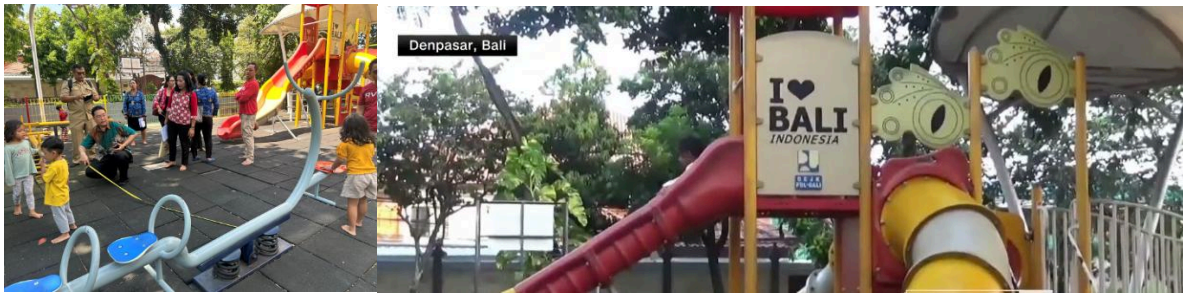
https://localisesdgs-indonesia.org/beranda/cs/brexit-inovasi-peningkatan-kemandirian-penyandang-disabilitas-netra-di-kota-malang

1.1.1.3. Improve social inclusion of vulnerable groups (women, youth, elderly, and persons with disabilities and migrants)

No. 19 Average share of the built-up area of cities that is open space for public use for all, by sex, age and persons with disabilities

Denpasar is a Child Friendly City: Building a Future Without Fear

Denpasar City, Bali, has been honoured as a Child-Friendly City (Kota Layak Anak/KLA) and Women-Friendly Region for successfully fulfilling the criteria set by the Ministry for Women's Empowerment and Child Protection with the highest predicate in 2023. This achievement was also proven by the *Outstanding Child-Friendly District* Award at the *2024 CNN Indonesia Awards* and the 2022 Women-Friendly and Child-Friendly Region Award. In 2019, Denpasar won four awards at once including Child Friendly School, Best Regional Children's Forum, Child Friendly Play Space, and Main Category Child Friendly City.



These achievements reflect Denpasar's success in fulfilling the five clusters of the KLA assessment, including the provision of child-friendly public facilities and the protection of children with special needs. In addition, Denpasar also recorded a Human Development Index (HDI) of 84.37 and a Child Protection Index (IPA) of 70.16 in 2022, indicating a high quality of life for children in the city.

As part of its child protection efforts, Denpasar has provided 42 School Safety Zones (ZoSS) spread across various sub-districts. ZoSS are designed to reduce vehicle speeds to a maximum of 30 km/h, giving drivers more reaction time to anticipate children's often spontaneous and unpredictable movements. However, this number is still limited compared to the number of schools, but the addition of ZoSS has helped to ensure children's safety at school. In addition, there are 682 Children's Creativity Centres (Pusat Kreativitas Anak /PKA) and Child Friendly Play Spaces (Ruang Bermain Ramah Anak/RBRA) spread across sub-districts to support optimal child development.

Nonetheless there are still challenges, especially in legal issues involving children. Often occurs in both school and home environment, *bullying* and physical violence can develop into persecution or beating. Data shows that girls are more vulnerable to violence than boys, including in cases of human trafficking.

To strengthen child protection and family resilience in Denpasar City, there are several strategic steps that can be taken, including increasing the number of family consultation institutions to help psychosocial recovery and family resilience, reducing infant mortality through the revitalisation of Posyandu, as well as improving access and quality of health services, and increasing the number of Safe School Zones so that child protection is more evenly distributed in all sub-districts. In addition, efforts to prevent violence against children, especially *bullying* cases, can be strengthened with *anti-bullying* prevention programmes made by educators, discussions and lectures on the dangers of bullying, and psychological support for victims of *bullying.* With these various efforts, it is hoped that Denpasar City can

increasingly become a city that is safe, comfortable, and truly suitable for children and friendly to women.

Source:

1. https://www.cnnindonesia.com/nasional/20240511203529-25-1096413/komitmen-denpasar-jadi-kota-layak-anak
2. https://www.kb.denpasarkota.go.id/public/uploads/download/download_242910091027_profil-kota-layak-anak-tahun-2023.pdf

1.1.1.4. Ensure equal access to public spaces including roads, pavements and cycling paths

No. 35: Percentage of Road Length with Dedicated Bicycle Lanes (excluding motorways)

Cyclist Friendly City of Batam

Batam City has been recognised as a Bicycle Friendly City, an award given by Bike to Work (B2W) Indonesia in 2021. Batam City ranks in the top three along with Yogyakarta and Bogor in the big city category. For the Metropolitan City category, DKI Jakarta, Bandung, and Surabaya occupy the top three ranks. Then, for the Medium/Small City category, the top three rankings are Magelang, Madiun, and Purwokerto. The Bicycle Friendly City event is an appreciation event for agencies that have a major contribution in committing and consistently encouraging cycling culture in Indonesia by having a system based on security, safety, and comfort through integrating the commitment and resources of government, community, and business.

Batam City built a road from Madani Roundabout to Ocarina (Bengkong Sadai) equipped with pedestrians and bicycle lanes, spanning around 3,5 kilometers wide and 2,7 kilometers length. One of the main reasons that initiated the development was to provide easily accessible facilities for pedestrians and cyclists, in addition to motorised vehicle users. Apart from being a facility for pedestrians and cyclists, the construction of this road was also carried out as a connectivity for trade souvenirs activities and the tourism industry that has been developed around the Bengkong Sadai area and its surroundings. These trading activities play an important role in the economy.

Source: https://dinsospm.batam.go.id/

1.1.1.4. Ensure equal access to public spaces including roads, sidewalks and cycling paths

No. 36: Percentage of road length with dedicated sidewalks (excluding motorways)

Integration of Pedestrian Areas in Jakarta Special Region Province

Dukuh Atas is one of the *Transit Oriented Development (TOD*) Areas in Jakarta Special Provincial Government which has transformed Kendal Tunnel into a pedestrian-only access tunnel connecting Sudirman KRL station, Jakarta MRT station, Airport Train station, and bus stops, as well as Transjakarta stations. The Kendal Tunnel was officially destroyed in March 2019 and converted into a pedestrian space. The Kendal Tunnel's contents were then disassembled and repaired, transforming it into a light-filled tunnel.

Not only becoming pedestrian walkway, the Kendal Tunnel has also been transformed into an *instagrammable* place. There are spotlights installed along the walls of the passageway, and the colour of the spotlights in the area constantly changes from time to time - red, yellow or green. Art installations are also often installed in the tunnel to entice pedestrians.

Every few months, the art installations at Kendal Tunnel are updated, usually to suit a momentum, such as the commemoration of Independence Day and so on. There are also many art communities as well as youth that gather at the Kendal Tunnel. At the end of the tunnel or near BNI Station, there is also a small library.

The construction of pedestrian facilities in Jakarta over the past 6 years has been done massively. Community engagement-based programmes, such as #JalanJakarta, were also implemented to create more cyclist- and pedestrian-friendly neighbourhood streets. This was followed by a 63km bicycle lane trial in 2019, which was then followed up by planning for 500km of protected bicycle lanes. This effort to plan bicycle lanes paid off during the *COVID-19* pandemic when there was a 10-fold increase in cyclists on Jakarta's main roads.

This was further reinforced by the implementation of a *pop up bike lane* (temporary protected *bike* lanes) and Governor Regulation No. 51/2020 which instructs to prioritise pedestrians and cyclists during social distancing of Covid-19 pandemic. Efforts to promote restrictions on private motorised vehicles in the city centre were marked by the conversion of the Thamrin 10 *park and ride* facility into a creative economy business space. Going forward, Jakarta vows to roll out further policies, such as increasing parking fees in the city centre and implementing ERP systems on major roads.

During the pandemic and other crises, such as power outages and political unrest, the environmentally sustainable transport system, public transport, and walking and cycling that the Special Capital Region of Jakarta already has in place are key assets in ensuring the city and its citizens remain mobile. The effort and determination to make unpopular decisions in a city that relies heavily on private motorised vehicles is commendable.

Source:
https://itdp-indonesia.org/wp-content/uploads/2020/11/STA-Announcement-2021.pdf#:~:text=Jakarta%20Memenangkan%20%E2%80%8BSustainable%20Transport%20Award%20(STA)%202021.,programme%20integration%20of%20inter%20modes%20of%20transportation%20for%20public%20people

1.1.2.1. Ensuring Access to Adequate and Affordable Housing

No. 38: Percentage of people living in unaffordable housing

Poverty Alleviation through Housing Provision and Revitalisation in Parepare City, South Sulawesi

Housing Reconstruction and Renovation Programme is a strategic programme using the special allocation fund (Dana Alokasi Khusus/DAK) and general allocation fund (Dana Alokasi Umum/DAU) pioneered by the Mayor City of Parepare, South Sulawesi, which aims to repair or renovate uninhabitable houses to be more feasible, as an effort to reduce and alleviate poverty In 2021, the Parepare Municipality rehabilitated a total of 246 houses for the underprivileged. Of these, 130 units were funded through special allocation fund, while 116 other units through general allocation fund from the Regional Budget. For 2022, 50 renovation houses have been built, while 81 houses have been renovated. In 2023, a total of 81 units of renovated houses spread across 4 sub-districts and 22 urban villages.

The house renovation programme in Parepare involves various parties. This programme is often part of social service activities, such as those carried out by the Task Force of TMMD Kodim 1405/Parepare. The assistance provided can be in the form of funds for quality improvement (maximum IDR 15 million) or new construction (maximum IDR 30 million), depending on each programme. The requirements and process of applying for house renovation vary, depending on the programme. Generally, the requirements include: 1) minimum age of 58 years, 2) legal ownership of the land, 3) occupation of the only house that is not habitable, and 4) has been inhabited for at least 3 years.

In receiving financial assistance, a bank account for Self-Help Housing Stimulant Assistance is required, and opening such account is carried out in collaboration with the Sulselbar Bank, which uses a direct pick-up system in each village with Bank Sulselbar's Mobile Cash Car.

The provision and revitalisation of residential housing in Parepare City has significant social impacts. Positively, it can improve quality of life, encourage local economic growth, and increase a sense of belonging to the neighbourhood. Decent and comfortable housing can improve people's health and well-being, especially for vulnerable groups, such as low-income families. The provision and revitalisation of houses can create jobs, boost economic activities in the construction sector, building materials trade, and other related services. Decent housing can increase community ownership and involvement in neighbourhood development and maintenance of public assets.

Home revitalization requires workers in various fields, such as builders, carpenters, masons, welders, and others. Increasing revitalization projects will increase the demand for these workers, opening job opportunities for residents. Home revitalization will also encourage the growth of related sectors, such as the provision of building materials, interior design services, transportation services, and so on. Revitalization of houses can increase economic activity around the revitalized area. This can encourage the growth of small and medium enterprises (SMEs) and create new jobs which has significant social impacts.

Source:
https://daerah.sindonews.com/read/483038/713/130-unit-rumah-di-parepare-dapat-bantuan-bedah-rumah-1626260820
https://development.pareparekota.go.id/index.php/rumah-impian-program-strategis-taufan-pawe/

Earthquake Resistant Core House Programme: A Collaborative Innovation for Decent Housing for Low-Income Communities

Amid the challenge of the national housing *backlog* reaching 9.9 million units by 2023, informal workers and vulnerable communities are the most affected. Of this figure, around 4.3 million units are needed by low-income people in the informal sector who have been facing structural barriers in accessing formal housing finance. In addition, their houses are generally built with construction and materials below the qualification of technical standards, making them highly vulnerable to damage during disasters such as earthquakes.

Earthquake Resistant Core House Programme is an innovative earthquake-resistant modular house design that addresses the housing *backlog* challenge through a collaborative approach and alternative funding based on multi-stakeholder collaboration. This practice reflects the spirit of the New Urban Agenda in building cities and settlements that are inclusive, sustainable and disaster resilient. The implementation of Earthquake Resistant Core House Programme shows that providing housing for vulnerable individuals requires more than just a technical strategy; it must also include building local institutions, incorporating the commercial sector, and community-based socioeconomic initiatives.

Prabumulih City was chosen as the Earthquake Resistant Core House Programme pilot location because it was considered to have land readiness, local government commitment, and the real needs of vulnerable community groups. A total of 100 beneficiary families, consisting of 34 scavengers, 28 labourers, 26 people with disabilities, and 12 motorcycle taxi drivers, previously lived in limited housing conditions, renting small houses or staying with relatives with minimal access to sanitation.

Two hectares of land is provided by the local government and the construction of the houses through CSR funding from three strategic partners: PT Sarana Multigriya Finansial (SMF), Bank BTN, and Bank BSI. The collaboration also includes the provision of basic infrastructure such as electricity from PLN and clean water from PDAM, ensuring a decent and healthy residential environment.

Earthquake Resistant Core House Programme's main advantage lies in its modular 18m^{2}house design that can be expanded to 36m^2. It utilises the *Rumah Instan Sederhana Sehat* (RISHA) technology designed to address three main challenges: Affordability for informal workers, Accessibility for people with disabilities, Resilience to earthquake disasters.

Earthquake-resistant core house (RITTA) in Prabumulih, South Sumatra

In addition to building houses, Earthquake Resistant Core House Programme also strengthens community capacity. The Sumatra V Housing Provision Implementation Centre (BP2P) provides technical training to beneficiaries in order to develop their houses independently. The formation of the Community Self-Help Agency, also encourages participatory environmental management, fostering a sense of belonging and shared responsibility in maintaining residential areas.

The success of Earthquake Resistant Core House Programme in Prabumulih demonstrates that providing decent housing for vulnerable groups requires an integrated approach; combining design innovation, alternative financing, and cross-sector collaboration. More than just providing a roof, Earthquake Resistant Core House Programme creates the foundation for a better life - a place where people grow, are empowered and protected.

With the positive results of this pilot project, Earthquake Resistant Core House Programme is ready to be replicated in various parts of Indonesia. This programme brings new hope for millions of informal workers to have safe, healthy, affordable and dignified housing.

Source:

1. Directorate of Settlement Area Implementation System and Strategy, Directorate General of Settlement Areas, Ministry of Housing and Settlement Areas
2. https://www.liputan6.com/bisnis/read/5381259/30-rumah-tahan-gempa-dibangun-buat-pemulung-di-prabumulih-sumatera-selatan
3. https://www.kompas.com/properti/read/2024/01/11/093000321/pemerintah-bangun-100-rumah-tahan-gempa-di-prabumulih

1.1.2.2. Provide access to sustainable housing finance options

No. 37 Mortgage Debt Relative to GDP

Sarana Multigriya Finansial and Financing Innovation: Supporting Home Ownership for Low-Income Communities

PT Sarana Multigriya Finansial (SMF) is a state-owned enterprise (SOE) under the Ministry of Finance that acts as a catalyst in housing finance in Indonesia. Since its establishment in 2005 until the end of 2023, SMF has disbursed funds amounting to 103.75 trillion to the housing finance sector, which includes the distribution of financing and purchase of Home Ownership Loans (*Kredit Pemilikan Rumah*/KPR) of 81.02 trillion and mortgage securitisation of 13.61 trillion. These funds have financed around 2 million debtors across Indonesia, with a distribution of 85.11% in the western region, 13.91% in the central region, and 0.59% in the eastern region.

In the first semester of 2023, SMF disbursed 4.6 trillion in financing, an increase of 5.38% compared to the same period last year. In addition, SMF also realised various business activities, including Construction Loans of 44.80 billion, Housing Micro Loans of 534.6 billion, and Housing Multi-Use Loans of 2.1 trillion. By the end of 2023, SMF's total assets will reach 45.71 trillion, with loan disbursements of 13.09 trillion and net profit of 466 billion.

SMF has also been active in issuing debt securities as a source of funding since 2009 as a key strategy in providing medium to long-term funding for the housing sector in Indonesia. By the end of 2023, SMF had issued 57 debt securities with a total value of 57.27 trillion, consisting of 44 bonds and sukuk issuances through public offerings amounting to 52.48 trillion, 12 *Medium Term Notes (MTN)* issuances through limited offerings amounting to 4.67 trillion, and one Commercial Paper issuance amounting to 120 billion. One example of the issuance of debt securities by SMF is the SMF Shelf Registration Bond VI Phase VI Year 2024, which is offered in three series with the highest coupon of 6.80% per annum and a tenor of up to five years.

The funds obtained from this bond issuance are used to support the financing or *refinancing* of housing and settlement financing activities, particularly to increase home ownership and the availability of affordable housing projects for low-income people. This issuance is part of

SMF's commitment in supporting sustainable financing and easing the government's fiscal burden in the housing sector.

Through this bond issuance, SMF has been able to optimise the availability of funds to support its housing finance disbursement target, ensure more efficient funding with competitive interest rates, and strengthen the housing sector in Indonesia. This step supports SMF's efforts in providing medium and long-term funding sources for housing finance, as well as addressing the risk of *mismatch* between asset and liability maturities. With these achievements, SMF demonstrates its commitment in supporting the government's programme to address the housing *backlog* and encourage the availability of decent housing for the community, especially for low-income people (MBR).

PT SMF has been recognised for its innovation in social finance through the *"Innovator in Social Financial Bond Mortgage Solution"* award at the *Prominent Awards* 2024. The award was given in appreciation of SMF's role as a pioneer in the issuance of *social bonds* in Indonesia, which are fully allocated to support housing finance for low-income communities (MBR). Through this *social bond*, SMF ensures that funds raised from investors are used transparently and purposefully for social purposes, especially in providing decent housing for MBR.

Source: https://smf-indonesia.co.id/

1.1.2.3. Supporting Guarantee of Ownership

No. 39 Proportion of Cities with Slum Upgrading Programmes

Integrated Planning of Belawan Bahari Area in Medan City

Prior to redevelopment in 2022, the Belawan Bahari area in Medan City experienced complex environmental and social problems. Settlements in this area are classified as slums, with wooden stilt houses standing on mud puddles, reflecting poor sanitation conditions and inadequate infrastructure. The location flanked by the estuaries of the Belawan and Deli Rivers makes the area highly vulnerable to tidal flooding. Local residents report that in every 10-day period, tidal flooding occurs 3 to 4 times, with the intensity increasing year by year.

This condition does not only disrupts the daily activities of residents, such as children who have to be carried during floods, taking off shoes to go to school, but also damages household

furniture due to tidal water entering the house. In addition, the area also experience the challenge of extreme poverty, with many residents working as small-scale fishermen and living in uninhabitable houses. This situation has prompted the government to undertake an integrated neighbourhood plan, to improve the quality of life of the community and reduce the risk of environmental disasters.

The redevelopment of Medan Belawan Bahari area is implemented in an integrated and gradual manner until 2029. In phase 1 from 2022-2024, there has been some substantial work carried out: Belawan tidal flood management, construction of occupational health and safety in floodgates and pump houses, socialisation of tidal flood management, Belawan Bahari extreme poverty management, as well as urban forest and uninhabitable house management. This programme is carried out by the Ministry of Public Works and Public Housing together with the Medan Municipality and other related ministries. The main objectives of this programme are to overcome tidal flooding, improve settlement quality, and provide basic facilities and infrastructure to reduce extreme poverty in the coastal area.

In the aspect of tidal flood control, infrastructure has been built, such as embankment parapets, pump houses, collector drainage, *box culverts*, and seven sluice gates. The construction was carried out by Balai Wilayah Sungai Sumatera II with a total budget of 25.6 billion, which began in August 2022 and has reached the completion of the first phase. Infrastructure development was also built, such as a drainage system, 300 metres of *paving blocks*, and public street lighting. The construction of a reservoir with a capacity of 300 m³ is also expected to reduce the impact of tidal flooding.

The programme also includes the repair of uninhabitable houses. In 2022, 3 houses were renovated, followed by 15 houses in 2023, and 40 houses in 2024, making a total of 58 housing units that have been repaired. In addition, drainage channels, clean water supply, *reduce-reuse-recycle* waste treatment centres (TPS3R), *paving block* roads, green open spaces, and fish drying facilities were also constructed. In addition to focusing on physical development, there is a strategy through numerous programs that aim to empower the community.

This arrangement is also supported by the involvement of the private sector through the *Corporate Social Responsibility (CSR)* Programme. For example, PT Jasa Marga donated Red shoot trees (Syzygium myrtifolium) for reforestation along Sinabang Road and also PT Tasblock Industry Indonesia provided garden chairs and waste bins for public open spaces. The programme has had a positive impact on the community. Residents report that their homes are now more livable and no longer affected by tidal flooding, and the environment has become cleaner and more organised. The upgrading of this area is part of the government's efforts to alleviate extreme poverty through a sustainable environment and infrastructure approach.

Source:
https://pu.go.id/assets/media/1393483709-LAKIP-Laporan-Kinerja-Kementerian-PUPR-Tahun-2024.pdf

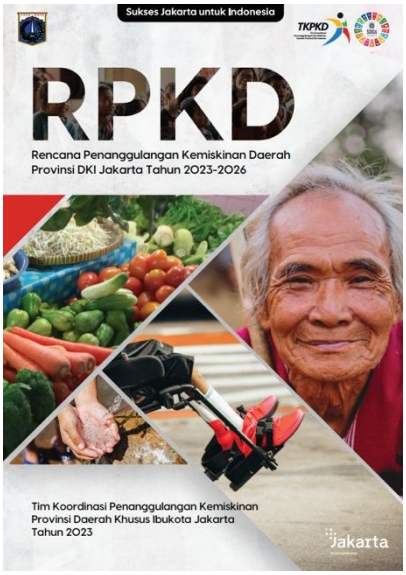
1.1.2.3. Supporting Guarantee of Ownership

No. 40 Number of cities having annual budget allocations addressing any of the 5 slum deprivations and inclusive public spaces in known slum areas

An Innovative Model of Poverty Reduction Based on Data and Programme Convergence: DKI Jakarta Experience

DKI Jakarta Province as a high-density urban area in Indonesia has very complex challenges in poverty reduction efforts. To overcome the problems of poverty and inequality in DKI Jakarta Province, the DKI Jakarta Provincial Government has developed a Regional Poverty Reduction Plan (Rencana Penanggulangan Kemiskinan Daerah/PRSP) in DKI Jakarta Province for the period 2023-2026.

The process of analysing the root of the problem and the solution programmes up to the determination of priority locations involved stakeholders from within the local government, the central government, academics, representatives of community organisations, and other relevant parties. The goal of implementing the poverty reduction project in DKI Jakarta Province for the period 2023-2026 is to achieve the multidimensional welfare of the poor through inclusive and equitable development. This goal is then derived into six targets in accordance with the strategic issues of poverty reduction: 1) ensuring food security for the poor and vulnerable, 2) building affordable infrastructure and basic services for the poor, 3) increasing employment and productivity of the poor and vulnerable, 4) increasing participation in quality education for the poor and vulnerable, 5) improving the quality of growth and development of toddlers from the poor and vulnerable groups, 6) and implementing adaptive governance and integrity.



In order to encourage convergence and integration of programmes, the Provincial Government of DKI Jakarta has matched data from various community welfare databases and Poverty Reduction Programme data. The DKI Jakarta Provincial Government has and continues to strive to improve cross-sector data integration for poverty reduction efforts. In achieving the commitment to reduce poverty, the role of all levels of government is important, especially in coordinating with the Regional Apparatus implementing the programme regarding the *tagging* of poverty programmes and the achievement of targets.

Poverty reduction programme priorities are also determined using the outcomes of the preceding period's evaluation of poverty reduction program implementation. Through a series of forums and coordination discussions, the programmes, activities, sub-activities, and specific poverty reduction indicators that will be included in the Poverty Reduction Programme Priority Matrix were discussed with the Regional Apparatus. The agreed programmes, activities, sub-activities, and specific indicators have been formulated with performance targets, budgets, and priority locations that will serve as benchmarks for poverty reduction performance.

Based on discussions of *cascading* targets and indicative ceilings for poverty reduction programmes, activities, sub-activities, and supporting action plans for 2023-2026, 94 programmes, 133 activities, 259 sub-activities, and 140 supporting action plans have been agreed upon as priorities in poverty reduction efforts in DKI Jakarta Province. Each poverty reduction programme has been equipped with monitoring instruments, as well as risk profiles

and risk mitigation. Furthermore, key locations for the execution of poverty reduction activities have been identified, in addition to determining the poor and vulnerable populations.

Because each region has a unique level of poverty, determining programme priority sites is required to decide the right program interventions to be implemented. Priority sites for general poverty are determined by comparing the proportion of the number of slum neighbourhoods and the number of residents in the poorest category, percentiles 1-5 in the P3KE data. The priority locations of other sectors are determined by the intersection of the number of people in the 1-5th Percentile in the region with the indicators of each sector.

The DKI Jakarta Provincial Government has set a provincial poverty target of 2.91% and extreme poverty of 0.68% by 2026. In order to achieve the poverty reduction targets in DKI Jakarta Province in 2023-2026, it needs to be supported by policies to stimulate the acceleration of priority poverty reduction programmes in DKI Jakarta Province. It is expected that through these programmes, the target of reducing poverty and improving people's welfare can simultaneously be achieved.

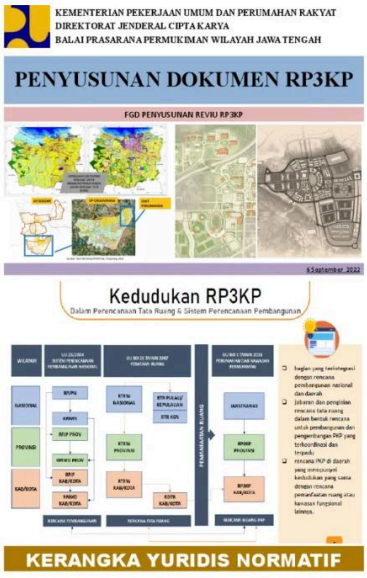
Source: bappeda.jakarta.go.id

1.1.2.3. Support ownership guarantee

No. 41 Percentage of cities that have integrated housing policies and regulations in their local development plans

Housing and Settlement Development Plan as well as Urban Slum Prevention and Improvement Plan in Klaten District leads to Housing and Settlements Working Group Award 2024 Champion

Klaten Regency was awarded 1st place in the Housing and Settlements Working Group (Pokja PKP) Award 2024, a recognition of the success of Housing and Settlement Working Group in designing and implementing integrated and sustainable housing policies. The national award is organised by the Ministry of Public Works and Housing as a token of appreciation for the best performance of Housing and Settlements Working Groups at the provincial, district, and city levels.



Assessment of the award covers various aspects, such as the complete fulfillness and implementation of planning documents including the RP3KP (Housing and Settlement Building and Development Plan) as well as RP2KPKP (Slum Housing and Settlement Quality Improvement and Prevention Plan), the effectiveness of inter-regional apparatus organization coordination, measurable achievements in slum reduction, and programme innovations that have a direct impact on the community. In its implementation. This Award is useful for sharing good practices between regions, while strengthening the commitment of local governments in providing livable housing and an orderly settlement environment. Klaten Regency won the first place due to its solid planning documents, significant slum reduction achievements, and active cross-sector synergy in the implementation of the housing and settlements programme.

This award was presented because the Klaten working group demonstrated cooperation within the Regional Apparatus Organisation in accelerating the provision of livable housing, drinking water, and sufficient sanitation. One of the strategic steps taken was Coordination Meeting in 2024, which aims to strengthen *inter-stakeholder* collaboration in planning and implementing housing and settlement area programmes.

The content of Klaten District's RP3KP includes a spatial profile of residential areas, housing needs projections until 2045, area-based housing development strategies, and multi-source funding schemes, all of which support cross-sectoral programming. Meanwhile, the Slum Housing Prevention and Improvement Plan contains verified slum maps, technical indicators of 7+1 slums, annual action plans, and the determination of priority locations based on field survey data and community participation. Both documents are not only administrative plans but have also been implemented in real terms through various slum upgrading programmes, improvement of uninhabitable houses, and provision of basic settlement infrastructure.

Klaten's excellence lies in the consistency of implementation, commitment across regional apparatus organization in the working group and measurable achievements in reducing the area of slums and expanding access to decent housing. This collaborative and data-driven approach justifies Klaten as the first national champion in the Award. The history of the formation of the working group stems from the region's commitment to tackling slums and improving the quality of settlements through a participatory and data-based approach.

The measurable achievements of this effort include the improvement of livable houses, the Klaten District Government consistently implements the Repair of Non-Habitable Houses Programme. In 2022, a total of 1,715 non-habitable house units were rehabilitated through various funding sources, including local government budget, central and provincial government assistance, Baznas, as well as Coorporate Social Responsibility. In 2023, a total of 686 non-habitable house units were repaired, focussing on villages with extreme poverty levels. Then, in 2024, a total of 245 non-habitable house units were repaired, spread across 89 villages in a total of 26 sub-districts. In the provision of basic infrastructure, the Klaten District Government allocated Physical Special Allocation Funds for the implementation of drinking water in 9 villages, construction of communal Wastewater Management Installations in 6 villages, and rehabilitation of Fecal Sludge Management Installations in 1 village in 2024. This success not only reflects the effectiveness of the Working Group, but also shows the strong commitment of the Klaten District Government in creating a healthy, decent, and sustainable settlement environment for the residents.

Source:
https://www.scribd.com/presentation/596714093/FGD-RP3KP

1.1.2.4. Create a slum upgrading programme

No. 42: Total investment in housing (both in the formal and informal sectors in urban areas), as percentage of gross domestic product

From Funds to Impact: A Model of Specific Allocation Fund Integration in Settlement and Infrastructure Transformation

The integration of the specific allocation fund in Central Java Province is an example of best practice in slum upgrading based on cross-sector collaboration. This initiative was initiated by the Ministry of Public Works and Housing as a strategic innovation in the fields of drinking water, sanitation, and housing. The main objective is to create a decent, healthy, and inclusive settlement environment for low-income communities.

The three pilot areas for the specific allocation fund integration are Pemalang Regency, Kendal Regency, and Surakarta City. Through an integrated approach, the programme not only focuses on physical development, but also strengthens social aspects and community-based financing. One good example is the construction of the Cahaya Weleri Community Flat in Penyangkringan Village, Kendal Regency which has benefited 170 families or 850 low income people by having access to livable housing with three communal wastewater treatment plant units; waste processing site reduce, reuse, and recycle; drinking water networks, as well as other basic settlement infrastructure.

This achievement was also aided by a novel financing strategy that directly incorporated the community. Programme coordinators and local leaders facilitated low-income communities to save money, consolidate land, and pre-finance so that they could obtain title deeds before house construction began. In addition, the local government collaborated with banks to provide a Rp60 million housing loan for a type 36 house on a 6 x 10 square meter plot.

The Kendal District Government also allocated an additional special allocation fund (DAK) of Rp50 million per family for infrastructure development, with the total investment per housing unit reaching Rp110 million. Interestingly, the bank-estimated value of the property reached Rp150 million, showing that the programme does not only meets basic needs, but also provides added economic value for beneficiaries. The successful integration of special allocation fund in Kendal has become a national comparative study site. To date, 19 districts/cities from 6 provinces have conducted field visits and on-site learning, such as from East Java, Lampung, Central Sulawesi, South Kalimantan, Central Kalimantan, and South

Sumatra. This shows high potential for replication and scalability of this integration model in other areas.

In addition to the housing sector, Kendal district also utilises special allocation fund for the education and infrastructure sectors. In 2022, Kendal received the special allocation fund for education amounting to Rp332 billion for physical and non-physical development from elementary to high school levels, including the construction of library buildings as an effort to increase community literacy. In infrastructure, Kendal's Public Works Office received the special allocation fund of IDR 4 billion in 2023 for the revitalisation of dams and irrigation channels. The successful implementation of this project with 100% physical achievement led Kendal to be awarded as the Best District/City Implementing the special allocation fund Irrigation from the Ministry of Public Works of the Republic of Indonesia.

Source:
https://www.kendalkab.go.id/berita/id/20240705002/kendal_raih_penghargaan_kabupaten_terbaik_pelaksanaan_dak_fisik_infrastrukt#:~:text=%22DPUPR%20Kendal%20sebelumnya%20sudah%20membuat,KabupatenKendal%2C%22%20tutur%20Khoirul%20Ridho

1.1.2.5. Integrate housing into urban development plans

No. 43 Percentage of government budget dedicated to housing subsidies

From Housing Finance Liquidity Faciloty to Savings-Based Housing Financing Assistance: The Government's Roadmap to Reduce Housing *Backlog*

The Government of Indonesia has shown a strong commitment to addressing the housing *backlog* through various subsidy schemes targeting low-income households. One of the main programmes is the Housing Finance Liquidity Facility (public housing credit), which is a revolving fund-based financing scheme with a funding portion of 75% from the state budget and 25% from the implementing bank. In addition, the government also provides a Value Added Tax (VAT) exemption of 11% of the selling price of subsidised houses, which ranges from Rp16 million to Rp24 million per unit.

The housing subsidy is an important instrument to reduce the *backlog,* both in terms of ownership and occupancy. Based on Housing Finance Fund Management Center (Pusat Pengelolaan Dana Pembiayaan Perumahan/PPDPP) data, the home ownership *backlog* in 2010 was recorded at 13.5 million households or 22%, and decreased to 11.46 million households or 17.37% in 2015. Based on 2021 Susenas data, the *backlog* of home ownership for low-income households has dropped further to 9.7%. This decline shows the effectiveness of the subsidy policy in increasing people's access to home ownership.

Housing finance liquidity facility itself is managed by the Ministry of Public Works and Housing as a revolving fund programme that does not have restrictions on principal funds, such as endowment funds. In its implementation, this programme is also supported by PT Sarana Multigriya Finansial (Persero) or PT SMF and the Public Housing Savings Management Agency (BP Tapera) through State Capital Participation (PMN). As a *Special Mission Vehicle (SMV)* under the Ministry of Finance, PT SMF plays a role in supporting the liquidity of banks implementing the housing finance liquidity facility mortgages. From August 2018 to June 2022, PT SMF has disbursed IDR11.2 trillion to finance 318,413 housing units for low-income households. In 2023, the programme targeted to disburse 220,000 housing units.

In addition to housing finance liquidity facility, the government also runs other subsidy programmes, such as the Savings-Based Housing Financing Assistance and Subsidised Down Payment Assistance. Savings-Based Housing Financing Assistance is given once to low-income households who have savings and aims to help finance part of the down payment or construction costs of self-help houses through bank credit. Meanwhile, the down payment assistance subsidy provides direct assistance of Rp 4 million, and up to Rp 10 million for Papua and West Papua regions, as support in the down payment of house purchase.

Nationally, the implementation of the subsidy programme has shown significant results. As of November 2022, the housing finance liquidity facility programme has distributed 203,358 housing units out of a target of 200,000 units, with funds disbursed reaching IDR 22.63 trillion. The distribution covered 395 districts/cities in 33 provinces, with the highest concentration in West Java and Banten Provinces (36.9%). The composition of beneficiaries consisted of 93.92% private sector and 6.08% state apparatus (civil servants, military, and police).

In order to reach more beneficiaries, the government is considering a new financing scheme: reducing the portion of the state budget contribution in housing finance liquidity facility from 75:25 to 50:50. Thus, the banking sector is expected to play a more active role in encouraging public housing financing. This initiative reflects the government's determination to continue expanding access to decent and affordable housing for all levels of Indonesian society.

Source:
https://anggaran.kemenkeu.go.id/in/post/apa-kabar-flpp

1.1.3.1. Access to safe drinking water, sanitation and solid waste disposal

No. 5 Proportion of population using safely managed drinking water services

Drinking Water Supply in Kupang City, East Nusa Tenggara

Plan International Australia (PIA) and Plan Indonesia, supported by the Australian Department of Foreign Affairs and Trade (DFAT) through the Water for Women (WfW) fund, have implemented programme related to Water, Sanitation, and Hygiene (WASH), Gender Equality, Disability, and Social Inclusion (GEDSI), and climate resilience to support waste management and water supply in Kupang City from 2023-2024. A total of 389 youth, 743 women, and 127 people with disabilities were involved in the programme.

In the development of the water safety plan, WfW collaborated with the Kupang City Public Water Supply Company for the Kali Dendeng Drinking Water Supply System with 3,000 active customers. *Plan International* led the project implementation by providing technical planning, water infrastructure development, and community-based management training. Local communities, particularly women's groups and people with disabilities are directly involved in decision-making processes, facility maintenance, and hygiene campaigns. The local government participated in supporting regulations, technical supervision, and ensuring the integration of the programme in the city's development plan.

SPAM Kali Dendeng, Kupang City, East Nusa Tenggara

The Kali Dendeng Drinking Water Supply System is designed to improve access to clean water for thousands of residents around the area. By 2023, the facility has provided decent clean water services to more than 8,000 residents, with the construction of more than 20 water distribution points and improved pipeline network quality. The programme also recorded an increase in access to safe drinking water from around 50% to 85% in the intervention areas. In addition, around 200 residents were trained in sanitation management and inclusion-based drinking water supply system management, which strengthened community participation in maintaining service sustainability. The programme has successfully reduced inequality in access to clean water, especially for marginalised groups, and significantly improved the quality of life and health of the community.

The program's major focus on women stems from the reality that women, particularly in distant and impoverished areas, are disproportionately affected by the clean water crisis because they are generally in charge of water collection and household administration. By actively involving women, the programme does not only improve the efficiency of water management, but also strengthens women's position in decision-making and community development, thus creating a more sustainable and inclusive social impact.

The Ministry of Public Works has been working to increase the capacity of safe drinking water services for the community in Kupang City. The Kali Dendeng Drinking Water Supply System was built using a 173 billion state budget with a capacity of 150 litres/second which is projected to increase the coverage of piped drinking water services in Alak District by 17.8%, Kota Lama District by 2.1%, and Kota Raja District by 8.5% from a total service of 15,000 house water connection.

Source:
https://pu.go.id/berita/tingkatkan-layanan-air-minum-kota-kupang-spam-kali-dendeng-diresmikan
https://www.instagram.com/p/CYjJ7ThFdE6/?hl=en&img_index=7

1.1.3.1. Access to safe drinking water, sanitation and solid waste disposal

No. 18: Proportion of Municipal Waste Collected and Managed at Controlled Facilities out of Total Municipal Waste Generated by the City

Malaka Village becomes a pilot for sustainable waste management in Indonesia

Waste care action is a programme of the Ministry of Environment in collaboration with the Ministry of Villages and Development of Disadvantaged Regions and the North Lombok Regional Government. The action aims to reduce greenhouse gas emissions, ecosystem damage, to groundwater pollution and reduce waste in Indonesia which reaches 56.63 million tonnes per year. As one of the winning communities in the Waste Care Action Programme's National Waste Care Day celebration, Malaka Village is expected to become a model for sustainable waste management by hosting the waste care action village.

The current state of waste in Indonesia is 56.3 million tonnes per year. With such large number, it is very important to collaborate with various parties. The Ministry of Environment invites the Ministry of Villages and Transmigration and local governments in this action. Village governments can use village funds for waste-free programmes. The village funds that have been distributed to all villages from 2015 to 2025 reached Rp 600 trillion, with each year collecting up to Rp 71 trillion for a total of 75,265 villages. The Ministry of Environment and the Ministry of Villages are currently drafting guidelines for the development of zero-waste villages to serve as a reference for villages in drafting Village-Owned Enterprise oriented towards sustainable waste management.

Waste management in North Lombok involves various aspects, including waste generation, transportation systems, and efforts to improve facilities, such as waste management site. Data shows that household waste generation is around 0.2156 kg/person/day with a volume of 0.0018 m^3/person/day. In addition, there are efforts to optimize waste management in Gili Trawangan, with 17 tonnes of waste generated per day, most of which comes from the tourism sector. Household waste generation is around 0.2156 kg/person/day with a volume of 0.0018 m^3/person/day, with a total waste generation of around 47,115.715 kg/day or 393.36 m^3/day. Producing around 17 tonnes of waste per day, driven by the increasing number of tourists. There are 16 waste management sites spread across various areas of North Lombok, which aim to process and sort waste before it enters the landfill.

The waste transportation system in Gili Trawangan uses horse cart (andong) and three-wheeled motorbikes due to limited road access. The North Lombok Environmental Service coordinates with the local government to ensure the waste management site operation runs smoothly. The increasing number of tourists in Gili Trawangan has contributed significantly to the increase in waste generation. Population growth is also a factor that influences the increase in waste generation.

North Lombok Regency, West Nusa Tenggara, has shown significant commitment in community-based waste management through the *Reduce, Reuse, and Recycle* (3R) approach. As of early 2025, there are 16 *Reduce, Reuse, and Recycle* Waste Management Sites (TPS-3R) spread across the district, with stimulant funding support from the local government to ensure sustainable operations.

In 2022, the volume of waste generated in North Lombok Regency reached a total of 93,643.7 m^3, with the following distribution: Pemenang sub-district 18,284 m^3, Tanjung 24,878 m^3, Gangga 23,573 m^3, and Kayangan 21,908 m^3. Through the implementation of TPS3R, it is expected that most of the waste can be managed independently at the village level, thereby reducing the volume of waste entering landfills. This approach does not only improve environmental quality, but also empowers communities in environmentally friendly and sustainable waste management. This activity resulted in waste cadres, composter tools, and the establishment of a waste bank centre and halfway house for community empowerment.

Source:

https://lombokpost.jawapos.com/tanjung/1505656159/desa-malaka-jadi-percontohan-pengelolaan-sampah-berkelanjutan-di-indonesia?page=2
https://regional.kompas.com/read/2025/02/16/132443178/aksi-desa-bebas-sampah-di-lombok-utara-langkah-konkret-wujudkan-indonesia?page=all
https://www.rri.co.id/mataram/daerah/1326551/desa-bebas-sampah-solusi-atraktif-atasi-krisis-lingkungan-di-indonesia

1.1.3.1. Access to safe drinking water, sanitation and solid waste disposal

No. 6 Proportion of population using safely managed sanitation services, including a hand-washing facility with soap and water

Centralised Domestic Wastewater Management of Disposal System in Gresik District

The domestic wastewater management programme in Gresik Regency has undergone a significant transformation since 2011. In the initial stage, between 2011 and 2014, the government built 105 Centralised Domestic Wastewater Management Systems in residential areas and established the Betoyoguci Fecal Sludge Treatment Plant with the support of central government funding. In addition, vacuum vehicles for desludging were also provided through local government funding.

The 2014-2019 period focused on institutionalisation by establishing the Technical Implementation Unit for Domestic Liquid Waste Management. However, initial operations faced challenges due to a shortage of operators. To address this, in 2018 Regional Regulations Number 9 and 13 were issued that regulate wastewater management and desludging retribution. This enabled the official commencement of desludging and septage treatment services in 2019.

Between 2020 and 2024, the focus of activities shifted towards service expansion and financial sustainability. In 2021, the Technical Implementation Unit for Domestic Liquid Waste Management transformed into a Regional Public Service Agency with a role in providing

greater financial autonomy. This transformation was formalised through a Gresik Regent Decree in July 2023, and full operations as a Regional Public Service Agency began in 2024. During this period, Regional Public Service Agency revenue increased sharply from Rp7.5 million in 2020 to Rp700 million in 2024. The service also expanded to cover a total of 8,622 customers, including households, businesses and social institutions.

The success of this programme inseparable from the role of various stakeholders. The Department of Human Settlements, Housing, and Settlement Areas is responsible for policy and infrastructure development, while the Regional Public Service Agency manages the wastewater treatment and desludging operations. Key regulations such as Regional Regulations Number 9/2018 on wastewater management and Regional Regulations Number 13/2018 on desludging retribution provide a strong legal foundation. In addition, the involvement of the private sector in desludging services and the active role of the community through the Wastewater Treatment Plan's Maintenance and Management Group strengthens the system.

Academics, such as those from the Sepuluh Nopember Institute of Technology, also contribute through research into the utilisation of fecal sludge for compost and building materials. Technological innovation also supports service efficiency. The Go-Ploong application launched by Gresik district government makes it easier for the public to access desludging services online. The app has received national and international recognition, including representing Indonesia in the ASEAN ICT Awards.

Overall, the domestic wastewater management programme in Gresik District has had a significant positive impact. From an environmental perspective, the programme helps prevent groundwater and river pollution and reduces open defecation practices. Health-wise, there is a reduced risk of diseases caused by polluted water, such as diarrhoea and typhoid. Economically, the programme creates jobs and increases local revenue. Continuous innovation and collaboration between stakeholders are key to the success of this programme in creating safe and sustainable sanitation in Gresik District.

Source:
Department of Human Settlements, Housing and Settlement Areas, Gresik Regency

1.1.3.2 Access to Safe and Efficient Public Transport Systems

No. 44 Percentage of Commuters Using Public Transport

Kereta Api Indonesia (KAI) Commuter Line and integration of public transport modes in Jakarta

KAI Commuter*, the* operator of *KRL Commuter Line* services in Indonesia, has a long history dating back to the colonial era. The first electric train service operated on 6 April 1925 on the Tanjung Priok-Meester Cornelis (now Jatinegara) line. In the 1970s, the service was known as electric train of Jabotabek, then changed its name to KRL Jabodetabek in 1999. A major transformation took place in 2008 with the formation of PT KAI Commuter Jabodetabek, which later changed its name to PT Kereta Commuter Indonesia (KAI Commuter) in 2017.

In terms of achievements, KAI Commuter recorded significant growth. Throughout 2023, the Jabodetabek electric train service carried 290.89 million passengers, an increase of 35% compared to the previous year. Overall, including services outside Jabodetabek, total passengers reached 331.89 million people, almost matching the pre-pandemic figure in 2019.

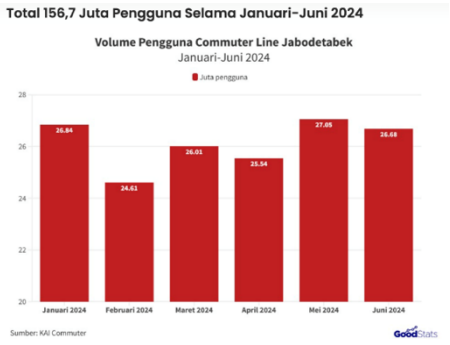
In the first quarter of 2025, KAI Commuter served 93.77 million passengers, a 6% increase compared to the same period the previous year.

The integration of transport modes into the Commuter Line system in Jakarta is one of the main pillars of public transport transformation that supports the city's success in achieving the Sustainable Transport Award (STA) 2021. Through the JakLingko (Jakarta Lingkungan Koperasi) scheme, the Provincial Government of DKI Jakarta developed an integrated transport system that connects various modes, such as microbus (angkot), Transjakarta, Mass Rapid Transit, Light Rapid Transit, and Commuter Line KRL, both physically and in a single payment system. Transjakarta also began developing an electric bus fleet which was trialled in 2021 and has a target to convert all its fleet into electric buses by 2030.

Data on Jakarta Commuter Line users (Commuter Line Jabodetabek) shows that KAI Commuter serves a total of 1,048 trips per day with 87 trains. Tanah Abang Station recorded 3,233,823 departures and 3,120,035 arrivals. The average Jabodetabek Commuter Line user is more than 973,000 people per weekday. The detailed data on the number of trips are: a) Bogor: 379 trips, b) Cikarang: 260 trips, c) Rangkasbitung: 199 trips, d) Tangerang: 124 trips, and e) Tanjung Priok: 86 trips.

Transit users (average per day) consist of: 1) Manggarai: 125-160 thousand people, 2) Tanah Abang: 100-130 thousand people, and 3) Duri: 45-65 thousand people. Payment integration can be done through: 1) Multi Trip Card (KMT), 2) Bank Electronic Money, and 3) QR-Code tickets through the Partner application. Basoetta *Commuter Line* users consist of a total of 101,987 people (September 2023) with an average of 6,174 people on weekdays and 5,679 people on weekends. While Merak *Commuter Line* users consist of a total of 377,558 people (July 2024) with an average of 11,217 people on weekdays and 14,947 people on holidays/weekends.

KAI Commuter also released data entitled Achievement of KAI Commuter Performance for the January-June 2024 Period. In the release, it was stated that 156.7 million users had used commuter line services in the Jabodetabek area. During January-June 2024, Jabodetabek Commuter Line trips were recorded at 1.09 million on weekdays, and as many as 1.06 million trips on weekends and holidays. The station in Commuter Line Jabodetabek with the highest volume of users is Bogor Station, with 16.7 million users. Most trips are during weekdays, as evidenced by the highest user hours at 6am and 5pm.



The usage of electric train Jabodetabek which reaches an average of more than 973 thousand passengers per weekday, with a peak at Bogor Station during morning and evening peak hours, shows the effectiveness of this integration in shifting people from private vehicles to public transport. The realignment of electric train stations such as Tanah Abang, Manggarai and Duri also strengthens intermodal connectivity, as they serve hundreds of thousands of transit users per day. The payment system is also simplified through the Multi Trip Card, bank electronic money, and Mitra QR-code application. This success is reinforced by the various awards achieved by KAI Commuter, such as the Corporate Reputation Award 2023 and

international medals at the CCW 2024 (Contact Center World) and APQO 2024 (Asia Pacific Quality Organization), confirming the quality of service and innovation that supports the realisation of sustainable and inclusive transportation in the Jabodetabek area.

Source: https://goodstats.id/article/juni-2024-commuter-line-jabodetabek-tembus-26-6-juta-pengguna-Uk9Jf

1.1.3.3. Access to Modern Renewable Energy

No. 77 Renewable energy share in the total final energy consumption

Communal Solar Power Plant in Kutai Kartanegara

The Kutai Kartanegara Regency Government has addressed the problem of lighting in 17 villages that have not been covered by the electricity network through the Terang Kampongku Programme by the Kutai Kartanegara Village and Community Empowerment Agency (Dinas Pemberdayaan Masyarakat dan Desa/DPMD). Since 2021, this programme includes the installation of a communal solar power plant. One year later, it has then built the State Electricity Company networks in Muhuran Village and Sebelimbingan Village in Kota Bangun Subdistrict, Tuana Tuha Village and Teluk Muda Village in Kenohan Subdistrict, as well as Tanjung Batuq Harapan Village and Muara Muntai Village. DPMD has also built communal solar power plant in Menamang Kanan Village, Menamang Kiri Village, and Tunjungan Village in Muara Kaman Sub-district. Communal Solar Power Plants, also known as Off Grid Centralised Solar Power Plants or Centralised Solar Power Plants, are solar power producing systems that operate independently in areas where there is no State electrical Company for the electrical network.

These communal solar power plants were established with funds from the Kutai Kartanegara Regional Budget and the Provincial Budget. In 2023, DPMD solved the electricity crisis in Muara Kaman District by building a communal solar power plant in Kupang Baru Village, Liang Buaya Village, and Nangka Bonah Hamlet in Tunjungan Village. The Village Special Financial Assistance Programme provided money for such development, which were transferred to the village and included in the regional financial budget. The communal solar power plant is expected to improve residents' quality of life. Bersinar Desaku, a Muara Enggelam Village resident, manages the solar power plant.

The electricity from solar power plant flows to a total of 160 houses and to several public facilities where each customer gets an allotment of 300-500 *watts*. The solar power plant also generates significant revenue. To obtain solar-powered electricity, customers are required to pay IDR 90,000 per fortnight to Local Government Owned Enterprise (BUMDes) of Bersinar Desaku. From this business activity, the BUMDes earns Rp 12-14 million per month.

Communal solar power plant in Kutai Kartanegara, specifically in Muara Enggelam Village, has been operating since 2015 and has successfully provided energy independence for the village community. This solar power plant has a capacity of 30 KWp and managed by the

Village Government through Village Regulation that regulates retribution, maintenance, and management of retribution proceeds for solar power plant operations and maintenance. The village government created a Perdes to regulate the management of the solar power plant, including the retribution paid by residents and the use of the retribution funds.

Besides Muara Enggelam Communal Solar Power Plant, there are also other examples of centralised solar power plants, such as Cirata Solar Power Plant in West Java which is the largest solar power plant in Southeast Asia and Likupang Solar Power Plant in North Sulawesi.

Source:
https://www.hexamitra.co.id/plts-terpusat-pembangkit-listrik-tenaga-surya.php#:~:text=Pembangkit%20Listrik%20Tenaga%20Surya%2C%20PLTS,tidak%20terdapat%20jaringan%20grid%20/%20PLN.
https://docs.google.com/document/d/1kcTg3bRKMF3tOPltzq5XLYDWakO6i_fw/edit

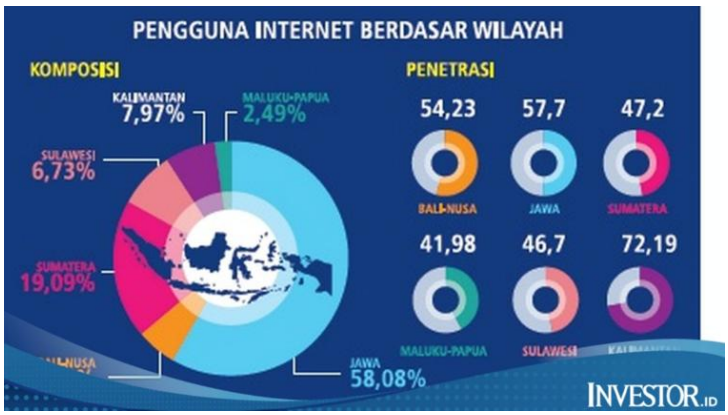
1.1.3.4. Access to Information Communication Technology (ICT)

No. 25: Fixed Internet *broadband* subscriptions per 100 inhabitants, by speed

Indonesia Broadband Network Market

The main Internet Service Provider (ISP) in Indonesia is Telkomsel, which controls three-quarters of the market. Telkomsel offers xDSL and fibre services, as well as FWA services through its subsidiary Telkomsel Mobile. Telkomsel provides *fibre* services under the IndiHome brand, which has reached 38 million homes across Indonesia. Meanwhile, Telkomsel offers FWA services under the Orbit brand. *Fibre* service provider Icon Plus is the second player in the market, accounting for 7% of fixed *broadband* connections in Indonesia. Most ISP providers offer *fibre* services, *Biznet*, Indosat HiFi, Orbit, and XL also offer FWA services, while First Media is the only major ISP in the country to offer cable services.

Opensignal has analysed the real-world broadband experience of users in 10 cities in Indonesia, namely Depok, Jakarta, Bandung City, Bekasi City, Malang City, Tangerang City, Medan, Semarang, Surabaya and South Tangerang. To reflect the different ways broadband is used, three different benchmarks of broadband user experience were analysed: Broadband Video Experience, Broadband Download Speed, and Broadband Upload Speed. Taken together, these benchmarks illustrate the different ways users utilise *broadband* services, from remote work and education to video streaming and gaming.



Biznet won for Download Speed in two cities in Indonesia, Jakarta and Bekasi City. Biznet also shared the win in eight other cities, including six cities that shared the winner's podium with First Media. Biznet secured first place in Upload Speed in Depok City, Jakarta City, Bandung City, Bekasi City, and Tangerang City. The internet service provider was also a joint winner in four cities in Indonesia, losing only in Semarang. MyRepublic shared the Upload Speed top position in four cities, while First Media in three cities.

Opensignal observed fierce competition in the Video Experience top positions across various cities in Indonesia, resulting in a series of joint leaders, with the number of joint leaders ranging from 2-6, depending on each city. First Media was the joint leader in a total of 10 cities featured in Opensignal's report, followed by Biznet with seven joint leads, while CBN and IndiHome were joint first leaders for six times.

IndiHome and Biznet are two leading fixed broadband internet service providers in Indonesia, each with a history, strategy and achievements that reflect a different approach in serving people's digital needs. IndiHome, launched by Telkom Indonesia in 2015 to replace Speedy service, has grown rapidly and become the market leader in fixed broadband in Indonesia. In 2021, IndiHome controlled around 87% market share with 8.1 million subscribers.

This number continues to increase, reaching 10.8 million subscribers in 2024, with revenue of Rp26.3 trillion. IndiHome's integration into Telkomsel in July 2023 strengthens the Fixed Mobile Convergence (FMC) strategy, allowing customers to enjoy integrated fixed and mobile internet services. IndiHome has also extended its service coverage to Indonesia's outer islands, such as Bintan, Karimun, and Rote, with more than 166,000 kilometres of fibre optic infrastructure.

Biznet started its operations in 2000 and focuses on providing high-speed internet services using fibre optic network. Although its market share is smaller than IndiHome, which is around 1.54% in 2022, Biznet has built a fibre optic network of more than 61,000 kilometres, covering more than 160 cities in Indonesia. Biznet is known for its excellence in download and upload speed, as well as service consistency in many major cities.

In 2022, Biznet won the "Indonesia Most Engaging Brand" award in the fixed broadband category, reflecting high customer satisfaction and engagement. A comparison between IndiHome and Biznet shows that IndiHome excels in terms of wide coverage and integration of fixed and mobile services, while Biznet stands out in terms of service quality and customer satisfaction in the areas it serves. Both providers play an important role in improving *broadband* internet access and quality in Indonesia during the 2020-2024 period.

Source:
https://www.opensignal.com/in/reports/2024/07/indonesia/fixed-broadband-experience
https://www.tek.id, Bisnis.com, Home, liputan6.com

1.2.1.1. Promote productive employment for all including youth employment

No. 11: Proportion of young people (aged 15-24 years) not in education, employment or training

Promoting Productive Employment for Young People in Indonesia

Young people aged 15 to 24 represent the nation's future and must be given the best possible opportunities. However, the high proportion of youth who are not in school, work, or training, known as *NEET* (Not in Education, Employment, or Training), poses a serious challenge to Indonesia's development. Data from the Statistics Indonesia in 2023 shows that the NEET rate of Indonesian youth is still around 19.7%, which risks causing long-term social and economic problems. The Government of Indonesia (GoI) has responded to this challenge through innovative programmes that focus on creating productive jobs and enhancing the skills of young people. One of the flagship programmes is the Job Loss Guarantee (Jaminan Kehilangan Pekerjaan/JKP), which not only provides social assistance for laid-off workers, but also facilitates reskilling and upskilling. This program primarily targets youth to help them gain

new skills that are relevant to the changing needs of the labor market. Data analysis studies from 514 districts/cities show that every 1% increase in youth participation in the JKP programme reduces the proportion of NEETs by 0.62**%** (Ministry of Manpower, 2024). This means that JKP plays a significant role in reducing the number of unemployed or unproductive youth by providing an effective second chance to re-enter the workforce.

In addition to Kartu Prakerja, the Pre-Employment Card (Kartu Prakerja) Programme is a revolutionary breakthrough in increasing the capacity of Indonesia's young workforce. Based on digital technology, Kartu Prakerja offers online training that is easily accessible without geographical and time constraints. Participants, especially those who are unemployed or not currently in school, can take part in various skills courses that are in line with the latest industry and labour market needs. The financial incentives provided post-training are an additional motivator for participants to improve their skills. The programme has reached more than 12 million participants across Indonesia, with independent evaluations revealing an increase in participants' employment and entrepreneurship opportunities by 20-30**%** (National Team for the Accelerating Poverty Reduction and World Bank, 2022). The programme's tangible contribution is reflected in the reduction of NEET rates among youth, while strengthening financial inclusion with innovative digital payment methods.

These two programs demonstrate the value of collaborating on skills training, social protection, and technology innovation in fighting youth unemployment. Such a complete approach has both economic and social benefits, such as lowering the likelihood of poverty, improving youth economic independence, and encouraging entrepreneurial spirit. The success of the Kartu Prakerja and Pre-Employment Card programmes is an important foundation for Indonesia's human capital development strategy to compete in the global era and realising the vision of a sustainable and inclusive Indonesia Emas 2045.

Source:

1. Statistics Indonesia. (2023). Indonesian Labour Statistics.
2. Ministry of Manpower of the Republic of Indonesia. (2024). Job Loss Guarantee Programme Evaluation Report.
3. National Team for the Acceleration of Poverty Reduction (TNP2K) & World Bank. (2022). Evaluation of the Pre-Employment Card Programme: Impact on Youth Employment and Entrepreneurship.

4. Coordinating Ministry for Economic Affairs of the Republic of Indonesia. (2022). Pre-Employment Card Webinar: Indonesia's Digital Transformation and Financial Inclusion Breakthrough.
5. https://www.kompas.com/tren/read/2021/12/02/073000565/infografik--syarat-dan-cara-daftar-program-jkp-bpjs-ketenagakerjaan

1.2.1.1. Promote productive employment for all including youth employment

No. 8: Annual growth rate of real GDP per employed person

Contribution of Special Economic Zones to Economic Growth and Youth Employment in Morotai, Tanjung Lesung, and Batam

The concept of Special Economic Zones (SEZs) or *Kawasan Ekonomi Khusus* (KEK) in Indonesia was introduced through Law no. 39 of 2009 in response to the challenges of globalisation and the need to create competitive centres of economic growth. SEZs are designed to improve economic competitiveness, address development imbalances, as well as labour absorption and technology transfer.

There are 19 active SEZs with cumulative investment of IDR450 trillion (BKPM 2024) with the largest contributions in the manufacturing (55%), tourism (25%) and logistics (20%) sectors. For labor absorption, 45% (146,250 workers) are young people under 30 years old, in line with the SEZs' labour inclusiveness with a distribution of 60% in the manufacturing sector, 25% in the tourism sector and 15% in the logistics services sector. The real Gross Domectic Product (GDP) per worker in SEZs grew 8.2% (yoy), higher than the national average of 5.1%. The success of SEZs seen in Batam, Tanjung Lesung, and Morotai has become a driving force for urban economic growth and productive job creation that emphasises exclusive economic development, sustainable job creation, and increased worker productivity (real GDP per person).

Morotai SEZ has a Regional GDP contribution (2024) of 15%, successfully increasing the competence of 1,500 young workers in vocational training programmes (800 fishermen in the Marine Skill Center programme, and 700 tourism and logistics workers) and employment of 9,200 people (including those not through training). Total investment collected IDR 7.8 trillion which focuses on the construction of Morotai International Airport, the development of the Bitung-Morotai Ocean Port (nodal hub for Eastern Indonesia trade), and the Morotai Integrated Tourism Zone project (resort and WWII history museum). The economic impact in Morotai has increased in the fisheries export sector (shrimp and seaweed) by USD85 million/year, tourist visits of 350,000 people/year which has escalated 3 times since 2020, in addition to 300 MSMEs involved in the tourism and fisheries supply chain.

Tanjung Lesung SEZ has a contribution to Regional GDP (2024) of 8%, managed to absorb 18,500 people with a composition of 55% under the age of 30 (local Banten youth) and 3 0% women (Tanjung Lesung Women Empowerment inclusion programme), in addition there is vocational training of 1,200 fishermen for integrated marine tourism. The economic impact in

Tanjung Lesung is increasing in the tourism sector with an increase in tourist visits of 1.2 million people/year by 2024 (up 40% from 2023), in addition to 500 MSMEs involved in the hotel and restaurant supply chain. Yet, Tanjung Lesung also has future challenges such as transport access from Jakarta that needs to be improved and competition with Bali and Labuan Bajo as premium destinations.

Batam SEZ has become a regional economic locomotive with significant contributions to industrial growth, exports, and employment, as well as the most productive with 22% contribution to the GDP of Riau Islands with realised investment of IDR 180 trillion (30% of total domestic investment and 70% of total foreign investment). By 2024, the Batam SEZ has managed to absorb 55% or 220,000 workers under the age of 35 and 15% are foreign workers as technology specialists. Vocational programmes have also been implemented with Industrial Partner Vocational Schools with 20,000 certified graduates/year, in addition to AI and *robotics* training for 5,000 workers. From these developments, challenges remain, including dependence on foreign investors (60% of SEZ investment comes from abroad), supporting infrastructure such as electricity and ports in some SEZs are still lagging behind land utilisation remaining only 20% of the total SEZs, and minimum wage increases that reduce competitiveness.

Source:

1. BKPM - Specialised Data on Eastern Indonesia SEZs
2. North Maluku Local Government - Investment Report 2024
3. Ministry of Finance - Financial Memorandum 2024
4. North Maluku Government - Morotai SEZ 2024 Realisation Report
5. https://kek.go.id/id/investment/distribution/kek-morotai
6. BKPM Annual Report 2024
7. Official Site of Tanjung Lesung SEZ
8. BPS Banten - Tourism Data Q2 2024
9. https://kek.go.id/id/investment/distribution/kek-tanjung-lesung?activeTab=Kontak
10. BKPM - Batam SEZ Report 2024
11. BPS Kepri - Export Statistics 2024
12. https://kek.go.id/id/investment/distribution/kek-batam-aero-technic
13. https://kek.go.id/id/investment/distribution/kek-nongsa

1.2.1.3. Supporting Small and Medium Enterprises

No. 45: Small and Medium Enterprises as a Share of GDP

Micro, Small, and Medium Enterprises to Boost Economic Growth in Bontang City

The increasing number of micro, small, and medium enterprises (MSMEs) was quite significant in 2022, to more than 2,000 businesses. Such growth is inseparable from the central government's policy of providing national economic recovery funds in the form of productive working capital assistance to 12 million MSMEs worth Rp 2,400,000 for each MSME. This assistance is provided with simple conditions, such as having Business Identification Number (NIB).

The MSME sector in Bontang City, East Kalimantan, shows promising growth. Since 2021, the number of MSMEs in Bontang City has experienced significant growth. In 2021, there were

16,929 MSME, then increased to 19,065 in 2022, 19,467 in 2023, and reached 20,406 by the end of 2024. Despite the dominance of large sectors, MSMEs are developing as a potential new economic force, drawing investor interest and receiving strategic assistance from a variety of organizations.

North Bontang Sub-district is the centre of micro-economic growth, due to the presence of large industrial estates, such as PT Pupuk Kaltim and Badak LNG, with a strategic location and supported by sea access and 17 islands making a meeting point between industry, trade and fisheries. Superior products, such as Batik Kuntul, Fara Snack, and Ria Rasa Cake & Cookies reflect the innovation of MSME players that continues to grow. In addition, the presence of young digital MSME pioneers accelerates the digital transformation of this sector. On the other hand, West Bontang also has large potential. Culinary businesses, such as Pempek Anda, Abadi Rasa, and Sari Laut restaurant Mbak Zuly have become local icons, with supporting infrastructure, such as the city terminal and direct connections to Samarinda and Sangatta, this area has become Bontang's strategic economic gateway.

Strengthening the digital ecosystem of MSMEs is also a major concern. Several sub-districts have shown initiatives, such as the presence of young digital MSME pioneers and community literacy programmes promoted by various parties, such as family welfare and empowerment mobilization team as well as community leaders. In 2024, Bontang Municipality launched a 0% Micro Business Credit programme through the 'Bontang Kreatif' initiative, with a capital injection of Rp 25 billion to Bank Kaltimtara to support MSME financing. To expand the MSME market, the government also developed the Local Electronic Catalogue, which makes it easier for local businesses to market their products to government agencies without going through a tender process. Bontang's work in supporting MSMEs was also recognised nationally with the Mayor of Bontang winning the Merdeka Awards 2023 in the category of Innovative MSME Assistance Program.

Source:
https://radarbontang.com/umkm-maju-pemkot-bontang-melaju/
https://www.tnp2k.go.id/articles/community-empowerment-as-one-of-the-policies-for-poverty-reduction

Resilient Micro, Small, and Medium Enterprises, Growing Cities: Yogyakarta's Strategy to Reach 2025 Local Revenue Target

The Yogyakarta Municipality continues to increase its own-source revenue to support the city's development. The municipal government is targeting to reach Rp 1 trillion in revenue by 2025, a higher figure than in previous years. With more innovative strategies and strong cooperation between regional apparatus, the municipality is optimistic that the local revenue target of IDR 1 trillion by 2025 can be achieved. In Yogyakarta, Micro, Small, and Medium Enterprises (MSMEs) are the backbone of the regional economy with a strong character in the craft, culinary, and creative industry sectors. The government also actively supports the development of MSMEs through various programmes and initiatives. Yogyakarta has around 340,000 MSMEs, with 75% of them have gone digital.

The Yogyakarta Municipality, through the Department of Industry, Cooperatives, and SMEs, encourages the growth of MSMEs through various strategic programmes such as ''Karang Mitra Usaha (KaMU)'' which targets businesses owners over 28 years old. The programme provides training, product curation, six-month mentoring, and marketing facilitation in strategic locations, such as Plaza Malioboro, with measurable increases in business turnover.

The Yogyakarta Municipality also created SiBakul Jogja, a digital *platform* which provides data collection, training, product curation, marketing through Markethub, and access to facilities such as Kotagede Market Gallery and Malioboro Teras. SiBakul also enables MSME players to receive structured and data-driven coaching, helping them to upgrade sustainably.

Another innovation is the BERPENDAR programme initiated by Balai Besar POM Yogyakarta. This programme succeeded in increasing the number of MSMEs with a distribution permit number (NIE) from 56 in 2019 to 388 in 2022. BERPENDAR shortened the licensing process from 71 working days to only 4 days, and provided cross-sector financing facilities worth more than Rp 3 billion for 237 MSMEs during the 2020-2023 period.

The growing MSME sector consists of: 1) culinary that offer various types of food and drinks typical of Yogyakarta, 2) *fashion*, 3) the agribusiness sector with MSMEs that process and sell agricultural products, and 4) various other fields, such as crafts, services, and others. MSME activities are provided with coaching and assistance from various parties, including the government, financial institutions, and the private sector. MSME activities are also assisted to improve the quality of their products through training, innovation development, and the introduction of halal certification. In addition, MSME activities are also encouraged to utilise digital media to expand market reach and increase sales. With the support of the government and various parties, MSMEs are expected to continue to improve product quality, expand market reach, and create jobs for the community.

Source:
https://warta.jogjakota.go.id/detail/index/35101

1.2.1.4. Promote an Enabling, Fair, and Responsible Environment for Business and Innovation

No. 26: Number of Days to Register a New Business

Simplification of Business Licences by Combining Permits in Jeneponto Regency

The various numbers and/or types of licences place a strain on the bureaucracy, the business world, and the community, resulting in a lack of investment competitiveness and private sector growth in the regions. The majority of licences in the regions are obtained from the Central Government, while others are granted at the discretion of the relevant Local Government body. If these administrative and policy barriers are not addressed immediately, they might become impediments to significant initiatives involving a productive investment-based economy.

The lack of integration of bureaucratic processes in regional and national licensing requirements has resulted in a high number of business licenses that entrepreneurs must process, slowing investment. Currently, about 180 rules and regulations govern licensing, influencing the number of permits in the regions. Often, these permits have the same substance but distinct names or words. The complexity of licenses that must be processed will undoubtedly raise the load on both the business world and the operations of local governments. The licensing bureaucracy reform policy should include a simplification program for licensing types in order to improve service quality and create a positive investment climate.

Licence simplification can be accomplished by addressing four areas: simplifying the types of licences, simplifying the conditions for getting licences, streamlining the process of issuing licences, and regulating the cost of acquiring licences. The goal of licence simplification is to reduce the number of different types of licences while keeping all applicable rules. This can be accomplished by eliminating and/or combining multiple types of licences. Jeneponto District in South Sulawesi Province is an area that has implemented licence simplification measures.

Jeneponto District has merged several licences that were previously fragmented across different sectors yet regulated the same thing into one licence. Prior to the simplification, businesses needed to apply for a few of separate licences including the Company Registration Certificate, Warehouse Registration Certificate, Tourism Business Registration Certificate, and Industrial Registration Certificate. After being merged into a Company Registration Certificate. The same applies to Industrial Business Permit, Trade Business Permit, and Pine Sap Tapping Licence which are simplified. Furthermore, there is a Health Worker Permit after simplification which initially included a Doctor's Practice Permit, a Nurse's Work Permit, a Midwife's Work Permit, a Midwife's Practice Permit, a Dental Nurse's Work Permit, a Dental Nurse's Practice Permit, a Pharmacist's Work Permit, a Pharmacy Technical Worker Permit, and a Refractionist Optician's Work Permit.

Simplification measures in Jeneponto District also cover the health facilities and infrastructure sector. Prior to simplification, businesses had to apply for various separate licence, including the Pharmacy/People's Pharmacy Licence, Optical Operator Licence, Micro Business of

Traditional Medicine, Industrial Food Production Certificate, Certificate of Good Health, Hospital Establishment Licence, Hospital Operational Licence, and Clinic Licence. After consolidation, all of them were simplified into Health Infrastructure Licence. In addition, simplification efforts were also made in the fisheries business sector. Previously, licences in the fisheries business sector were differentiated based on freshwater fish farming, brackish water fish farming, and fish transport. Subsequently, a simplification process was carried out into a Fisheries Business Licence.

The simplification of licensing through the merging of licences in Jeneponto District shows the commitment of the local government to improve efficient public services, especially for businesses. By reducing the number and types of licences, access to licensing services is easier and more integrated. The initiative not only streamlines the administrative process of the local government, but also improves the investment climate in the region and opens wider access to public services for the community.

Source:
https://www.kppod.org/backend/files/laporan_penelitian/penyederhanaan-perizinan-usaha.pdf

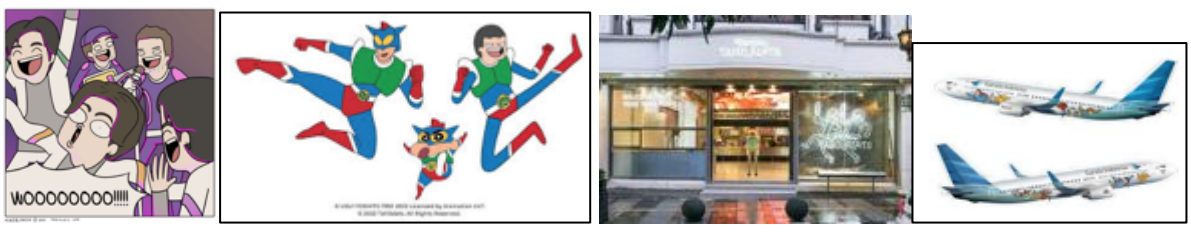
1.2.2.1. Support urban economic diversification and promote cultural and creative industries

No. 46: Employment in Cultural and Creative Industries as a Proportion of Total Employment

Tahilalats or Mind Blowon, Indonesian Comics

Tahilalats, also known as Mind Blowon, is an Indonesian-language online comic created and illustrated by Nurfadli Mursyid. This daily comic with humorous characters was first published through the @tahilalats account on Instagram in 2014. Tahilalats' popularity as a unique comic has reached overseas. In fact, Tahilalats has two global Instagram accounts in English (@tahilalats.en) and Chinese (@tahilalats.cn).

Tahilalats' success as a creative brand is reflected in various collaborations with well-known brands, including two collaborations with international band Coldplay in 2021, to promote the song "Higher Power" and Coldplay's collaboration with BTS on the song "My Universe". Another notable achievement was the collaboration with iconic Japanese character Crayon Shinchan to commemorate the cartoon's 30th anniversary. This collaboration evolved into a partnership with South Korean company *LocknLock*, which released special edition products, such as Tahilalats x Crayon Shinchan-themed food and drink containers. A local skincare brand, Somethinc, also released a collaborative collection that runs from January to February 2023. Garuda Indonesia teamed up with Tahilalats to create an aircraft livery with Tahilalats comic designs. This collaboration does not only enhance the visual appeal of the aircraft but also becomes a creative promotional medium that attracts public attention.



Tahilalats' success also extended to the culinary business through the establishment of Toko Tahilalats, a unique café located on Jalan Braga, Bandung, which presents a comic book-like atmosphere. The café has become a new attraction with a turnover of up to Rp 50 million per day. All these successes cannot be separated from the careful management of intellectual

property under INFIA, an IP development company. Tahilalats' success can be attributed to a precise and consistent IP development strategy, as well as government support for local IP promotion facilities, allowing more creative economy companies to enter national and worldwide markets. Tahilalats does not only become an icon of online comics, but also a symbol of effective intellectual property monetization in Indonesia's creative industry.

The author of the webcomic Tahilalats recognized that entering a business-based creative profession needed discipline and structure. He formed a team of eight people, six in the creative division and two in business and marketing. Although the comic strips are updated daily, the content is planned well in advance, with enough stock for the next six months. This allows the team to focus on other projects, such as brand collaborations, events, animations, books, and designs for clients.

Tahilalats' main revenue comes from social media platforms, especially Instagram, which accounts for about 70%-80% of total revenue. By 2024, they are targeting up to 5 billion in revenue from Instagram. In addition, product licensing accounts for about 40% of revenue, with plans for further expansion in this area. In 2017, Tahilalats achieved revenue of about 4 billion through sticker sales on the short message application system. However, having recognized the limited lifespan of the platform, they continue to innovate and expand business lines.

One of their strategic moves is to enter the international market by providing exclusive paid content. They have started translating comics and setting up a website for a global audience, with the ultimate target by 2025. With more than 2.4 million followers on Instagram and nearly 3 million subscribers on WEBTOON, Tahilalats has become one of the most popular webcomics in Indonesia. This achievement highlights the enormous potential of local intellectual property in the digital creative economy, as well as the need of diversification and flexibility in response to market changes.

Source: Kemenparekraf, 2023

1.2.2.1. Supporting Urban Economic Diversification and Promoting Cultural and Creative Industries

No. 12: Manufacturing Employment as a Proportion of Total Employment

Manufacturing Jobs as a Contributor to National Gross Domestic Product

Manufacturing jobs accounted for about 13.83% of the total working population in Indonesia or 20.01 million people in August 2024. This indicates that about one in eight people working in Indonesia are engaged in the manufacturing sector. The manufacturing sector is also the largest contributor to the national Gross Domestic Product (GDP) at 18.98%. The growth of the manufacturing sector experienced a growth of 4.43% in 2024.

Middle-class employment in the manufacturing sector accounts for the greatest number of middle-class positions in Indonesia, compared to other economic sectors. This suggests that the manufacturing sector is vital to the Indonesian economy, both in terms of employment creation and adding value to the national GDP. However, inequalities exist in the welfare of workers in the manufacturing sector. Despite their significant contributions to the economy, many workers continue to struggle to satisfy the basic necessities of life. Indonesia's manufacturing industries include 1) food and beverage, 2) textile, 3) chemical, 4) electronic, 5) pharmaceutical, 6) metal, and 7) energy.

Currently, the manufacturing industry contributes around 20% to the national GDP and is one of the main sectors in state revenue, contributing 30% of total taxes. For example, an entrepreneur named Tjokrosaputro who started his family's textile company (Batik Keris) in 1974 in Solo, Central Java, his only employees were his two sons. However, within a few decades, his company transformed into one of the largest integrated textile and garment manufacturers in Indonesia, supplying products for well-known global companies in more than 20 countries as well as the Indonesian domestic market. In the process, the company has expanded its workforce to over 8,000 individuals with fair compensation and educational scholarships offered to the families of its employees.

According to the World Bank's research, Steps Toward Middle Class Employment in Indonesia, domestic enterprises that are directly integrated with global industries, such as multinational companies that establish local affiliates in Indonesia, are a good source of job creation. In addition to creating more jobs, such companies' salaries tend to be higher than the average for other enterprises, helping more Indonesian households to enter the middle class. To foster the establishment of "middle-class jobs" in Indonesia, defined as jobs that allow the ordinary Indonesian household to live a middle-class lifestyle, diverse stakeholders must collaborate to create a new generation of such businesses.

In 2018, the manufacturing sector as a whole contributed the highest number of middle-class jobs in Indonesia compared to other economic sectors. Many of these jobs came from medium- and large-scale manufacturing companies. However, job creation in medium and large manufacturing firms fluctuated significantly in the past three decades. Starting in the early 1990s, the growth of manufacturing exports resulted in a booming labour force in large and medium manufacturing firms. This was abruptly halted by the Asian financial crisis in 1997-1998. This period was followed by a decade of "hollowing-out" (2000-2009) when average annual job creation in medium and large manufacturing firms fell to just 12,798 new jobs, compared to 258,681 new jobs created annually on average between 1991 and 1996. The development and dynamism of Indonesian manufacturing firms in the aftermath of the Asian financial crisis has been hampered by fewer new firms entering and surviving, with jobs increasingly being absorbed by older and larger firms.

However, between 2010 and 2015 Indonesia experienced a turnaround with manufacturing employment growing by an average of more than 150,000 new jobs each year, although the rate of job creation did not return to pre-crisis levels. Most of these new jobs were found in export-orientated manufacturing sectors, such as textiles, garments and apparel. To create more middle-class jobs going forward, Indonesia should focus on unlocking the entry and growth of new companies that are integrated with global value chains.

Source:
Https://Blogs.Worldbank.Org/In/Eastasiapacific/Manufacturing-Employment-In-Industrial-Global-As-First-Driver-of-Field-Creation#:~:Text=In%20the%20year%202018%2C%20the%20manufacturing%20sector,%20medium%20and%20large%20manufacturing%20enterprises.

1.2.2.2. Develop Technical and Entrepreneurial Skills to Thrive in a Modern Urban Economy

No. 47 Annual Number of Vocational and Technical Education Individual Trained

Pekalongan City of Crafts and Folk Art

Pekalongan City has been designated a "World Creative City" by UNESCO in the Craft and Folk Art category. Awarded in 2014, the city is renowned for its strong craft tradition, especially hand-drawn batik that has been part of the local culture for centuries. Pekalongan gained the nickname "Batik City" because the batik production process is primarily done at home, making Pekalongan batik profoundly ingrained in people's life. The batik tradition is still being kept alive and passed down to future generations. In addition to batik, Pekalongan City contains a number of other handicrafts and folk arts that should be protected and developed.

Pekalongan is famous for its high-quality batik handicrafts, with various types of stamped batik, written batik, and combination batik. The Pekalongan Municipality and the Regional National Craft Council (Dewan Kerajinan Nasional Daerah/ Dekranasda) of Pekalongan City continue to support economic growth through textile arts and crafts. Dekranasda is a forum that fosters Small and Medium Enterprises, especially in the field of crafts to be able to create and innovate to develop a variety of products to improve the economy of the community while encouraging economic growth and cultural preservation in Pekalongan City.

The Pekalongan Municipality also endeavours to build a productive society through knitting craft training activities. The knitting craft training was conducted by craft experts who have existed since 2017, independently working in the art of knitting. These craft experts have also often participated in training and exhibitions outside the city, so they were given the opportunity to become resource persons in this training activity. The skill participants are residents who have been included in the Integrated Social Welfare Data in each village. This is aimed at social empowerment. This programme is expected to have a good impact on the participants by equipping them with basic knitting knowledge to be developed and improve community welfare.

The batik industry in Pekalongan City is dominated by small and medium enterprises (SMEs) that absorb significant labor. Based on data from the Center for Crafts and Batik, Indonesia's batik sector, which is mostly in Pekalongan, has 47 thousand business units and absorbs 200 thousand workers. In addition, there is information that 60% of batik workers in Pekalongan are ''mbabar'' laborers (workers who work on the batik process at the entrepreneur's house).

The export value of batik from January to July 2020 reached US$21.54 million, while in the period from January to June 2019 the figure was at US$17.99 million. The growth in the export value of batik is due to the increasing diversification of batik products. Based on this potential, the craft and batik industry is supported as one of the sectors that can support the National

Economic Recovery agenda. The countries that are the main markets for Indonesian batik include Japan, the United States, and Europe.

According to the local Industry and Manpower Office, there are 871 MSMEs in the batik business sector in Pekalongan City, and they have managed to withstand the Covid-19 pandemic, with an increase in the number of business players. Given the huge potential, the government is dedicated to continuing its efforts to develop new markets on a worldwide scale. This project is expected to help strengthen the performance of the national batik sector in the aftermath of the pandemic while also introducing diverse traditional Indonesian batik.

Source:
https://pekalongankota.go.id/berita/dekranasda-dorong-pertumbuhan-ekonomi-lewat-seni-kr

1.2.2.3. Strengthen urban-rural linkages to maximise productivity = 2.2.1

No. 20: Does your country have a National Urban Policy or Regional Development Plan that (a) responds to population dynamics, (b) ensures balanced territorial development, and (c) increases local fiscal space

Strengthening Urban-Rural Linkages in Mojokerto City

Improving infrastructure, fostering innovation, and expanding access to knowledge and resources can all help to strengthen urban-rural linkages and boost production levels. This attempts to help close the gap between urban and rural areas and increase the well-being of people in both regions. Improving infrastructure, such as roads, bridges, and public transportation, can improve connectivity between urban and rural areas.

Facilitating people's mobility, goods, and services, also mean to increase economic and social efficiency, as stipulated in Government Regulation Number 59 Year 2022. It regulates the form and clarification of urban areas, the implementation of urban management, and funding. To strengthen urban-rural linkages, robust internet connectivity and digital services that connect rural populations to global markets and urban services are required. This provides prospects for the growth of small and medium-sized businesses, as well as education and health services.

Improving basic infrastructure, such as clean water, sanitation and electricity can improve the quality of life of rural communities and encourage investment in the area. Innovation and resource development can be done in the agricultural sector by increasing agricultural productivity through modern agricultural technology, training, and access to markets, to increase the income of rural communities and provide better food supply for cities. In addition, it also needs to be encouraged through the small and medium enterprise sector.

The relationship between Mojokerto City and Mojokerto Regency illustrates a strong urban-rural linkage. Mojokerto City provides various urban facilities, while Mojokerto Regency has strengths in agriculture and industry. Residents from both areas interact regularly to meet their daily needs, with people commuting between urban and rural areas for work, education, and recreation. This connection is driven by socioeconomic factors, where the city depends on rural areas for raw materials and labor, and rural residents rely on urban amenities.

These urban-rural linkages reflect a reciprocal relationship. People travel to meet basic needs and access services, showing a complementary dynamic. The flow of people and goods between villages and the city indicates transferability, while limited resources and facilities in one area create intervening opportunities in another, motivating movement.

Mojokerto City functions as a hub of public services and activity for the surrounding district. It offers comprehensive urban amenities, including healthcare, education, trade, and recreational facilities, which attract residents from the peri-urban areas of Mojokerto Regency. This makes the city a central service provider, especially for bordering communities.

Mobility between Mojokerto City and District is influenced by available infrastructure, economic opportunities, and service quality. Urban attractions such as shopping centers and entertainment venues draw villagers, fostering continuous interaction and movement. Peri-urban areas serve as intermediaries, facilitating smoother connections and enhancing rural-urban integration.

Source: journal.uns.ac.id

1.3.1.1 Addressing the spread and loss of urban biodiversity

No. 15: Ratio of land consumption rate to population growth rate

Yogyakarta and the Compact City Strategy

Yogyakarta, as one of the cultural and educational centres of Indonesia, faces serious challenges in managing urban growth. With a population of 414,705 in 2023, the city has a population density of 12,636 people per square kilometre. Such high density puts pressure on infrastructure and the environment, threatens the sustainability of biodiversity due to land conversion and fragmentation of natural habitats.

To address these challenges, the Yogyakarta Municipality, together with various stakeholders, is implementing an urban compactness strategy. This approach focuses on increasing density

and land use efficiency in peri-urban areas, in order to reduce uncontrolled spatial expansion. Research shows that every one unit increase in the compactness level of peri-urban sub-districts can reduce by 0.429 units the rate of spatial change in sub-urban areas. This means that controlling the horizontal growth of the city can be done by strengthening the existing spatial utilisation, preventing uncontrolled expansion, and at the same time, preserving the local ecosystem intact.

Yogyakarta has also implemented various concrete initiatives that reinforce the concept of a compact and biodiversity-friendly city. Some of the best examples include:

1. Wisdom Park UGM. Universitas Gadjah Mada developed Wisdom Park, a 6-hectare green open space that serves as a biodiversity conservation and education area in the centre of the city. The park is not only an environmental research centre, but also a public space that supports the social-ecological functions of the city.

2. *Urban Beekeeping* in Mrican Village

In densely populated neighbourhoods such as Padukuhan Mrican, Sleman, communities together with academics develop klanceng (Meliponini) bee farming. This initiative strengthens the crop pollination chain in urban environments, maintains the existence of important species, while empowering the economy of residents.

3. Animal Life in Urban Greenways

A study conducted in green lanes along roads in Yogyakarta City found the presence of 12 bird species with a moderate level of diversity. This proves that even a small green space, if managed well, can still be an important habitat for wildlife and support the city's ecosystem.

By combining compact and efficient spatial planning strategies with community and institutional practices, Yogyakarta has demonstrated that compact cities not only contribute to spatial efficiency, but also to biodiversity conservation amidst the challenges of urbanisation. This approach serves as an important example for other cities in Indonesia in developing development models that are sustainable, adaptive, and inclusive of ecological values.

Source:

1. Population and Civil Registration Office of Yogyakarta City. (2023). *Population Profile of Yogyakarta City in 2023*. Accessed from: https://dindukcapil.jogjakota.go.id
2. Hidayati, N. R. (2015). *Sub Urban Space Transformation: Study of Urban Sprawl and Urban Compactness Strategy in Urban Yogyakarta*. Thesis, Gadjah Mada University. Accessed from: https://etd.repository.ugm.ac.id
3. PSLH UGM. (2022). *Urban Green Open Space: Looking at a patch of Hoya Park on the Rooftop of PSLH UGM*. Accessed from: https://pslh.ugm.ac.id
4. Faculty of Biology UGM. (2022). *Urban Beekeeping for Biodiversity Conservation and Education*. Accessed from: https://biologi.ugm.ac.id
5. Sularso, E., & Mardiana, R. (2020). *Land Use Change and Productive Yard Landscape in Godean Region, Sleman*. *Journal of Man and Environment*, 27(3). Accessed from: https://jurnal.ugm.ac.id/JML/article/view/53401
6. Dwiatmoko, A. A. (2021). *Identification of Bird Biodiversity in Urban Greenways of Yogyakarta City*. *Journal of Animal Husbandry and Fisheries Sciences*, IPB. Accessed from: https://journal.ipb.ac.id/index.php/JIPI/article/view/32441

1.3.1.1 Addressing the spread and loss of urban biodiversity

No. 48: Proportion of land under protected natural areas

Kokolomboi Lestari Programme in Leme-Leme Darat Village, Bungko District, Banggai Islands Regency, Central Sulawesi

The Kokolomboi Lestari programme in Leme-Leme Darat Village, Buko Sub-district, Banggai Islands Regency, Central Sulawesi, is a forest conservation initiative based on the empowerment of the Togong Tanga indigenous community. The programme is run by PT Pertamina EP Donggi Matindok Field (PEP DMF) with active support from the Banggai Islands Regency Environment Office. This Corporate Social Responsibility (CSR) programme also aims to implement the empowerment of vulnerable people of the Togong Tanga indigenous group who belong to Sea-Sea tribe. The programme focuses on four pillars including economy, education, environment, and infrastructure which aim to establish a community that is independent, prosperous, and environmentally conscious. Through the programme, DMF also supports the Sustainable Development Goal's specifically goal number 8 Decent Work and Economic Growth, number 10 reduced inequality, number 13 Climate Change Management, and number 15 Terrestrial Ecosystems.

Data in Banggai District shows that land conditions are very critically degraded in forest areas by 144.86 Ha, and critical land by 28,026.87 Ha hence have also threatened endemic animals of Peleng Island, such as Tarsier and Banggai Crow. To ensure the program's long-term viability, the community's economic conditions must be enhanced in environmentally friendly methods that are consistent with the program's implementation goals. The company collaborated with other partners to develop an environmentally friendly stone and branch honey bee farming innovation called the palm trunk bee house. This idea has prevented honey farmers from harming trees and cliffs in the Kokolomboi area.

Honey bee farming is one of the efforts to rehabilitate forest regions, with bees serving as pollinators for plants in the area. Furthermore, honey bee production provides a source of income for the community that was previously dependent on selling forest timber and hunting animals. There are ten honey farmers in the Kokolomboi Biodiversity Park area, with a harvest capacity of 800-1,200 litres per year. The Kokolomboi honey farmer organization also includes honey growers from outside the area to suit market demand; thus far, 245 members have joined, with a production capacity of 8,400 litres per year.

In addition to economic benefits, this programme has had an impact on environmental improvement through land restoration of 4 hectares and ecosystem restoration by planting 2,500 endemic flora seedlings which also serve as food enrichment for endemic animals. The improvement of the environment is also shown by the increase of endemic animals Tarsius Peleng from 17 to 46 animals and the increase of Banggai Crow from 1 to 8 animals.

The success of this programme was recognised nationally with the Proklim Tropi award in the Main Category from the Ministry of Environment and Forestry in 2021, as well as the Indonesia Green Awards 2022 for the biodiversity development category. The collaboration between PEP DMF and the Banggai Islands District Environment Office is an example of synergy between the private sector and government in conservation and community empowerment efforts.

Source:
https://kumparan.com/kumparanbisnis/kokolomboi-lestari-program-donggi-matindok-field-jaga-hutan-adat-togong-tanga-21XnMthnOhl
https://www.instagram.com/pepc.pertamina/p/C9lgD08TGvn/?img_index=1
https://kumparan.com/kumparanbisnis/kokolomboi-lestari-program-donggi-matindok-field-jaga-hutan-adat-togong-tanga-21XnMthnOhl/2

1.3.1.2. Climate change mitigation and adaptation measures

No. 3: Mortality rates attributed to household and ambient air pollution

Samarinda City: Doctor on Call

The Samarinda municipal administration implements the Doctor on Call program to solve existing issues, particularly pre-hospital emergency medical services, with the goal of improving access to health care, speeding up services, and lowering mortality rates owing to treatment delays. The program focuses on the elderly, infants, toddlers, pregnant women, and residents who require rapid treatment to avoid death. The Doctor on Call programme has been in operation since the end of 2021, and in 2022, the Samarinda City Mayor Regulation Number 4 of 2022 was issued regarding the implementation of Doctor on Call Services.

In 2023, the program is connected with the Emergency Management System 119, utilizing the 119 hotlines as a communication tool and the Medical Emergency Algorithm guidelines as a communication business to triage calls. The program is offered free of charge to the community, making it incredibly valuable. The system allows for telemedicine consultation and treatment of patients over the phone before health staff take action. The Doctor on Call program prioritises ten emergency care cases: serious bleeding, open fractures, loss of consciousness, severe shortness of breath, seizures, severe head injury, severe chest pain, severe dehydration, airway blockage, and respiratory arrest.

Doctor on Call also synergises with 112, so it does not only handle emergency cases. However, it also handles cases outside the emergency department, such as the fire that occurred in the Ijabah Market area some time ago. Doctor on Call came down to help deal with residents affected by the fire. Doctor on Call is also trusted by to be the emergency security team at the OICCA (Organisation of Islamic Cooperation Cultural Activity) international event which took place in Samarinda City. Doctor On Call also actively collaborates with 112 and BPBD (Regional Disaster Management Agency) for disaster cases. This programme is equipped with a 24-hour health team spread across 10 sub-district areas with 10 Puskesmas as call centres.

The Doctor on Call programme handled 820 cases in 2022, and 532 cases in 2023, resulting in a total of 1,352 cases between 2022 and June 2023. An increase in services occurred after using the integrated and call centre-based 119 number, with an increase in the number of cases handled. Currently, the Doctor on Call Programme has 3 ambulances, 3 motorbikes, and 3 personnel serving as health workers and support staff. The benefits of this programme are felt by the community, so that this programme has received appreciation from the Ministry of Health and the Samarinda City Parliament, and with the support of the Samarinda City PKK Team, this programme can continue.

The Doctor on Call program in Samarinda has gained significant appreciation from both the Ministry of Health and the Samarinda DPRD due to its tangible benefits to the community. With strong support from the Samarinda City PKK Team, this program continues to address key health concerns—particularly those linked to air pollution. Despite Samarinda having one of the cleanest air quality indices in Indonesia (AQI value of 34, compared to Balikpapan's 44), rapid urban development and increasing motor vehicle use still pose air quality challenges.

Air pollution in Samarinda is largely driven by the transportation sector and urban activity. Though the air remains relatively clean by national standards, localized pollution can still trigger health issues, especially acute upper respiratory infections (ISPA). These cases have become more frequent in areas with higher traffic density and limited green spaces.

To combat these issues, the city has implemented various environmental strategies, such as urban air quality evaluations, the Climate Village Program, enhancement of green open spaces, school-based environmental campaigns, and community socialization efforts across 10 sub-districts. Among these initiatives, the Doctor on Call program stands out as a critical health intervention. By providing accessible medical services, it helps detect and treat pollution-related illnesses early, preventing more serious health outcomes and easing the burden on healthcare facilities.

This proactive approach ensures that the population remains resilient against the health impacts of air pollution, while also promoting greater environmental awareness and community participation in sustainable urban development.

Source:

Samarinda Municipality. (2024). 2024 Voluntary Local Review of Samarinda City. Samarinda Municipality.

1.3.1.2 Climate Change Mitigation and Adaptation Measures

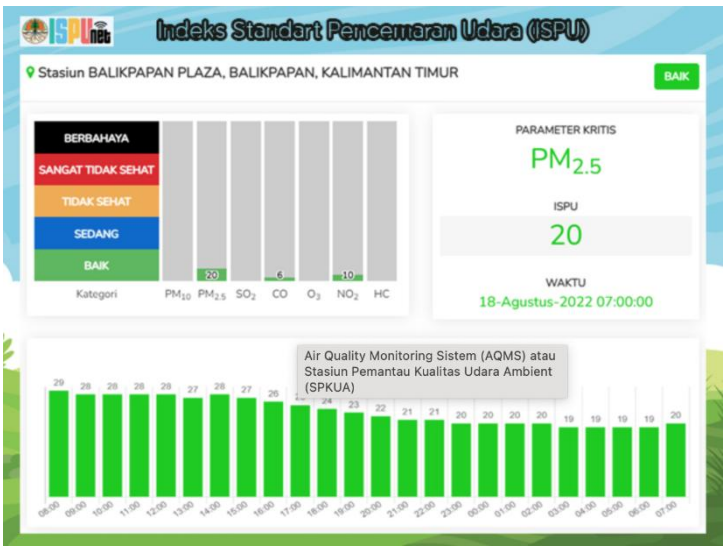
No. 30: Annual Mean Levels of Fine Particulate Matter (e.g. PM2.5 and PM10) in Cities (Population Weighted)

Balikpapan: Clean City, Glorious City!

Balikpapan is the second largest city in East Kalimantan after Samarinda. The city relies on industry, services, trade, and tourism sectors as the main drivers of economic growth. As a result, the population of Balikpapan City has increased rapidly, reaching 733,396 people by mid-2023. Balikpapan City has won the title as the cleanest city in Indonesia. The prestigious award from the Ministry of Environment and Forestry, namely Adipura Kencana for the Big City category, was successfully achieved in 2023. This achievement shows the city's commitment in maintaining cleanliness and a sustainable environment.

This success did not stop in 2023. Balikpapan City again retained the Adipura Kencana award in 2024, making it a city that has won the Adipura award 25 times. Of these, six of them are Adipura Kencana, while the rest are Adipura Paripurna. The Adipura Kencana award in 2024 makes it the only major city to receive the highest award in the field of cleanliness and environmental management. The Adipura Kencana award was given based on several key indicators, including: 1) cleanliness of market area, 2) waste management, and 3) existence and management of landfills. Balikpapan City has a Manggar landfill that has implemented the Sanitary Landfill system, a waste management method that is considered more effective and environmentally friendly. In addition, the innovation of methane gas utilisation from Manggar landfill has successfully provided energy for around 300 households in the city.

In addition to the Adipura Kencana award, Balikpapan City also won the ASEAN Clean Tourism Award 2024, which further strengthens the city's reputation as a clean city worth visiting. These achievements show that Balikpapan City is not only focused on environmental cleanliness, but also on developing sustainable and environmentally friendly tourism. The awards achieved by Balikpapan City provide significant benefits, not only in terms of the city's image and achievements but also have a direct impact on the quality of life and health of residents.



The Adipura Kencana award motivates Balikpapan City to maintain high standards in waste management, green spaces, and air quality. Recent data indicate that PM2.5 levels range from 7 to 11.3 µg/m³ and PM10 from 11 to

12.8 µg/m³—both below WHO thresholds, indicating good air quality. This achievement reflects the city's consistent efforts in air quality monitoring, managed by the Environmental Agency using both active (High Volume Air Sampler) and passive (Passive Sampler) methods.

Several factors contribute to air pollution in Balikpapan, including a rising number of motorized vehicles, industrial activities, waste burning, and household emissions. The city's role as a gateway to the new Indonesian capital has accelerated traffic and emissions. Major industries, particularly oil and gas, also contribute significantly to air quality degradation.

In addition, waste burning—whether from households, industries, or open areas—releases harmful pollutants into the air. Weather conditions such as wind and the city's geographical layout influence the dispersion of these pollutants. Rapid population growth further increases energy consumption and transportation use, intensifying air pollution.

Mining and quarrying around the city generate airborne dust and particles. To monitor pollution sources, Balikpapan uses a range of tools: HVAS for total suspended particulates (TSP), electronic sensors for PM2.5 and PM10, and impingers for gases like SO2, NO2, O3, NH3, and H2S. The city also employs an automatic air monitoring system with real-time data on weather conditions and pollutant levels.

The use of both HVAS and Passive Sampler methods gives Balikpapan an edge in air quality monitoring. HVAS provides precise sampling of large air volumes, while Passive Samplers offer cost-effective, continuous data. This dual-method approach enhances accuracy and coverage, enabling the city to adopt responsive, data-driven environmental policies and improve its ability to manage air pollution effectively.

Source:
https://www.rri.co.id/daerah/720383/balikpapan-dinobatkan-sebagai-kota-terbersih-di-indonesia#:~:text=KBRN%2C%20Balikpapan%20:%20Balikpapan%20baru%20saja,nominasi%20Adipura%20Kencana%20tahun%202023.

1.3.1.2. Climate change mitigation and adaptation measures

No. 50: Percentage of Sub-National/Local Governments Budgets Dedicated to Climate Change Mitigation and Adaptation Actions

Samarinda Climate Village Programme

The Samarinda Municipality has become one of the pilots of the Climate Resilient and Inclusive Cities (CRIC) Programme, in collaboration with United Cities and Local Governments Asia Pacific (UCLG ASPAC), in the preparation of a Climate Change Action Plan document, since 2020. This effort focuses on strategies to increase resilience to climate change risks and mitigation actions in the form of low-carbon development, which involves various stakeholders from local to national level. The municipality's commitment is strengthened through the formation of a working group as stipulated in the Mayor's Decree Number 660-05/223/HK-KS/IV/2022 on the Amendment to the Mayor's Decree Number 660-05/356/HK-KS/X/2020 on the Samarinda City Climate Change Action Working Group.

Climate change currently causes many natural disasters. For instance, landslides and floods happen during the rainy season. In the meantime, residential areas are affected by land and forest fires throughout the summer, and certain agricultural areas have drought and raw water shortages. Increased capacity to build a climate-resilient city is the program's main goal. One of the important activities in the CRIC project is capacity building and training to create a climate action plan (CAP) that encourages municipalities to mainstream *climate* issues into

city development plans. The CAP document can also serve as a basis for cities to access funding related to climate change action, both national and international donor agencies.

In line with the East Kalimantan Provincial Government's programme to realise 20,000 climate village programmes by 2024, the Samarinda Municipality is supported by PT PLN (Persero) in implementing the Climate Village Programme in Sindang Sari Village. Climate change mitigation efforts greatly benefit from community involvement in the smallest setting as a tangible measure to lower carbon emissions, particularly from the household sector. In implementing the Climate Village Programme, PT PLN (Persero) distributes Corporate Social Responsibility (CSR) assistance in the form of non-organic and organic waste processing facilities, flood prevention actions through biopori systems, reforestation, yard land use, and rainwater treatment to create responsible consumption.

Samarinda City has established four Climate Villages whose communities actively implement environmental management practices that support global warming prevention efforts. Two of these villages—Sambutan and Pula—serve as pilots for the national Climate Village Programme. Due to these initiatives, Samarinda has received the National-Level Regional Climate Village Programme Development Award from the Ministry of Environment and Forestry.

One standout initiative is the “Jeng Rinda” or Jelantah Membangun Samarinda program, run by the Samarinda City Environmental Agency. This program collects used cooking oil from households, restaurants, and hotels, with a target of at least 10% of used oil being donated. The oil is then processed for reuse and supports environmentally conscious schools. The program not only helps prevent environmental damage from improper oil disposal but also adds economic value by recycling waste. Its success received recognition from the Indonesian World Record Museum for collecting the largest volume of used cooking oil.

In 2019, the Samarinda Municipality allocated Rp 240 million for the establishment of Climate Villages, as a part of climate change adaptation and mitigation efforts at the local level. In addition, Samarinda also received assistance from the central government through the state budget for climate change control in East Kalimantan, with total funds reached Rp 0.59 trillion until June 2024. At the international level, Samarinda is the location of a pilot project funded by the Adaptation Fund with a budget of USD 824,835. The project aims to develop adaptive public spaces to climate change, particularly in the face of flood risk and other hydro-meteorological disasters. Through this combination of funding from various sources, Samarinda seeks to strengthen the city's resilience to the impacts of climate change, while improving community welfare and environmental sustainability.

Source:

1. PPID of Samarinda Municipality (2019). Priorities and Ceiling of the 2019 Revised Budget. https://ppid.samarindakota.go.id

2. Niaga Asia (2024). Central Government Disburses Rp0.59 Trillion for Climate Change Control in East Kalimantan. https://www.niaga.asia
3. Kemitraan - Partnership for Governance Reform (2023). Adaptation Fund Project Samarinda. https://www.kemitraan.or.id

1.3.1.3. Develop systems to reduce the impact of natural and man-made disasters

No. 52: Does the Country Have a Multi-Hazard Monitoring and Forecasting System

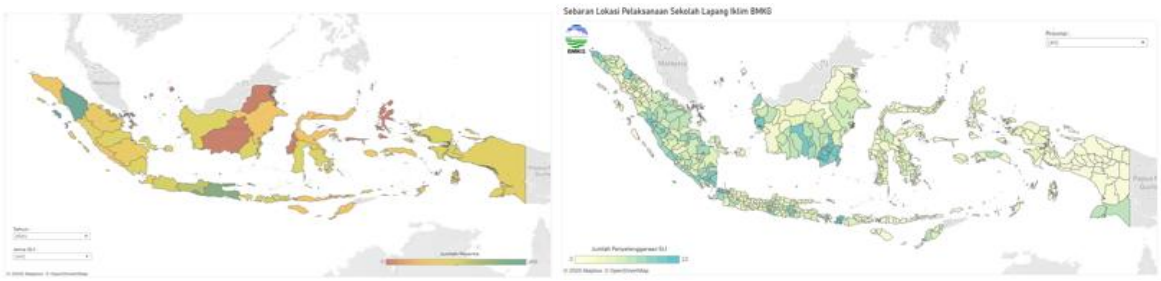
Aceh's Strategy for Post-Tsunami Multi-Hazard Monitoring and Forecasting

Aceh is highly vulnerable to natural disasters, especially earthquakes that can cause tidal waves. After Aceh tsunami in 2004 became a major disaster, the issue of mitigation was highlighted in Indonesia. Disaster mitigation as an effort to minimise disaster risk through physical development and strengthening the ability to face disaster threats continues to be developed.

Following the 2004 disaster, the Meteorology, Climatology, and Geophysics Agency made significant advances in earthquake and tsunami monitoring. Previously, Indonesia's disaster monitoring system was extremely limited. The Tsunami Early Warning System was then created to augment the catastrophe monitoring system. To detect earthquakes more quickly and accurately, the Indonesian Agency for Meteorology, Climatology, and Geophysics has constructed a countrywide network with 28 seismic sensors.

The system uses the latest technology, namely the Decision Support System (DSS), which collects data from various sources, including earthquake monitoring, tsunami simulation, tsunami wave monitoring and post-earthquake crustal deformation. Significant technological transformation is reflected in the Tsunami Early Warning System, which enables tsunami early warning within five minutes of an earthquake. However, community readiness and response, especially in areas with limited technology, remains a challenge.

Areas with technological limitations are generally remote or rural areas that have limited or no access to technology, especially the internet and digital devices. This digital divide can hinder various aspects of life, including education, economy, and access to information. The continuation of disaster mitigation and education measures is urgent to minimise the risk and impact of tsunamis in the future.



A tsunami drill as part of the ongoing efforts to strengthen disaster awareness and preparedness in the community was organised to commemorate the tsunami disaster 20 years ago. This activity took place in order to support the 20th Global Tsunami Symposium by UNESCO IOC. The organisation of the event involved various parties, including experts and disaster mitigation experts who participated in transferring knowledge.

This ongoing commitment is part of building community resilience and increasing public awareness of what to do in the event of a tsunami. In addition to enhancing community preparedness, related studies and research to reduce the impact of disasters, as well as

disaster risk modeling, are being improved for safer spatial planning. Disaster risk modeling is an analytical technique used to identify, quantify, and manage risks associated with natural or man-made disasters. This simulation seeks to understand potential losses and establish appropriate mitigation methods.

The Tsunami and Disaster Mitigation Research Center as a centre for disaster-related research in Aceh was established in 2006. This research institute has established many collaborations with various institutions, both locally, nationally, and internationally. The presence of Tsunami and Disaster Mitigation Research Center indicates a real effort in the implementation and development of disaster research in Aceh as a sustainable strategy in the formulation and implementation of research policies and disaster risk management, both at the regional, national and international levels. Furthermore, synergy between the government, the private sector and the community is needed in disaster mitigation efforts. Such synergy is key in building community and city resilience as well as responsive and coordinated responses in disaster management.

The existence of Tsunami and Disaster Mitigation Research Center aims to improve quality disaster research resources, provide advocacy to the government in making policies, collect and provide the best data by accelerating the process of collecting appropriate data related to the impact of disasters. In addition, Tsunami and Disaster Mitigation Research Center also contributes to improving disaster-resilient communities, collaborating with researchers and other research institutions in disaster research. With the existence of Tsunami and Disaster Mitigation Research Center, it is hoped that it can prevent natural disasters in Aceh located in the area that is highly risk to disasters, one of which is an earthquake that can cause high waves.

Source:
https://dishub.acehprov.go.id/2020/03/27/aceh-miliki-pusat-studi-tsunami-dan-mitigasi-bencana/
https://bandaacehkota.go.id/berita/40002/40002.html
https://www.rri.co.id/daerah/1302317/mitigasi-bencana-di-aceh-evaluasi-sejarah-dan-strategi-masa-depan
https://mediaindonesia.com/nusantara/728967/peringatan-dini-tsunami-aceh-perkembangan-sistem-mitigasi-dan-tantangan-masa-depan

https://iklim.bmkg.go.id/SLI/main/
https://iklim.bmkg.go.id/SLI/main/
https://iklim.bmkg.go.id/SLI/main/index.php/pelaksanaandetail/?idkegiatan=296

InaRISK: Smart Innovation in Organising Disaster Resilient Public Facilities

InaRISK is a mapping platform developed by the National Disaster Management Agency to map disaster risks in various regions in Indonesia. The InaRISK map is a best practice in spatial planning, particularly in selecting safe and strategic locations for health and education facilities. By analyzing vulnerability to disasters such as earthquakes, floods, landslides, and tsunamis, the government can use this map to guide the construction of hospitals, health centers, schools, and universities in safer areas.

InaRISK also supports disaster risk mitigation by informing the design of resilient infrastructure. For example, hospitals and schools in earthquake-prone zones are built with quake-resistant structures, while those in flood-prone areas incorporate drainage systems or stilt foundations. The map further aids in planning evacuation routes and ensuring access to essential facilities during emergencies.

In spatial planning, InaRISK helps locate health facilities in accessible, disaster-safe zones. The Disaster Safe Schools program also relies on these maps to establish secure evacuation

plans and infrastructure. Integration of InaRISK data into Regional and Detailed Spatial Plans ensures that public facilities are built with a focus on safety and long-term resilience.

By integrating InaRISK into spatial planning, the process becomes more structured, safe, and sustainable. It demonstrates how technology-driven, mitigation-based planning enhances regional resilience and offers stronger community protection. InaRISK supports both the central and local governments in aligning infrastructure development with disaster risk assessments through its inclusion in Regional and Detailed Spatial Plans.

The benefits of InaRISK extend beyond planning. For the government, it helps disseminate disaster risk information, supports decision-making in disaster management, monitors risk indices, and provides spatial data for policy and research. For the community, InaRISK offers valuable insight into local disaster risks, serving as an educational tool for mitigation efforts before, during, and after disasters.

Source:
https://bpbd.bulelengkab.go.id/informasi/detail/artikel/71_mari-kenali-ancaman-di-sekitar-kita-dengan-inarisk

1.3.1.2. Climate change mitigation and adaptation measures

No. 49: Percentage of Local Governments Adopting and Implementing Local Disaster Risk Reduction Strategy in Line with the National Strategy

From Ruins to Sustainability: Creating a Resilient and Inclusive Palu City

Natural catastrophes frequently cause extensive damage, including critical infrastructure such as bridges, highways, and public buildings. These industries are not only crucial for people's survival, but they also help to foster economic and social movements in the impacted regions. Various stakeholders work together to restore all destroyed aspects of life during the rehabilitation and reconstruction phase.

Reflecting on recovery efforts following the Palu liquefaction disaster that occurred in Indonesia in 2018 due to a powerful earthquake, focusing on rebuilding destroyed infrastructure, relocating affected communities from high-risk areas, implementing new

building codes with earthquake-resistant designs, and prioritizing community engagement to foster resilience to future natural disasters, while managing the severe damage caused by liquefaction that resulted in large swathes of land turning to liquid mud, engulfing buildings and causing widespread damage.

Rehabilitation and reconstruction is not merely about rebuilding damaged infrastructure, but also creating a better and more sustainable environment. Through collaboration with various parties, the programme ensures that every development not only prioritises functionality, but also takes into account sustainability and resilience to future disasters. Some of the main aspects considered in this project include earthquake-resistant housing that is designed to be more robust so that it can withstand potential earthquakes in the future. Soil remediation efforts after the Palu liquefaction disaster mainly focused on improving drainage systems to lower the water table, soil compaction techniques to improve soil stability, and the possible addition of stabilising materials such as cement or geotextiles in highly affected areas, particularly in the alluvial deposits of the Palu valley where liquefaction was most severe, especially in the Petobo and Balaroa neighbourhoods.

Public facilities, such as school buildings, hospitals and community centres were renovated with earthquake-resistant building standards and improved security systems. In addition, all infrastructure was built with accessibility for all, including people with disabilities and the elderly. The water distribution system was also improved to ensure every citizen has better access to clean water. Not only that, green open spaces were increased to create a healthier and more comfortable environment for the community.

Rehabilitation and reconstruction activities in Central Sulawesi Province, which have been carried out for five years, are not only about physical development, but also efforts to restore people's hopes. In the aftermath of a disaster, people need safe, comfortable and decent housing. Therefore, the construction of shelters not only aims to be a place to live, but also a space that is able to foster a sense of security and belonging for survivors, the government has at least built more than 5,000 earthquake-resistant houses, including earthquake-resistant schools and hospitals.

In addition to rebuilding infrastructure, the programme also focuses on community empowerment. In the new housing complexes, business spaces are provided, such as micro, small, and medium enterprises, traditional markets, as well as children's playgrounds. This aims to help residents who have lost their livelihoods due to disasters to get back on their feet economically. Thus, the concept of a resilient city is not only built in physical terms, but also through the active involvement of the community in reviving the city. In this case, with well-planned rehabilitation and reconstruction, disaster-affected cities not only recover, but also grow to be more resilient, greener, more inclusive, and better prepared for the future.

Source: https://sulteng-sitaba.com/

1.3.1.3. Develop systems to reduce the impact of natural and man-made disasters

No. 53: Number of cities with percentage of urban population covered by multi-hazard early warning systems

Padang Tangguh, Padang Siaga: Disaster Mitigation Strategies in a Coastal City

Padang City, which is prone to earthquake and tsunami, continues to show strong commitment in disaster mitigation efforts. The Regional Disaster Management Agency of Padang City successfully ranked third nationally in the assessment of the Index for the Implementation of Peace, Public Order and Community Protection for Disaster Sub-Minutes in 2024 with an assessment from the Directorate General of Territorial Administration which refers to Permendagri Number 67 of 2020 concerning the Ministry of Home Affairs Strategic Plan 2020-2024 and Kepmendagri Number 100.4.3-669 of 2022. This achievement shows that Padang City has fulfilled the six pillars of Disaster Sub-County affairs according to central government standards which include institutions, apparatus resources, policies, funding, technical operations, and leadership.

The Padang Municipality is implementing disaster mitigation strategies, especially for earthquakes and tsunamis, through various important steps, including comprehensive risk assessments, optimising policies and institutions, and building synergies in planning. The Padang Municipal Government has developed concrete actions including strengthening the early warning system with system trials every 26th, installing signs and information boards related to disasters, determining tsunami safe areas, marking blue lines, and evaluating the feasibility of buildings for disaster shelters. The Padang Municipality also reviewed the readiness of 22 sirens at various points in Padang City.

Padang Municipality launched a 112 emergency call center service for the public. The emergency service is named Padang Command Center (PCC) 112. This 112 emergency service is a real manifestation of the Padang Municipality to improve efficiency, coordination, and response in dealing with various emergency situations in the community. This 112 call center service will be integrated with seven agencies, namely the Fire Department, Regional Disaster Management Agency, Civil Servant Police Unit, Transportation Department, Health Department, Environmental Department, and Ministry of Public Works.

A "Padang Command Centre" is in place for emergency services. Socialisation to increase the resilience of the people of Padang City and minimise the negative impact of disaster risk is intensively pursued by the municipality. The Disaster Preparedness Group at the urban village level actively conducts counselling directly to the community. In addition, the Disaster Preparedness Group is an active community element in disaster management, starting from the pre-disaster stage to the emergency response stage.

Padang Command Center has the real output that is beneficial to the community, such as the Disaster Safe Education Unit Program. This program is an effort to make educational units, such as schools are safe from disasters. This program aims to prevent and mitigate the impact of disasters in educational environment, as well as ensure that educational services continue to run in emergency situations. Padang City was even named the best city in Indonesia in terms of implementing the Disaster Safe Education Unit Program.

The Padang Municipality has also developed a Disaster Resilient School Programme (Disaster Safe Education Unit and Disaster Resilient Village) aimed at disaster risk reduction. Padang City has shown serious efforts in disaster preparedness as shown by the recognition of Purus and Lolong Belanti Villages as Tsunami Prepared Villages by UNESCO-IOC. Padang City is also determined to continue partnering with Indonesia Agency for Metereology, Climatology, and Geophysics, Kogami, as well as the community in the "Tsunami Ready Community Program".

This requires the active involvement of all elements of society from the private sector, academia and communities to optimise the role of the "Tsunami Ready Community". In addition, Padang City commemorates Disaster Preparedness Day every 30 September since 2010 to raise awareness and preparedness for disasters. The Padang Municipality also organises monthly casual meetings with stakeholders and disaster practitioners to discuss issues related to disaster risk reduction.

Source:
https://padang.go.id/pcc-112-pusat-kendali-dan-layanan-kedaruratan-pemko-padang

1.3.2.3. Implement Environmentally Sound Management of Water Resources and Coastal Areas

No. 54 Existence of a Coastal and/or Land Management Plan Enacted in That Country

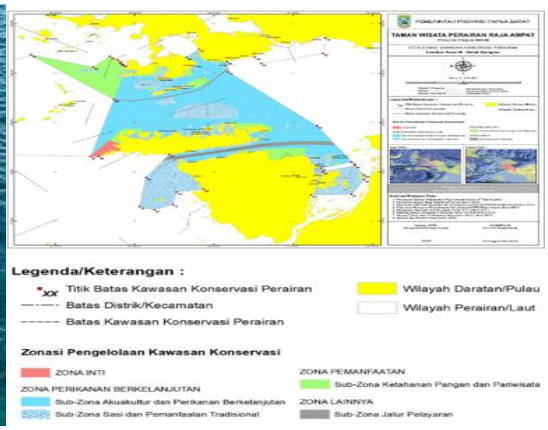
Coral Reef Conservation in Raja Ampat Regency and Turtle Conservation in Sorong Regency

Coral reef conservation in Raja Ampat is an example of successful marine resource management based on spatial planning, cross-sector collaboration, and local community support. The Raja Ampat region consists of 4.6 million hectares of ocean, 1,411 small islands, coral islands or atolls, and shoals, surrounding the four main islands of Waigeo, Batanta, Salawati, and Misool. Straddling the equator, Raja Ampat has some of the richest marine biodiversity on Earth. The area is known as the heart of the World *Coral Triangle* as it harbours more than 550 species of coral (about 75% of the world's species) and is 'home' to more than 1,600 species of fish, 6 out of 7 endangered sea turtle species, and 17 known species of marine mammals.

The abundance of biological resources is a source of life and a source of livelihood for more than 50,000 people spread across 117 villages. However, Raja Ampat was not always what it is today. Years ago, Raja Ampat's underwater paradise was devastated by irresponsible commercial fishing activities and illegal and destructive practices, such as the use of fish bombs and shark finning. In the 1990s, some fisheries reports recorded catch declines of up to 90% across the Bird's Head Seascape, including Raja Ampat.

Recognising Raja Ampat's ecological importance in both national and global contexts, conservation history began intensively in 2004, when the Raja Ampat Regency Government together with NGOs, such as Conservation International (CI), Worldwide Fund For Nature

(WWF), and The Nature Conservancy (TNC) began initiating community-based management by establishing a network of Marine Protected Areas (MPAs) under the jurisdiction of the national and provincial governments, which now cover a total of 2,000,109 hectares. All MPAs consist of several zones, each of which regulates permitted and prohibited activities. The enactment of District Regulation Number 27/2008 on marine protected areas strengthened the legal basis for their management. One important collaborative programme is the "Papua Seascape Programme", which combines science, local wisdom and an ecosystem approach. Spatial planning is done through the establishment of a 1.3 million hectare Regional Marine Protected Area (MPA), which is divided into various zones: core zone (no activity), sustainable fisheries zone, and tourism zone, thus maintaining a balance between conservation and utilisation. Coral damage constitutes a crime in the Raja Ampat region and will result in action against the offender, which depending on the severity of the damage can result in fines of up to 200 million Indonesian Rupiah per unit of damage, and or imprisonment of up to 10 years.



The Raja Ampat Islands Regional Technical Implementation Unit, together with other government agencies and the private sector, is in the process of installing the Raja Ampat Mooring System *(*RAMS) across all MPAs in Raja Ampat. This network of moorings is needed to support efforts to protect vulnerable marine habitats and environments by reducing the need to drop anchor, while improving safety and comfort for vessels visiting MPAs in Raja Ampat.

Collaboration involves various parties including national and local governments, national and international NGOs, donor agencies, and indigenous communities, such as the Maya who are given an important role through the recognition of customary territorial rights in marine management. Approximately more than 300 local communities have been trained as marine patrol officers (community-based surveillance) and ecotourism guides aimed at strengthening surveillance and economic benefits. In terms of achievements, based on CI Indonesia and WWF data, live coral cover increased from 36% in 2006 to more than 45% in 2020 in some core zones.

Reef fish biomass also increased by an average of 250% over 10 years in areas with high protection. Economically, ecotourism development makes a significant contribution, with tourism revenue going into a Conservation Fund that is reused for area management. In 2019, Raja Ampat received the Blue Park Award from the Marine Conservation Institute for successful marine conservation to international standards. Conservation in Raja Ampat also contributes to climate change mitigation.

Protected coral reefs and seagrass beds act as natural carbon sinks and protect coastlines from abrasion due to rising sea levels. Studies show that these areas have the potential to sequester up to 15 million tonnes of CO_2 equivalent per year, making them a strategic asset in Indonesia's climate change agenda. Since the development of the MPA, the Regional Public

Service Agency Regional Technical Implementation Unit for the Management of Conservation Areas in Raja Ampat Islands Waters has been patrolling and monitoring activities in the area.

As the gateway to Raja Ampat, Sorong also deserves a thumbs up for its turtle conservation efforts. An important part of efforts to conserve endangered marine species, with a spatial approach, cross-sector collaboration, and involvement of indigenous communities. Coastal areas such as Sayosa Beach, Sausapor Beach and Matan Island have been designated as turtle conservation zones in district and provincial spatial plans, with groupings of sanctuary areas and buffer zones that restrict human activities, such as development and sand mining. The history of sea turtle conservation in the region dates back to Dutch colonial times, but has only received systematic attention since the early 2000s, when populations of green (Chelonia mydas) and leatherback (Dermochelys coriacea) turtles were threatened by egg poaching and habitat degradation.

Through collaboration between the West Papua Natural Resources Conservation Centre, Moi and Maybrat indigenous communities, local NGOs, such as the Papua Turtle Foundation, and international partners such as World Wide Fund for Nature. Conservation efforts are conducted through security patrols, egg rescue and hatching, and community education. Measurable achievements of the programme include an increase in the number of active nests per year, from only around 150 nests in 2010 to more than 500 nests in 2022 at Sausapor Beach, as well as the success rate of egg hatching which increased from 40% to more than 80%. In addition, local communities are now involved as volunteer turtle conservationists and benefit economically through a conservation-based ecotourism programme, where tourists can witness the hatchling release process.

In 2021, the turtle conservation area in Sorong City received a "Green Leadership" award from the Ministry of Environment and Forestry for its innovation in involving indigenous communities in the conservation of endangered species. In the context of climate change, coastal protection and sea turtles also serve multiple functions to maintain the balance of marine ecosystems and defend coastal structures from erosion. Sea turtles are also considered indicators of ocean health, so maintaining their populations means strengthening the ecosystem's resilience to changes in temperature and seawater acidity.

In contrast to turtle conservation in other parts of Indonesia, such as Derawan Island (East Kalimantan) or Sukamade (East Java), which rely more on mass tourism approaches and are managed by national parks, turtle conservation in Sorong City emphasises a cultural-ecological approach based on customary rights and local knowledge. Here, indigenous communities have a role as the main custodians, not just technical implementers, and conservation is seen as part of ancestral values, not merely an economic activity. This approach makes turtle conservation in Sorong City a unique and inclusive example of an indigenous community-based conservation model that is adaptive to climate and social challenges in the Land of Papua.

Source: https://kkprajaampat.com/

Community-based Marine Conservation in Makassar City

Yayasan Konservasi Laut (YKL) Indonesia is a Makassar-based organisation focused on marine ecosystem conservation and coastal community empowerment. With a mission to protect marine biodiversity and improve the welfare of fishermen. YKL Indonesia and fishermen collaborate to implement innovative, environmentally friendly solutions, such as the use of octopus fishing gear called pocong-pocong and bole-bole.

Pocong-pocong is made from ironwood carved to resemble the figure of an octopus. It invites the octopus to approach, mistaking it for the opposite sex, and is then captured safely and without harming the habitat. The bole-bole, on the other hand, is made from a dead gastropod shell filled with lead, with lures that resemble the octopus' natural food, such as small crabs.

Innovations in environmental friendly fishing gear from plastic waste can be in the form of shrimp traps made from used plastic bottles or octopus fishing gear that utilizes waste oil bottles. In addition, there is also the innovation of marine debris traps modified from sero fishing gear, which functions to trap fish as well as marine debris. This innovation not only reduces plastic waste but also provides creative solutions for fishermen in supporting a livelihood.

Fishermen are now utilising plastic waste from neighbouring islands to create fishing gear from materials that were once considered useless. Through the innovation of eco-friendly fishing gear such as pocong-pocong and bole-bole, YKL Indonesia is instilling local wisdom in harmony with technology, creating solutions that not only protect the ecosystem, but also inspire Indonesia as a whole. One of YKL's flagship programmes is the conservation of octopus in Langkai and Lanjukang Islands, Makassar, through an open and closed fishing system involving local communities.

The implementation of an open and closed system for octopus fishing, which is carried out with a system of 3 months closed for fishing and the next 3 months can only be utilised, has been agreed upon by the Lanjukang Island and Langkai Island Open and Close System Management Forum from the two islands. Prior to implementing the open and close system for octopus fisheries, a mock study was conducted in Wakatobi, especially in indigenous communities that have implemented the open and close system. The programme has been successful in increasing octopus populations and coral reef health, as well as reducing pressure on marine ecosystems.

YKL Indonesia encourages the implementation of well-regulated fishing times and areas. This ensures that marine ecosystems have time to recover and thrive and creates a harmonious cycle of life between humans and nature. This "open and close location" policy not only safeguards marine sustainability, but is also the foundation for the economic sustainability of coastal communities. In this regard, through collaboration with local communities, YKL Indonesia has played an important role in maintaining the sustainability of marine resources and reducing the impact of plastic waste.

Source:
https://habitatidn.id/storage/upload/dokumen/file/Katalog%20Pameran%20Memetri.pdf

1.3.2.1. Strengthen sustainable natural resource management in urban areas

No. 21: Material footprint, material footprint per capita, and material footprint per GDP

Green Footprints in the Centre of Concrete: Kediri City's Transformation towards Sustainability

Strengthening sustainable natural resource management in cities involves a range of measures to ensure responsible and environmentally sound utilisation of natural resources, and support the quality of life of urban communities. These measures include conservation, efficient use, resource diversification, environmental restoration, and the use of green technologies. Community engagement, education and collaboration among stakeholders are also critical to successful sustainable natural resource management in cities.

Material footprint represents the amount of raw materials extracted and used to fulfil a country's final consumption demand. It can be an indicator of living standards or economic capitalisation. Indonesia's material footprint in 2017 was 6.2 tonnes per capita. The material footprint also includes the food footprint, which refers to the area required to grow crops, fish and graze animals, as well as absorbing carbon emissions from food processing and transport.

Several cities in Indonesia have demonstrated a strong commitment to sustainable natural resource management in urban areas. For example, Kediri City is recognised as the leading sustainable city in Indonesia, as revealed by the UI GreenCityMetric 2022 and 2024 Ranking, with the highest score among 64 participating cities and regencies. Kediri City has launched various initiatives to reduce environmental impacts and enhance citizens' quality of life. These include greening programs, improved waste management, and the promotion of eco-friendly transportation. A notable achievement is Kediri’s top national score in the access and mobility category, driven by consistent spatial planning, sustainable infrastructure, and community empowerment programs.

To support sustainability, Kediri has adopted a Green City Vision that focuses on energy, land use, and transport. The city has expanded green areas such as Joyoboyo Park, Kediri Memorial Park, and Sekartaji Park, while also improving wastewater management systems.

Efforts to manage natural resources involve both government and community action. Initiatives include enhancing green open spaces, preserving endemic fish species, and promoting eco-tourism. The Department of Environment, Hygiene, and Parks maintains key green areas and encourages their use as educational spaces on environmental sustainability.

Expanding green open spaces is a priority for the city. In 2022, green areas covered 16.99% of Kediri’s land (around 1,034 hectares), with a target to increase this by 0.5% by 2025. Programs to achieve this include building parks in every sub-district and promoting urban

farming to support food security. The city is actively constructing and upgrading parks like Alun-Alun, Sekartaji, and Ngronggo, aiming for at least one green space per sub-district. Urban farming is also emphasized to address land limitations while improving public food access.

The Harmoni Service City Program, led by the Cleanliness and Parks Service, enhances green spaces through planning, infrastructure, and community engagement. These efforts aim to improve air quality, provide recreational areas, and strengthen environmental sustainability citywide.

Source:
https://satudata.kedirikota.go.id/sdgs https://greenmetric.ui.ac.id/city/ranking/ranking-keseluruhan-2024

1.3.2.1. Strengthen sustainable natural resource management in urban areas

No. 22: Domestic material consumption, domestic material consumption per capita, and domestic material consumption per GDP

Hejo Sae Village in Bandung City

Hejo Sae Village is a community empowerment initiative located in RW 09 Pasanggrahan Village, Ujungberung Sub-district, Bandung City. The programme was developed by the Wallagri community with support from Rumah Zakat, the Institute for Research and Community Service (LPPM) of the Islamic University of Bandung and the Indonesian Architects Association (IAI) West Java. The aim is to create a collaborative space or co-working space that serves as a centre for creative, productive, and sustainable activities for local residents. The programme has been recognised as the Best Civil Society Organisation in Indonesia's Sustainable Development Goals (SDGs) Action Awards 2023 by Bappenas. This award was given for the real contribution of Hejo Sae Village in achieving the SDGs, especially in the aspects of food security, clean water management, renewable energy, and responsible consumption.

Hejo Sae Village is located in the Sunda Polis Area, in the northern part of the Gedebage Teknopolis International City plan, Bandung. This area serves as a greenbelt, a disaster mitigation zone, and a critical water catchment area for East Bandung and Teknopolis. Beyond its ecological importance, Sunda Polis also protects pockets of Sundanese culture and remaining agricultural land, making it ideal for developing a self-sustaining neighborhood rooted in local nature and tradition.

The program emphasizes Sundanese cultural values like *ririungan*, *rereongan*, and *reureujeungan*, which reflect the community spirit of *gotong royong* (mutual cooperation). Activities include urban farming on small plots, waste management through waste banks and processing centers, and the marketing of local products at the Wallagri Creative Centre and Wallagri Mart, both of which earned the SDS Action Award 2023.

In Sundanese tradition, the *buruan* or yard is a productive space for medicinal plants, home kitchens, and family activities. Building on this, the "Buruan Sae" (Healthy, Beautiful, and Economic Courtyard) program was launched in 2019 to promote sustainable living. As of

November 2021, it has been implemented in 151 urban villages and 234 community groups across Bandung City.

Hejo Sae Village aims to build creative, resilient, and self-reliant communities that practice sustainable food consumption and promote well-being. Key initiatives include developing Taman Wallagri 09 as a green city education center, enhancing Buruan Sae productivity, and establishing the Wallagri Centre as a co-working hub. Additional facilities such as a cultural arts center and elderly-friendly services support inclusive and sustainable development. This model of Integrated Neighborhood Governance is designed for replication in other areas to advance local Sustainable Development Goals.

Buruan SAE Sajuta Saratus is a notable example located in RW 4, Kelurahan Cipaganti, Coblong District, near Gang Masjid, Jalan Cihampelas. With a growing 100 m² plot, this group maximizes limited land in alleys and near rivers for urban farming. Despite spatial constraints, local residents remain highly committed to building food security in their area. Consisting of 26 members, the group uses roadside and riverside land for crops and fish farming. A location survey conducted on March 10, 2022, confirmed its suitability for educational use due to its central location in a residential area. The group had already begun cultivating vegetables and fish. Buruan SAE Sajuta Saratus received phased assistance starting March 28, 2022, including seeds, planting media, catfish, and laying hens. Land management has been gradually organized by commodity. Moving forward, the site is expected to serve as an agricultural education center for both RW 4 and greater Bandung.

Source:
https://sdgs.bappenas.go.id/repository/public/d2a2fb24-ad9c-41e4-9274-1dcc3df016ea ; https://sdgs.bappenas.go.id/repository/public/9990; https://khazanah.republika.co.id/berita/s3uq1u349/kampung-hejo-sae-binaan-rumah-zakat-raih-penghargaan-terbaik-indonesias-sdgs-awards ; Fauziah, Y. (2023). *Community empowerment through the Hejo Sae Village programme in environmental conservation* (Doctoral dissertation, UIN Sunan Gunung Djati Bandung).

1.3.2.1. Strengthen sustainable natural resource management in urban areas

No. 27: Green Area Per Capita

Sustainable Revitalisation: Tebet Eco Park, a Modern Oasis in the Centre of Jakarta

Tebet Eco Park in South Jakarta is a successful example of public space revitalisation that incorporates ecological approaches and sustainable design. Within 15 months, the 7.3-hectare park was transformed from an area suffering from environmental degradation, flooding issues and accessibility limitations into an inclusive and environmentally friendly green space. The project emphasised tree conservation and blue-green infrastructure improvements, including the renaturalisation of a previously polluted 714-metre waterway into a riverine

ecosystem that supports biodiversity and reduces flood risk through riparian vegetation and meandering waterways.

In the construction process, more than 1,500 existing trees were assessed for health, with a design approach that minimised intervention to preserve natural resources. Materials from the old canal and fallen tree trunks were reused as park design elements, such as furniture and play areas. An infinity-shaped pedestrian bridge was designed to connect two sections of the park separated by a roadway to improve connectivity without damaging existing trees. Since its opening in 2022, Tebet Eco Park has become a popular destination for Jakarta residents by offering diverse recreational facilities and cozy open spaces.

Tabet Eco Park which was previously a passive land with the name Taman Honda Tebet after being revitalised by the government became an active land to support community activities. This is in accordance with the vision of the Practical Guide for Implementing the New Urban Agenda by the Ministry of Public Works and Housing (2017) with the theme in the designer and planner of Tebet Eco Park, namely "connecting people with nature". This concept prioritises facilities for people with disabilities and Regional Regulation No. 1/2014 on Detailed Spatial Planning and Zoning Regulations for supporting facilities.

The Tebet Eco Park facility is the result of collaboration with the private sector, namely PT Keppel Land Invastama with the Daerah Khusus Ibukota (DKI) Jakarta government. Tebet Eco Park has 8 zones consisting of 4 zones in the northern area, Community Garden, Community Lawn, Tebet Eco Park Plaza, Thematic Garden, and in the south consisting of Infinity Link Bridge, Wetland Boardwalk, Forest Buffer, and Children Playground. Tebet Eco Park is not only a green open space for recreation and education, but also a centre for creative economy as well as micro, small, and medium enterprises empowerment.

The project also received international recognition, including the "Design of the Year" award from the President's Design Award Singapore 2023 and the "Global Best Ecological Landscape Design" at the 13th International Idea-Tops Awards. Tebet Eco Park was judged as a "futuristic urban green space based on the harmony between nature and people". The judgement was also based on the project demonstrating inclusive design, being accessible to all, and collaborating well with the local community, as well as having high aesthetic and functional standards. Tebet Eco Park is an urban park that is a green open space, initiated by the Provincial Government of DKI Jakarta.

Source:
https://www.cnnindonesia.com/gaya-hidup/20241104175215-269-1162939/tebet-eco-park-raih-seoul-design-award-2024
https://archello.com/project/tebet-eco-park; https://www.archdaily.com/1005641/tebet-eco-park-siura-studio; https://archirro.com/land-use-planning/transforming-tebet-eco-park-a-sustainable-urban-regeneration/

1.3.2.2. Promote Resource Conservation and Waste Reduction, Reuse, and Recycling

No. 23: Recycling Rate, Tonnes of Material Recycled

Waste Management Area Towards Independent Circular Economy (Awas Si Koma) and Cimahi City Eco-School (Seralikoci)

Cimahi Municipality through its Environmental Agency has developed Awas Si Koma and Seralikoci. Awas Si Koma has won the best innovation award in the municipality category at the West Java Innovation Competition 2024. The Awas Si Koma innovation is a flagship innovation of the Cimahi Municipality in an effort to overcome waste problems that are always constrained in terms of financing.

This pilot project was carried out by residents of RW 18 Cipageran Village, North Cimahi District who are members of the 0418 Independent Economic Movement group. Currently, residents have been able to manage household waste independently through black soldier fly (BSF) maggot cultivation. The maggot can decompose 21 tonnes of organic waste per month. In addition, the maggot is also used as catfish feed. Every month, residents can produce 100kg of catfish, some of which are distributed for free and some are processed into products to be sold as an effort to improve the residents' economy. Some inorganic waste is processed into handicrafts and also processed into refused derived fuel at the Sentiong Integrated Waste Processing Site. This programme is expected to change people's behaviour in managing waste.

The Awas Si Koma (Waste Management Area Towards Independent Circular Economy) innovation programme has become Cimahi Municipality's flagship breakthrough in overcoming waste problems. This programme successfully led Cimahi to win the Best Innovation Award in the Municipality Category in the West Java Innovation Competition 2024. The programme aims to handle waste sustainably through a circular economy approach that involves communities, businesses, industries, and local governments. In this case, the concept of circular economy carried by Awas Si Koma relies on the reuse of unused goods or products as economic capital.

This program not only reduces the burden of regional financing in waste management, but also encourages changes in community behaviour to actively build a new civilization in environmental management. It is hoped that the success in RW 18 can serve as an example for other areas in Cimahi City. Thus, this programme can be implemented more widely to create a collective solution to the city's waste problem.

The 2024 the West Java Innovation Competition Award provides motivation and recognition for waste management efforts carried out by the City of Cimahi. The development of Awas Si Koma needs to expand the scope of the program to all areas of Cimahi City and involve more people. This can be done by continuing to increase public awareness of the importance of waste management and active participation in the program.

Development activities can also be carried out by continuing to develop new innovations in waste management, including the use of technology and product diversification from waste. In addition, it is also carried out by increasing the capacity of the community and related officers in sustainable waste management. This can be done by improving the overall waste management system, including collection, sorting, processing, and utilization of waste. With support from various parties and a focus on sustainability, the Awas Si Koma Program is expected to be an example for other regions in overcoming waste problems and realizing an independent circular economy.

Source: https://tirto.id/siasat-cimahi-menjadi-kota-tanpa-tpa-g7EJ ;

https://www.rri.co.id/daerah/1156581/inovasi-awas-sikoma-cimahi-program-unggulan-mengatasi-sampah

1.3.2.4. Adopt a Smart City Approach that Leverages Digitalisation, Clean Energy and Technology

No. 55: Percentage Reduction in Annual Final Energy Consumption at Home Using Smart Monitoring System

Passive Design of Low Energy Flat Prototype in Tegal City

The buildings sectors is one of the sectors that emit the largest greenhouse gas emissions in Indonesia after the industrial and transport sectors. In this sector, the Ministry of Public Works continues to innovate to reduce energy consumption while reducing greenhouse gas emissions through a passive design approach without reducing the thermal comfort of occupants. One of the results of this innovation is manifested in the form of an energy-efficient

prototype flat that has now been built in Tegal City, due to Public Works' collaboration with Hiroshima University supported by various parties from both Indonesia and Japan.

Inaugurated in 2020, the 500m^{2}flat consists of 12 residential units (standard type and loft type) intended for the upper middle class. The flat is designed to be climate-responsive by implementing passive colling ensuring it has good thermal performance without using excess energy for air cooling. In order to maximise the use of natural energy, the prototype flats are designed by taking into account the hot-humid characteristics of the local climate. The orientation of the building is designed by considering the relative movement of the sun and the movement of the wind throughout the year in the location. The wide balcony functions as a thermal buffer as well as a shading device so that hot air from outside and *direct solar radiation* do not enter the room.

The building is also equipped with voids and wind fins on the ground floor to direct the wind while increasing the effectiveness and efficiency of stack effect ventilation. The application of the Radiant Cooling principle uses Phase Change Material (PCM) applied to the floor of the building. This material can store heat during the day and dissipate heat at night so as to keep the dwelling unit cool.

The thermal performance of the flat shows that the indoor air temperature is 5ºC lower than the outdoor air temperature during peak hours in the daytime. At the same time, the indoor air humidity is lower by 20%. This proves that the prototype building has a cooling effect in accordance with the passive design applied, which will save energy and low maintenance costs.

In 2025, a second prototype flat of 273.5 m² will be built, consisting of 4 residential units for the lower middle class. Utilising a hybrid concept (combination of concrete and wood), the design has been proven through simulation to improve thermal performance while reducing embodied energy and carbon emissions. The flat applies an innovative ventilation strategy that ensures even air distribution according to comfort standards. This prototype is expected to be a reference and standard for the design of apartment buildings and simple flats owned (Rusunami) in the future.

Source:
1. https://www.suara.com/bisnis/2021/10/11/070000/desain-pasif-pada-purwarupa-rusun-rendah-energi-di-kota-tegal
2. Ciptakarya Bulletin Issue 06 Year XXI November-December 2023
3. Building Science Engineering Centre, Ministry of Public Works

Pagar Alam City with Renewable Energy

Pagar Alam City is recognized as one of the few cities in Indonesia that utilizes 100% renewable energy, primarily sourced from abundant local hydropower. The city relies on a minihydro power plant as its main electricity provider and also benefits from the nearby Green Lahat minihydro plant. Designated as a green energy city, Pagar Alam aims to become the first fully green-powered city in the country. This renewable energy use not only capitalizes on its rich natural resources but also contributes to reducing greenhouse gas emissions and dependence on fossil fuels.

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As an area with rich natural resources and surrounded by the Bukit Barisan Mountains, Pagar Alam has the great renewable energy potential. The city has utilised various types of green energy generation such as minihydro power plant, and geothermal power plants. One prominent minihydro power plant is the Green Lahat minihydro power plant, which has been supplying most of the city's household electricity needs. Other energy sources, such as Lumut Balai Geothermal Power Plant and Rantau Dedap Geothermal Power Plant, also contribute significantly in supplying electricity with a total capacity of more than 150 megawatts.

Data shows that almost all households in Pagar Alam are electrified. In 2020, 99.95% of households had access to electric lighting, up from 98.45% in 2009. The number of electricity customers also continues to grow, from 36,691 customers in 2018 to more than 39,000 customers in 2020. This growth demonstrates the readiness of infrastructure to support a sustainable energy transition.

Furthermore, green energy development efforts are officially regulated in Regional Regulation Number 7/2012 on the Regional Spatial Plan of Pagar Alam City 2012-2032. This regulation provides a legal foundation for renewable energy development and sets out a long-term strategy that targets the fulfilment of energy needs up to 26 megawatts through diversification of energy sources, including solar and water.

With an area of 633.66 square kilometres and a population of 143,844, Pagar Alam is the largest city in South Sumatra Province and is geographically strategic for green energy development. Its location bordering other regencies makes it an important centre for energy connectivity and renewable energy based on electricity distribution in the surrounding area.

This transformation is not just about changing energy sources but also building a sustainable ecosystem that includes the transport sector, industry, and people's lifestyles. If renewable energy utilisation is extended to the transport and industrial sectors, Pagar Alam has the potential to become the first city in Indonesia to achieve zero emission. This would be a huge leap forward in the national agenda towards carbon neutrality.

Pagar Alam's success in developing green energy can serve as a replication model for other cities in Indonesia. With strong collaboration between central and local governments as well as the right policy support, the transformation to a renewable energy-based city is no longer just a dream, but a reality being realised at the foot of Dempo Mountain.

Source:
https://www.cnnindonesia.com/ekonomi/20220124173053-532-750591/jokowi-pagar-alam-akan-jadi-kota-pertama-yang-gunakan-energi-hijau

1.3.2.4. Adopt a Smart City Approach that Leverages Digitalisation, Clean Energy and Technology

No. 56: Sharing Road Intersections with Traffic Lights Connected to a Traffic Management System

Makassar Smart City Technology for Integrated **Traffic Management System Efficiency**

Makassar City has taken significant steps to implement the Smart City idea in an effort to strengthen its traffic management system. Makassar City's smart city technology has won numerous awards, including Most Innovative City in the Innovative Government Award (IGA) 2024, which was organized by the Ministry of Home Affairs (Kemendagri). The grant was intended to assist the Makassar Municipality in increasing the utility of numerous innovations spanning from public services, governance, and technology utilization. Furthermore, the Directorate of Traffic (Ditlantas) of South Sulawesi Police received the Presisi Award from the Police Strategic Studies Institute (LEMKAPI) for the creation of the National Electronic Traffic Law Enforcement (ETLE) programme, which was established in collaboration with the Makassar municipality.

The ETLE programme as an integral part of a broader traffic management system for a technology-based traffic law enforcement system allows traffic violations to be detected automatically. The initiative is supported by surveillance cameras installed at various strategic points. In its implementation, Ditlantas Polda Sulses received full support from the South Sulawesi Regional Government and the Makassar Municipality. The programme in Makassar City operates cameras and sensors at strategic points to detect various violations, namely not wearing driving safety equipment, running red lights, and using mobile phones while driving. A confirmation letter and fine will be received by the vehicle owner if an offence is detected. The implementation of the ETLE program as one of the best at the national level is a strategic step to minimise the potential for accidents and traffic violations and foster the discipline of road users.

Following focus on law enforcement, Makassar Municipality also improves the traffic flow control aspect through the implementation of Advanced Traffic Control System (ATCS). The next innovation through the Makassar City Transportation Agency (Dishub) was launched in line with the vision of the Mayor of Makassar, Moh. Ramdhan Pomanto, namely Makassar as a Sombere City and Smart City, and supports one of its missions, namely to overcome the problem of congestion in Makassar City. Makassar Transportation Agency collaborates with South Sulawesi Police Traffic Unit, Makassar Police Traffic Unit, and Port Police Traffic Unit in traffic management efforts. One of the initiatives presented is the War Room as a command centre or control room that monitors and manages traffic efficiently and effectively by implementing the Advanced Traffic Control System (ATCS) as a traffic control system that supports the traffic management system. In the implementation of War Room, operators and managers work together to monitor and manage traffic in real time. The initiative also serves as a platform for multi-stakeholder collaboration such as the Traffic Police, security providers, and other emergency service providers.

Source:
https://makassarkota.go.id/2024/07/dishub-makassar-adopsi-konsep-smart-city-untuk-atasi-kemacetan-lalu-lintas/

2.1.1. Eradicate poverty in all its forms address inequalities in urban areas by promoting opportunities and sharing benefits equally

No 57: Is local authority oversight exercised in accordance with such procedures and in such cases as are provided for by the constitution or law?

Eradicating Poverty and Social Inequality in Surakarta City

Eradicating poverty and reducing inequality in urban areas requires a comprehensive approach, involving investments in education, health, and economic opportunities, as well as ensuring equitable access to urban resources and infrastructure. Collaboration between the

government, non-governmental institutions, the private sector, academia, and civil society is crucial in the implementation of poverty alleviation and inequality reduction programmes. The active participation of the community in decision-making and implementation of programmes is crucial to ensure the success and sustainability of such efforts. An example of this is Surakarta City, which is learning about urban poverty reduction with a focus on social and economic aspects.

Efforts to alleviate extreme poverty in Indonesia are closely tied to sustainable economic transformation, food price stability, and the creation of broad employment opportunities, especially for the most vulnerable populations. In Surakarta (Bengawan City), progress has been evident. Based on Surakarta Dalam Angka 2023, the poverty rate declined by 2,850 individuals in 2022. In 2021, approximately 48.79 thousand residents—or 9.40% of the population—were living in poverty. This marks a tangible shift toward poverty alleviation.

A significant contributor to this progress is Solo's strong economic performance. In 2022, economic growth in the city rose to 6.25%, a notable increase from 4.01% in 2021. This more than 2% jump in growth has supported job creation, boosted income levels, and improved local economic resilience, all of which have played key roles in reducing poverty.

On a national scale, poverty reduction—especially in urban areas—is guided by Indonesia's National Strategy for Poverty Reduction and the 2020–2024 Medium-Term National Development Plan (RPJMN), which includes the KOTAKU (Kota Tanpa Kumuh or City Without Slums) Programme. This program is overseen by the Ministry of Public Works and Public Housing (PUPR) through the Directorate General of Human Settlements. KOTAKU is part of the broader national goal of eliminating slums in urban areas and improving the living standards of low-income communities.

In Surakarta, the local government has implemented this national initiative with strong commitment and coordination. The Semanggi area, one of the largest slum pockets in the city at 35.450 hectares, has been a key target. Across the city, 135.971 hectares of slum areas remain, spread across eight designated zones. The goal is to reduce or eliminate these areas by 2024, aligning with national targets.

The progress of the KOTAKU programme in Solo is monitored through regular assessments conducted jointly by the central and local governments. The Ministry of PUPR provides technical assistance, planning guidelines, and capacity-building support to local implementers. In addition, a centralized data platform enables the tracking of project implementation and outcomes.

At the local level, Surakarta Municipality integrates funding from the state budget (APBN), regional budget (APBD), and private sector contributions through Corporate Social Responsibility (CSR) partnerships. This blended financing approach helps ensure sufficient resources for housing improvements, sanitation facilities, access roads, drainage systems, and community empowerment projects. The program also actively involves community groups (BKM) in the planning and implementation process, reinforcing a participatory model of urban development.

A concrete example is the use of CSR funds in the Semanggi project, which supplements government financing to speed up progress. These collaborative efforts are not only transforming physical infrastructure but also enhancing access to basic services, improving public health, and reducing environmental risks in high-density areas.

If the 2024 targets are met, Surakarta's experience—especially in the Semanggi area—is expected to serve as a national model for integrated slum alleviation and extreme poverty reduction. It demonstrates how coordinated efforts between national policies and local execution, supported by multi-source funding and community participation, can create lasting, inclusive urban transformation.

Source:
https://solopos.espos.id/menakar-tantangan-kemiskinan-ekstrem-di-solo-1739108
https://www.kemenkopmk.go.id/sites/default/files/artikel/2021-11/Solo%20Jadi%20Contoh%20Penanganan%20Kawasan%20Kumuh%20Kemiskinan%20Ekstrem.pdf

2.1.1. Eradicate poverty in all its forms Address inequalities in urban areas by promoting opportunities and sharing benefits equally

No 58: Percentage of total budget that local/regional governments choose to prioritise (financial autonomy)

Fiscal Favour, Citizens Rise: Surabaya and the Urban Poverty Alleviation Model

Surabaya City, known for its strong fiscal capacity, strategically allocates its 2025 budget to combat poverty and reduce urban inequality. A key aspect of this strategy is financial autonomy, reflected in Indicator 58 of the New Urban Agenda, which measures the percentage of the local budget prioritized based on community needs. In Surabaya, about 12% of the regional budget is determined through participatory processes like Musrenbang, Citizen Association Forums, and e-Musrenbang, empowering residents to influence development priorities in their areas.

Beyond social assistance, Surabaya's poverty alleviation efforts emphasize building community capacity and economic independence. Programmes like "Economic Heroes" and "Young Fighters" support female heads of households and youth with entrepreneurship training, mentorship, and market access. The city has also established family learning centres in vulnerable neighborhoods, offering parenting education, counselling, and protection advocacy for women and children to strengthen social resilience.

Surabaya City also applies an ecological and economic approach through urban farming and waste bank programmes in dense residential areas. Residents are empowered to manage limited land into household food sources and increase family income through waste sorting and sales. Meanwhile, village revitalisation is carried out thoroughly through the Thematic Village Program. The municipality collaborates with the community and the private sector in improving basic infrastructure, beautifying the environment, and creating productive and livable spaces in informal areas.

The results of these initiatives have been significant. The poverty rate in Surabaya City decreased to around 4.7% in 2023, which is one of the lowest among major cities in Indonesia. In addition, income inequality has been reduced, reflected in the relatively stable and low Gini Ratio. Access to basic services, such as education, health, clean water, and sanitation also continues to improve in previously marginalised areas. These achievements are attributable to responsive local leadership, inclusive planning, and well-targeted fiscal capacity to support equitable social and economic development.

Surabaya's practice shows that with participatory planning and wise fiscal management, Indonesian cities can sustainably eradicate poverty and visibly reduce inequality. Surabaya is a clear example that fiscal strengthening and autonomy followed by a commitment to equitable distribution of development benefits is key in creating an inclusive and socially just city.

Source:

1. Surabaya Municipality. (2023). *Local Government Performance Report (LKPD) of Surabaya City in 2022*. Surabaya: BPKAD Surabaya City.
2. Ministry of Finance RI. (2024). *Regional Fiscal Capability Data for Fiscal Year 2025*. Jakarta: Directorate General of Fiscal Balance.
3. Ministry of Home Affairs. (2023). *Surabaya City Regional Finance Profile*. Jakarta: Directorate General of Regional Finance.
4. United Nations Human Settlements Programme (UN-Habitat). (2017). *New Urban Agenda*. Quito, Ecuador.

2.1.2. Linking urban policies to financial mechanisms and budgets

No 59: Percentage of local / regional government financial resources generated from endogenous (internal) revenue sources

From Tourism to Development: Badung's Strategy to Support the Regional Budget through Local Revenue

Badung Regency in Bali is a leading example of how local governments can effectively link urban policy with internally sourced financial mechanisms. Over 90% of its regional budget is funded by local own-source revenue, demonstrating strong fiscal independence with minimal reliance on central government transfers. This success is largely driven by the tourism sector, with significant income from hotel, restaurant, entertainment, and billboard taxes in popular areas like Kuta, Seminyak, and Nusa Dua.

To enhance transparency and efficiency, Badung implemented the "Badung Smart Tax" system, enabling real-time monitoring of tourism business transactions, reducing tax leakage, and increasing compliance. The regency also offers fiscal incentives and streamlined licensing to attract investment, further expanding its revenue base. These funds are strategically invested in key sectors such as education, health, infrastructure, and public services, delivering clear benefits to the community.

Not only that, in dealing with dependence on the tourism sector which was shaken by the pandemic, the Badung Regency Government began to diversify the economy through the development of tourist villages, empowerment of MSMEs, and technology-based agriculture. In addition, the regional development planning mechanism also involves active community participation through the Musrenbang forum and e-Planning system. Budget transparency is also maintained by delivering financial information and local revenue realisation regularly through official local government media. This strategy demonstrates the close linkages between policy, fiscal capacity and inclusive development based on sustainable local potential.

With these practices, Badung Regency has successfully demonstrated that regions with strong fiscal capacity can effectively finance development through internal revenues, while strengthening local autonomy and self-reliance. This approach is highly relevant to the objective of indicator Number 59 of the New Urban Agenda, which is to link urban policies with local own-source financial mechanisms.

Source:

1. Regional Revenue Agency of Badung Regency. (2024). Annual Performance Plan (RKT) Year 2024. https://bapenda.badungkab.go.id
2. Badung Regency Government. (2024). Reaching Rp 12.1 Trillion, Changes to the Badung 2024 APBD are Stipulated as Regional Regulations. https://badungkab.go.id
3. Next Indonesia. (2025). Regions with Highest Fiscal Independence Index. https://nextindonesia.id
4. Statistics Indonesia of Badung Regency. (2024). Regional Revenue of Badung Regency. https://badungkab.bps.go.id
5. Badung Regency Government. (2024). National Coordination Meeting on Regional Finance 2024, Badung Regency wins APBD Award 2024. https://badungkab.go.id
6. Badung Regency Government. (2024). National Coordination Meeting on Regional Finance 2024, Badung Regency wins APBD Award 2024. https://badungkab.go.id

2.1.3. Legal and policy framework to improve government's ability to implement urban policies

No. 60: Quality of Law

From Regulation to Action: The Quality of Zoning Laws that Changed the Face of Surabaya

Surabaya City is recognised for its robust legal and policy frameworks that support effective urban policy implementation. A key example is the enforcement of zoning through Regional Regulation No. 12/2014 on the 2014–2034 Spatial Plan, reinforced by Mayor Regulation No. 41/2020 on Detailed Spatial Plans and Zoning. These regulations provide clear guidelines on land use, spatial intensity, and development rules, applying to businesses, investors, and residents alike. A notable strength of Surabaya's approach is its inclusive planning process, which incorporates public consultations and community input.

To enhance transparency and efficiency, Surabaya has integrated geospatial systems and digital licensing through the "Surabaya Single Window (SSW)" platform. This system streamlines permits for construction, environmental compliance, and business activities in

alignment with zoning regulations. The city's legal framework not only regulates development but also promotes sustainable growth, ensures legal certainty for investors, and reduces spatial conflicts.

Additionally, Surabaya continues to strengthen related legal instruments, including those for Green Open Space, pollution control, and slum improvement. Enforcement is ensured through regular field inspections, permit suspensions for violations, and incentives for compliance, demonstrating a balanced approach between regulation and facilitation.

The impact of this regulation is quite significant. Firstly, Surabaya City is able to maintain a balance between economic growth and environmental preservation, as evidenced by the increasing proportion of green spaces and orderly spatial utilisation zones. Second, legal certainty over zoning accelerates the investment process as businesses more easily understand the restrictions and opportunities that apply in each area of the city. Third, the integration of digital systems through SSW accelerates public services and reduces the potential for corrupt practices in licensing. Fourth, planned spatial planning also has a positive impact on significantly reducing slum areas, from more than 1,000 hectares in 2010 to less than 50 hectares by 2022 (Bappeda Surabaya, 2023). In addition, the utilisation of detailed spatial plan as a reference for transport and infrastructure arrangements has improved the city's connectivity and reduced congestion in the main corridors.

With a solid legal foundation, participatory governance, and a digitalised licensing system, Surabaya City has successfully improved the capacity of the municipality to manage urban development and growth in a more structured, equitable, and sustainable manner. This practice is a concrete example of how the quality of legal and policy frameworks can be an important pillar in implementing the New Urban Agenda.

Source:

1. Surabaya Municipality. (2020). *Surabaya Mayor Regulation No. 41 of 2020 concerning RDTR and Zoning Regulations*.
2. Surabaya Municipality. (2014). *Surabaya City Regional Regulation No. 12 of 2014 concerning RTRW 2014-2034*.
3. Surabaya City Regional Development Planning Agency (Bappeda). (2023). *Performance Report of Spatial Planning and Settlement Area 2010-2022*.
4. Surabaya Municipality. (2023). *Surabaya Single Window (SSW)*. https://ssw.surabaya.go.id
5. Undip e-Journal. (2005). *Legal Quality in Urban Spatial* Planning. https://ejournal.undip.ac.id/index.php/dialogue/article/viewFile/509/389

2.1.4. Strengthening the Capacity of Local and Sub-National Governments to Implement Local and Metropolitan Multi-level Governance

No 61: Standards for Publicised Performance Delivery at Sub-National Level

Banyuwangi: An Exemplar of Performance-Based Governance

Banyuwangi Regency exemplifies best practices in strengthening local government capacity through transparent, accountable, and measurable performance governance. The district consistently earns an “A” rating in the Government Agency Performance Accountability System (SAKIP) from The Ministry of Administrative and Bureaucratic Reform, highlighting its success in integrating planning, budgeting, and performance evaluation. These achievements are documented in publicly accessible Government Agency Performance Accountability Reports, which serve both as internal controls and tools for public transparency and accountability.

To support multilevel governance, Banyuwangi has implemented several key strategies. These include performance agreements between regional leaders and agency heads, aligned with the Regional Medium-Term Development Plan and each agency’s strategic plan. The regency also uses a real-time digital dashboard for performance monitoring, enabling timely evaluations and data-driven decision-making. Additionally, by publishing accountability reports on its official website, the government ensures that the public, media, and oversight institutions can directly track and evaluate its performance.

The real impact of strengthening this performance system is reflected in the increased effectiveness of regional programmes, the efficiency of public spending, and the strengthening of public trust in government. Banyuwangi has also become a national reference in performance-based public service innovations, such as the Smart Kampung Programme, Public Service Mall, and integration of social and health services at the village level. Banyuwangi's practices show that strengthening local government capacity in the context of multi-level governance depends not only on regulations, but also on political will and consistency in building open, measurable and collaborative performance systems.

Source:

1. Ministry of PANRB. (2023). *Report on SAKIP Evaluation Results in 2022*.
2. Government of Banyuwangi Regency. (2023). *Government Agency Performance Report (LAKIP) 2022.* https://banyuwangikab.go.id

2.1.5. Promote participatory, age and gender responsive approaches to urban policy and planning

No. 16 Proportion of cities with structures for direct participation of civil society engagement in regular and democratic urban planning and management

Implementation of the National Spatial Forum as a Spatial Planning Best Practice

The National Spatial Forum is a collaborative platform that brings together government agencies, academics, the private sector, and communities to develop inclusive and sustainable spatial planning policies. It serves as a best practice model in promoting participatory spatial management by facilitating coordination across sectors and levels of government. This forum ensures that spatial policies align with development needs while prioritizing environmental sustainability. The National Spatial Forum has driven strategic spatial policies, such as metropolitan area planning, coastal zone management, and the protection of agricultural land. It also helps coordinate regional spatial plans to prevent policy overlap and promote infrastructure integration, contributing to a more connected, efficient, and sustainable national spatial structure.

In Yogyakarta City, the implementation of the National Spatial Forum is supported by the Jogja Smart Service—a digital platform that integrates various public services for easy access via mobile devices. The forum acts as a hub for innovation by incorporating academic research, GIS technology, and big data into spatial planning, enabling more accurate and informed decision-making. Yogyakarta has long been recognized as a leader in smart city innovation, earning first place in the 2015 Smart City Award, alongside Surabaya and Magelang. Its smart city initiatives focus on efficiently meeting residents' needs while maintaining sustainability. Dissemination activities involving students and the public aim to increase awareness and participation in city spatial planning.

Yogyakarta City exemplifies integrated spatial planning by involving cross-sectoral and multi-stakeholder collaboration. In 2024, the Yogyakarta City Land and Spatial Planning Office held a dissemination event titled *Digitalisation of Spatial Information of Yogyakarta City*, attended by planning officials and students from several universities. The event promoted the *Informative City Model: Smarter Yogyakarta*, emphasizing smart city principles of connectivity, inclusiveness, and digital governance.

The city also conducts annual evaluations of its spatial planning through forums led by the Land and Spatial Planning Office. These forums review past performance, set new work plans, and promote reforms in spatial governance and land administration. These efforts support the 2026 Planning Basis, aligned with national and provincial priorities for better urban governance.

Source: https://dinpertaru.jogjakota.go.id/

2.1.6. Promote the full participation of women in all areas and at all levels of decision-making

No. 24: Proportion of positions (by gender, age, persons with disabilities and population groups) in public institutions (national and local legislatures, public services and judiciary) compared to national distribution

Gender Mainstreaming in Urban Infrastructure Development

Central Jakarta City is an important example in encouraging women's full participation in decision-making in various sectors. The local government actively implements the Gender Mainstreaming Programme which integrates women's perspectives and needs in all development policies and programmes, especially in the field of urban infrastructure. One of the concrete steps taken is to increase women's representation in government and legislative institutions, with the proportion of women in the DKI Jakarta DPRD reaching around 30%, higher than the national average of 20-25%.

In addition, Central Jakarta is strengthening women's access to education and leadership training to improve women's capacity and skills in contributing to decision-making. Data from the DKI Jakarta Education Agency shows that more than 50% of leadership training participants are women, significantly increasing the number of women leaders in the public and private sectors. The government also ensures the provision of fair and equal employment opportunities, including equal pay and career path opportunities, with Statistics Indonesia of Daerah Khusus Ibukota (DKI) Jakarta data showing equal pay between men and women in the government sector with a ratio of almost 1:1. Advocacy and socialisation approaches are routinely conducted, with more than 100 gender equality advocacy programmes and public awareness trainings in the past five years, supported by collaboration between the government, women's organisations and NGOs.

In infrastructure development, the Gender Mainstreaming Programme in Jakarta emphasises that project planning and implementation take into account different gender needs, so that the infrastructure built not only meets physical needs, but also empowers women. The local government allocates a minimum of 2.5% of the DKI Jakarta state budget, or around Rp 1.2 trillion per year, for the Gender Mainstreaming Programme by ensuring women are involved in the planning process up to decision-making.

The tangible impact of these efforts is seen in the increased involvement of women in strategic positions in government and the public sector, which encourages more inclusive and responsive policies. The DKI Jakarta Provincial Government's internal study shows that 70% of recent policies have incorporated gender aspects as a result of gender mainstreaming. Increasingly realised gender equality has also contributed to improving women's social and economic welfare, with female labour force participation in Jakarta reaching 49%, higher than the national average of 38%. Jakarta is also recognised as a model city for successfully integrating a gender perspective in urban development, inspiring other regions to implement gender mainstreaming more systematically and effectively.

Source:

1. Ministry of Women's Empowerment and Child Protection of the Republic of Indonesia. Gender Mainstreaming in Urban Infrastructure Development. kemenpppa.go.id
2. DKI Jakarta Statistics Indonesia. Gender and Women's Empowerment Statistics 2023.

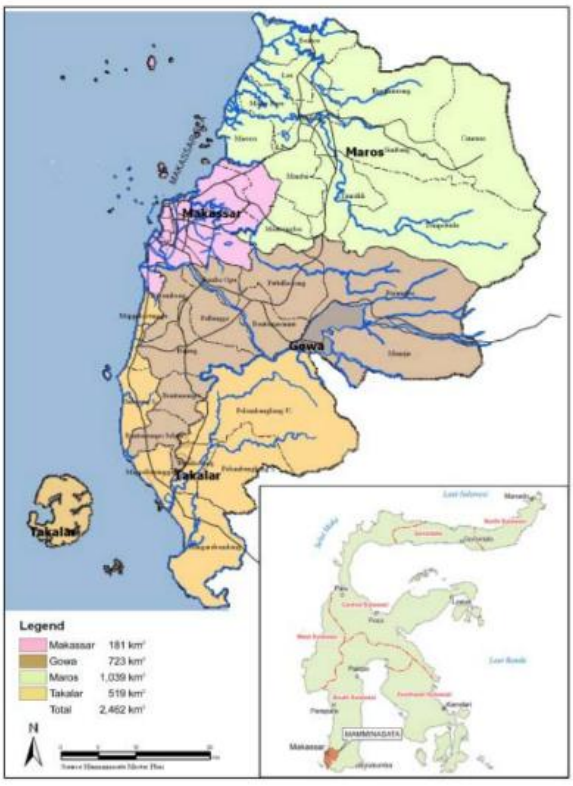
3. Provincial Government of DKI Jakarta. Gender Mainstreaming Implementation Report 2023.
4. International Labour Organization Jakarta Office. Gender Mainstreaming Strategy.
5. Provincial Government of DKI Jakarta. Jakarta Declaration on Gender Equality.

2.2.1 Integrated and balanced regional development policy

No. 20: Does the country have a National Urban Policy or Local Development Plan that (a) responds to population dynamics, (b) ensures balanced territorial development, and (c) increases local fiscal space

Mamminasata: A Model of Sustainable Metropolitan City in Eastern Indonesia

The "Mamminasata" area, which is an acronym for Makassar, Maros, Sungguminasa, and Takalar, has a number of strategic advantages that make it an important metropolitan urban area in South Sulawesi Province. The main advantage of Mamminasata lies in its strategic location as the gateway to eastern Indonesia, supported by Soekarno-Hatta International Port, Sultan Hasanuddin International Airport, and integrated land and sea transport access. The region also has high economic potential, both from the industrial, tourism, agricultural and service sectors.



Peta Wilayah Studi: Wilayah Metropolitan Mamminasata

Mamminasata development is very relevant in the context of equitable urban development, because it extends the benefits of Makassar's development as a core city to buffer areas, such as Maros, Gowa, and Takalar. With the development of regional infrastructure, such as toll roads, the Mamminasata Urban Transport mass transport system, and the light rail transit (LRT) plan, mobility and connectivity between regions have increased, resulting in more equitable distribution of economic and public services.

In addition, Mamminasata's spatial planning also encourages more targeted urbanisation control and prevents the concentration of development in just one city. The government has also encouraged inter-regional collaboration in water management, waste management, and housing, as part of a more integrated metropolitan approach. With this strategy, Mamminasata is expected to become a model of equitable development of urban areas in Eastern Indonesia, as well as reducing disparities between regions through economic synergies, infrastructure, and public services.

The Mamminasata Metropolitan Area in Eastern Indonesia exemplifies effective and sustainable spatial planning. A key strength lies in its integrated approach, from planning to implementation, supported by local government budget allocations that ensure spatial plans

are realized efficiently. Geographically and functionally, the region holds a strategic position as a center of economic growth and development in Eastern Indonesia.

Capacity building is a major component of the program, enhanced through support from the Japan International Cooperation Agency (JICA), which provides training and field practice to strengthen local government capabilities in spatial management. Environmental sustainability is also prioritized, with studies on carrying capacity to ensure balanced development, particularly in protecting heritage sites like Fort Somba Opu and Fort Rotterdam.

Institutional synergy is another advantage, with collaboration between the Directorate General of Spatial Control for spatial plan preparation and the Directorate General of Human Settlements for environmental and building planning. Physical development is coordinated between central and local governments, ensuring an effective and efficient working system. Inter-district coordination within Mamminasata ensures that each area contributes complementarily, avoiding spatial overlaps. The spatial plan aligns with the Regional Regulation on the South Sulawesi Spatial Plan, approved by the Ministry of Home Affairs. Together, strategic planning, professional management, and strong interagency cooperation make Mamminasata a model for sustainable, balanced urban development in Indonesia.

Source: https://pu.go.id/berita/mewujudkan-mamminasata-sebagai-pusat-pertumbuhan-indonesia

2.2.1 Integrated and balanced regional development policy

No. 62: Number of countries, local governments and municipalities where plans and designs are publicly accessible to residents *(online)* and can be consulted at any time

Regional Spatial Plan in Surabaya City that Can Be Freely Accessed by the Public

The Surabaya Municipality plays a key role in ensuring that regional spatial planning aligns with development policies through integrated and balanced strategies. These policies encompass spatial planning, infrastructure development, and local economic empowerment. Surabaya emphasizes transparency and public participation in the planning process by providing structured avenues for citizen involvement.

Citizens can access the regional spatial planning system via the city's official portal, which includes digital zoning maps and technical details such as land use, building base coefficient, and floor coefficient. This access allows residents and developers to make informed decisions regarding land use and permit applications. The city also routinely conducts public consultations during the preparation or revision of spatial and development plans, involving

communities, academics, businesses, and stakeholders through forums, workshops, and both online and in-person input sessions.

Services related to spatial planning and licensing in the City of Surabaya are managed by the Public Housing and Settlement Areas and Land Agency (DPRKPP) through the official portal dprkpp.surabaya.go.id. This portal provides various digital services that make it easier for the public to access information and take care of permits online. One of the main services is the Allocation Map, which allows residents to check the zoning status of land based on the Surabaya City Detailed Spatial Plan (RDTR).

Through this feature, users can find out the land allocation, such as residential, commercial, industrial, or green open space areas, as well as other technical information relevant to the development plan. In addition, DPRKPP provides licensing services, such as the Certificate of Functional Eligibility (SLF), Building Approval (PBG), and City Plan Statement (SKRK). This service is integrated with the Surabaya Single Window and Online Single Submission (OSS) systems, which facilitate the process of submitting and monitoring permits in a transparent and efficient manner. With this digital service, the Surabaya City Government demonstrates its commitment to increasing transparency, efficiency, and public participation in spatial planning and city development.

Source:
https://binamarga.surabaya.go.id/ ; https://dprkpp.surabaya.go.id/pelayanan

2.2.2. Integrating housing into urban development plans

No. 13: Proportion of Urban Population Living in Slums, Informal Settlements or Inadequate Housing

Kedaung Transformation: Good Practices in Slum Area Management by Tangerang City

Slums often present complex challenges in urban areas. However, the Tangerang Municipality has proven that slum upgrading can be done thoroughly and effectively through inter-agency synergy, community involvement, and sustainable development strategies. Some of the areas that have been successfully managed are Kedaung, Cipondoh, and Tanjung Anom, areas that were previously designated as slum areas based on Slum Decree Number 663/Kep.688-Bappeda/2016. The upgrading of these areas was carried out by the Tangerang City Housing, Settlement, and Land Agency in collaboration with the Ministry of Public Works.

In Kedaung Baru, Neglasari Subdistrict, the arrangement began in 2021 through a multi-year programme involving the Tangerang Municipality and the Ministry of Public Works. The initial step was the demolition of uninhabitable houses and the relocation of residents to a Rental Flat built on an area of 3,856.98 m² with 73 residential units. In addition, the former slum area was converted into a Public Open Space equipped with public facilities, such as educational facilities, sports, worship, and green spaces, to improve the quality of life of the surrounding community.

The initial step of the arrangement involved the demolition of 40 uninhabitable houses inhabited by 28 families. The affected residents were relocated to a Rental Flat built on an area of 3,856.98 m², consisting of 5 floors with a total of 73 residential units. This flat is equipped with adequate public facilities, such as education, sports, worship, and green open space, to support the social and economic life of residents. In addition to the construction of the flat, the arrangement of the area also includes improving environmental infrastructure,

including the construction of concrete roads and paving blocks, drainage channels, infiltration wells, and the arrangement of the entrance gate with a local cultural theme.

The former slum land was converted into a child-friendly Public Open Space, providing green space and public facilities for the surrounding community. The project was funded through a combination of local and central government budgets, including a loan from the Islamic Development Bank (IsDB), at a total cost of IDR 11.17 billion. The upgrading of the Kedaung Baru slum area is expected to serve as a model for other cities in Indonesia in their efforts to create decent, healthy and sustainable settlements.

Meanwhile, in Cipondoh, the arrangement focused on the Sipon Market area and the banks of the Sipon River. The Tangerang Municipality is removing illegal traders' stalls and improving road infrastructure and drainage to ease congestion and improve environmental cleanliness. This step also includes installing public street lighting and paving roads to support residents' mobility.

The slum upgrading area has been expanded to include Tanjung Anom, Mauk Subdistrict, Tangerang Regency, slum upgrading is carried out through collaboration between the Tangerang Regency Government and non-governmental organisations, such as Habitat for Humanity Indonesia. The program aims to revitalise fishermen's settlements by building livable houses, improving sanitation, and providing access to clean water. A participatory approach involves the community in planning and implementation, ensuring the sustainability and success of the programme.

Overall, slum upgrading in Tangerang City demonstrates the government's commitment to improving settlement quality and community welfare through an integrated and collaborative approach. Slum transformation is carried out through a multi-dimensional approach. In terms of infrastructure, the Tangerang Municipality improved environmental facilities and infrastructure, built roads with paving, and added public street lighting. To ensure access to clean water, rehabilitation of the Drinking Water Supply System, development of Regional Water Utility Company piping networks, and installation of drinking water treatment plants were carried out. In terms of water management and sanitation, channel normalisation and separation of drainage from sewage were carried out to improve the effectiveness of water flow, while communal toilet facilities and standard national septic tanks were built to support healthy sanitation. Latrine construction programmes and integrated wastewater treatment systems were also intensified at various points.

Improving the quality of housing is an important priority in slum eradication. In 2024, the Tangerang Municipality targets to repair 449 uninhabitable houses through a house renovation programme. In addition, the construction of simple rental flats is also carried out as a solution for decent and affordable vertical housing. This effort aims not only to provide decent housing,

but also to support public health and overcome other social problems, such as stunting, poverty, and infectious diseases.

Slum area upgrading in Tangerang does not only target the physical aspects, but also transforms the face of the area into a community-friendly public open space (RTP). Previously slum areas are now transformed into areas with complete public facilities, including sports facilities, education, worship, and social interaction spaces. In this process, collaboration with the private sector and active community involvement were key to success. The government also included environmental health education, environmental awareness, and economic empowerment programmes to help the community maintain the development.

All of these efforts are integrated in the City Withoit Slums Programme, a national programme from the Ministry of Public Works that accelerates slum reduction in Indonesia. In Tangerang City, this programme plays a major role in coordinating interventions in areas such as Kedaung. In addition to focusing on small-scale areas, the Tangerang Municipality is also committed to resolving slum areas with an area of more than 15 hectares that are under the authority of the central government, demonstrating their consistency in building an inclusive and sustainable city. The transformation of Kedaung is a clear example of how slum upgrading can be used as an inspiring good practice. Tangerang City confirms that neighbourhood transformation is not only about physically removing slums, but also about uplifting the dignity of residents, improving their quality of life, and creating resilient and healthy communities.

Source:
https://tangerangkota.go.id/berita/detail/36237/sediakan-rumah-susun-pemkot-tangerang-realisasikan-penataan-kampung-kumuh-kedaung-baru#:~:text=Camat%20Neglasari%2C%20Andhika%20Nugraha%20menambahkan,biaya%20terjangkau%20di%20Kota%20Tangerang.

2.2.3. Inclusion of culture as a priority component of urban planning

No. 17: Total expenditure (public and private) per capita spent on the preservation, protection and conservation of all cultural and natural heritage, by type of heritage, level of government, type of expenditure and type of private funding

Ambon: The City of Music

For the 394,415 residents of Ambon City, the capital of the Maluku region in eastern Indonesia, music is not only a source of entertainment, but also a way of life. It accompanies them in their daily activities and is often a focal point in celebrations and during holidays. Almost 90% of Ambon residents, due to their participation in choirs and training from an early age, can sing at a professional level, which forms an inseparable link between music and the city. Alongside tourism, music is a major source of employment and economic growth for the city contributing more than US$ 700,000 to the economy each year.

With a deep-rooted music culture, the city fosters and supports a diverse music scene that ranges from rappers and guitarists, to choirs and wind *bands*. With such talented artists, the city's activities promote its music on a national and international scale through events such as the Indonesian Music Conference, National Music Symposium, and Amboina International Music Convention. These festivals do not only aim to celebrate music, but also provide opportunities for musicians and music communities to discuss music regulation, collaborate, and share traditions both locally and around the world.

Ambon City as World Music City is committed to putting culture at the centre of its development strategy. Coinciding with World Cities Day on 31 October 2019, the United Nations

Educational, Scientific and Cultural Organization (UNESCO) designated the beautiful city of Ambon, Maluku as a "Creative City" in the music category. Ambon sits alongside 65 other World Music Cities designated by UNESCO and is a member of the Creative Cities Organisation Network of 246 cities around the world.

The selection of Ambon City as a "Creative City" with the music category is not without reason, as the capital city of Maluku has built various supporting infrastructure both in the provision of human resources (HR) and the construction of art performance buildings, such as the Dancing Fountain in Pattimura Park which is an icon of Ambon City as a World Music City.

A World Music City also requires to be supported by supporting infrastructure in the form of providing human resources (HR), performing arts buildings, recording studios, and music schools. In addition, as a laboratory of innovative ideas and practices, UNESCO Creative Cities, including World Music Cities, are expected to bring real contributions to achieving sustainable development goals through innovative thinking and actions that directly benefit society.

The government has also enacted Regional Regulation Number 2/2019 on Music-Based Creative Cities, which is the first regulation in Indonesia to regulate the rights and obligations of music industry players at the local level.

The government has also supported the registration of intellectual property for music industry players, as well as held acceleration programmes to build a sustainable creative ecosystem. These measures reflect Ambon City's commitment to harnessing the potential of music as a key driver of the city's social and economic development. Although no specific details on the amount of budget allocated to the music sector are available in the APBD document, it is known that the total APBD of Ambon City in 2023 reached 1.196 trillion. Of the total budget, a portion is allocated to support various initiatives in the music sector, including infrastructure development, training programmes, and cultural promotion. One concrete example of this budget allocation is the construction of the "Ambon City of Music" monument in the Hative Besar area, Teluk Ambon sub-district, using 500 million of the 2012 APBD funds. This monument symbolises the government's commitment to supporting the development of the music sector in the city.

Source:
https://katakreatif.kemenparekraf.go.id/assetsapi/country/pdf/1656045621184-kotakreatif-26.%20Profil-Kota-Ambon.pdf; https://www.unesco.org/en/creative-cities/ambon; https://www.tempo.co/teroka/ini-alasan-unesco-jadikan-ambon-kota-musik-dunia-448343

2.2.4. Planned urban expansion and infill, urban renewal and regeneration of urban areas

No. 63: Amount and per cent of new population accommodated in city plans or expansions

Integration of Spatial Governance in Central Jakarta as the City's Unique Icon

Planning urban expansion aims to accommodate population increases. In recent decades, most population growth has been accommodated through urban expansion. Urban population growth can also be accommodated by increasing the density of the existing urban footprint. In Central Jakarta, the population was 1.07 million in 2024-down from 2023, but still higher than in December 2021. In the last five years, the region experienced annual population growth of 2.94%, higher than the previous period.

Compared to other districts in DKI Jakarta Province, Central Jakarta ranks among the top five in population size, and stands at 67th nationally when categorized by island. The city's population is largely of productive age (66.79% or 716,380 people), with children accounting for 21.22% (227,640 people) and the elderly making up 11.99% (128,620 people). This demographic structure reflects a strong workforce base, with a dependency ratio (children and elderly combined) of 49.73%, indicating that every 100 working-age individuals support roughly 50 dependents.

As the smallest of Jakarta's five administrative cities, Central Jakarta faces intense urbanisation pressure, which it addresses through a compact and vertical development strategy. The city promotes the construction of flats and apartments to manage population growth while limiting the spread of informal settlements. It also implements transit-oriented development (TOD) near mass transit hubs—such as MRT, LRT, and commuter trains—to ease traffic congestion and improve mobility and access to affordable transportation for residents.

Urbanistically, Central Jakarta features a contrast between modern and historic environments. The Sudirman-Thamrin corridor is a dynamic business hub marked by high-rise buildings, while areas like Menteng, Gambir, and Cikini preserve colonial-era architecture, radial street layouts, and green public spaces. This blend of heritage conservation, modern development, and urban density management allows Central Jakarta to balance economic growth, social cohesion, and environmental sustainability amidst the pressures of rapid urban change.

Source:
https://databoks.katadata.co.id/demografi/statistik
https://bpmbkm.uma.ac.id/2020/01/26/populasi-dan-pertumbuhan-di-kota-jakarta/

2.2.5. Capacity building for urban planning and design, and training for urban planners at all levels of government

No. 64: Number of Urban Planners per 100,000 People

Increasing the Capacity of Government System in Jambi City

Improved urban planning and design capacity, including training for urban planners at all levels of government, is key to sustainable and inclusive urban development. This involves an understanding of spatial planning, land use, transport and other aspects that affect the quality of life of urban communities. Good urban planning and design helps to integrate the interests of different parties, avoid land use conflicts, and improve environmental quality.

Training and competency development of urban planners at all levels of government (central, provincial, and district/city) is essential to ensure that urban planning and design is carried out effectively. Urban planning covers various aspects, including spatial planning, land use, transport, infrastructure, and environmental management. Urban planners play an important role in identifying community needs, developing plans, and implementing urban development projects.

One example of capacity building in urban planning and design, and training for urban planners at all levels of government can be found in Jambi City. The Jambi Municipality organised training for government officials to improve their ability to prepare regional development plans. This training aims to increase the capacity of the apparatus in conducting good development preparation and planning.

Capacity building activities are also carried out to improve the Smart City Programme in Jambi City. In this case, the Jambi Municipality in increasing capacity designed a master plan for smart city development because Jambi City was selected to participate in the Movement Towards 100 Smart Cities from the Ministry of Communication and Information Technology. In designing the master plan, a team was formed consisting of the Smart City Council and the Smart City Implementation Team which involved a number of related parties, one of which was a university that took a concentration in the field of technology and informatics.

Jambi City has shown significant progress in the digital transformation of government through the implementation of the Electronic-Based Government System, which has a positive impact on the capacity building of city planners and the strengthening of the Smart City Council. In 2024, Jambi City achieved an SPBE index of 4.32 with the predicate "Satisfactory", ranking 4th nationally and the highest in Jambi Province. This achievement reflects success in the integration of information and communication technology to improve the efficiency of public services and governance.

Source: https://jambi.antaranews.com/berita/319033/kota-jambi-rancang-masterplan-pengembangan-kota-cerdas

2.2.7 Promote sustainable multi-modal public transport systems including non-motorised options

No. 14: Proportion of the population with easy access to public transport, by gender, age and disability

Blok M Reborn: Public Space, Transport and Literacy in Harmony

The revitalisation of the Blok M area in Jakarta involves improvements to the Blok M Terminal, Literacy Park, and surrounding pedestrian infrastructure. This development, known as the Blok M Transit Oriented Development (TOD), is a collaboration between PT MRT Jakarta, the DKI Jakarta Provincial Government, the Jakarta Municipal Transportation Board, and the private sector. The initiative aims to create a walkable, transit-connected, and livable urban environment.

PT MRT Jakarta leads the TOD planning and management, supported by regulatory frameworks such as Pergub No. 44/2017, which authorises TOD oversight by a regional enterprise. The Transportation Board contributes strategic direction, while private entities invest in facilities like commercial centres and public spaces. This synergy has improved mobility through the integration of MRT, TransJakarta, and other transport modes, while enhancing community spaces like the Martha Christina Tiahahu Literacy Park.

The park itself, spanning 9,710 square metres, offers amenities such as a library, amphitheatre, garden plaza, playground, and discussion rooms. It supports Jakarta's vision as a World Literacy City and serves both educational and recreational purposes. With around 3,000 donated books, it also acts as a collaborative space for literacy-focused events and youth engagement.

Blok M's transformation from a declining transit hub into a vibrant, modern urban centre exemplifies successful sustainable development. The terminal's integration with various transport systems has improved comfort and efficiency, while sidewalk upgrades around M-Blok and Plaza Blok M enhance walkability. Today, Blok M stands as a revitalised centre of cultural, social, and economic activity, especially popular among Jakarta's youth.

Source:
https://news.detik.com/berita/d-6303513/seputar-taman-literasi-blok-m-info-lokasi-dan-cara-berkunjung

2.3.1.4. Mobilise and establish financial intermediaries (multi-lateral institutions, regional development banks, regional and local development funds; pooled financing mechanisms, etc.) for urban financing

No. 67: Existence of at Least One Financial or Infrastructure Fund Available to Local/Sub-National Governments

Madiun Regency pioneers the "Availability Payment" scheme in the provision of Street Lighting Equipment

Madiun Regency is one of the pioneer regions that has successfully implemented the Availability Payment scheme for the Street Lighting Equipment (SLE) project with the scope of construction, operation, and maintenance of 7,400 SLE points. The investment return scheme used in this project is the availability payment scheme, which is a payment made periodically to the Business Entity for the availability of infrastructure services in accordance with the quality and criteria agreed in the Public-Private Partnership Agreement. Madiun Regency has long-standing SLE management problems, including uneven arrangement of lamps and SLE distribution, lack of data on installed lamps and high rates of illegal SLE connections, growth of self-supporting lamps, discrepancies in connection data, types of mercury lamps that have large power and waste energy, energy-intensive lamps using subscription rates, SLE installations that often threaten safety, the absence of SLE meters that are separate from the State Electricity Company network, and SLE maintenance without adequate budgets.

To overcome the classic chronic problems, the Madiun District Government took the initiative to use the Public, Private, and Partnetship (PPP) scheme with a return on investment in the form of AP. The scope of this PPP project includes: (i) design, construction, operation, maintenance of new SLE on road sections that are the scope of PPP and delivery of assets at the end of the cooperation period, (ii) metering of the entire SLE network within the scope of PPP, (iii) provision of lighting services with LED technology, (iv) electrical installation of SLE including installation of aerial cable networks and panel *boxes,* (v) operation and maintenance of SLE services for 10 years with a construction period of 1 year, and (vi) lighting services according to standard specifications regulated in the Minister of Transportation Regulation Number 27 of 2018 concerning Street Lighting Equipment.

The project cost an investment of Rp 90 billion with operation and maintenance costs reaching Rp 1.4 billion. With these costs, the Madiun District Government pays the avaibality payment of Rp 20.8 billion per year during the operating period (10 years). The project is financially viable, with a project Internal Rate of Return (IRR) of 10.66% and equity IRR of 13.12%. The project received an infrastructure guarantee from PT Penjaminan Infrastruktur Indonesia. With the avaibality payment scheme, there are a number of risks that are transferred to law-making body and there are also some that must still be borne by project cooperation responsible using the principle of efficient risk allocation, namely the risk is allocated to the party that is most

able to control. By fulfilling this principle, it is expected to achieve value for money for the government.

The implementation process of the PPP project for Public Street Lighting in Madiun Regency until signing on 21 September 2022 took approximately two years. The preliminary study was prepared in the first quarter of 2020, and although the signing process generally takes three months, in this project the time to financial close was accelerated to only 20 working days due to the relatively small scale and value of financing compared to typical PPP projects. This project has a number of unique features, such as a relatively small investment value with technical complexity and a simple investment return scheme.

In the auction process, the main criterion is not the lowest value of availability payment, but the largest number of road lighting points that can be offered by participants. In addition, the entire transaction process is carried out independently by project cooperation responsible without external party facilitation, and construction is carried out prior to financial close, in accordance with Bappenas Regulation Number 2 of 2020. The success of the Madiun SLE PPP project was also supported by strong synchronisation between Regional Apparatus Organisations, which was realised through a clear division of tasks at each stage of the project.

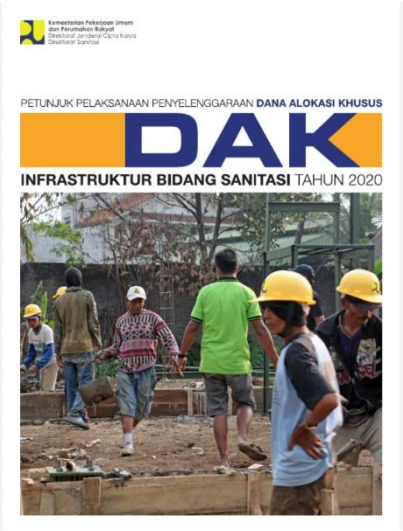
This results in an efficient process with good quality control. The relevant agencies' understanding of the PPP scheme was also quite good due to active participation in capacity building programmes and intensive coordination with the central government, particularly through the PPP Joint Office. In addition to these three key success factors, the success of this project was also supported by harmonisation between the executive and legislative branches. The Madiun District Government actively involved the local people's representative council in every stage of the PPP, so that the availability payment budgeting process could run smoothly.

Source:
Madiun District Government, NUF Report https://www.ahlikpbuindonesia.or.id/berita-dan-kegiatan/key-success-kpbu-alat-penerangan-jalan-apj-kabupaten-madiun/
https://kpbu.kemenkeu.go.id/berita/read/1569/proyek-kpbu-apj-resmi-beroperasi-7-459-titik-lampu-siap-terangi-kabupaten-madiun

Management of Special Allocation Funds in Support of Infrastructure Development in Payakumbuh City

The existence of financial and infrastructure funds for sub-national governments, mainly through the specific allocation fund and general allocation fund, aims to improve regional physical infrastructure, reduce inter-regional disparities, and improve public services. The specific allocation fund are funds allocated by the central government to regions to fund specific activities that are part of national priority programmes, such as education, health, road infrastructure and irrigation. The general allocation fund is a fund allocated to regions to reduce inequality in financial capacity and public services between regions, as well as to fund regional needs in the implementation of decentralisation.

In addition to specific allocation fund and general allocation fund, there is also Revenue Sharing Fund which is sourced from state budget revenues and allocated to regions on a percentage basis. The main purpose of financial transfers from the central government to the regions is to reduce inequality in funding sources between regions, reduce gaps in public services, and fund the implementation of special autonomy. The general allocation funds can also be allocated for predetermined purposes, such as to finance the payroll of the Government Employees with Work Agreements, village funding, education, and health.



Financial and infrastructure funds allocated to local/sub-national governments have an important role in improving development and public services in various regions, especially through allocation fund and general allocation fund which are focused on regional needs and priorities. Taking the example of Payakumbuh City, general allocation fund is used for various regional needs, both unspecified and specified. General allocation fund can be used for various government activities, including personnel expenditure, infrastructure development, and funding of other activities. Meanwhile, specific allocation fund, such as specific allocation fund for health sector, are allocated to finance health programmes and activities in the regions.

General allocation fund in Payakumbuh City totalling Rp 382,943,041,000.00 is used to fund various regional needs, such as personnel expenditure, infrastructure development financing, and other activities according to regional needs and priorities. In addition, there is also a specific-general allocation fund in Payakumbuh City worth Rp 77,405,481,000.00 which is allocated for special purposes, such as Payroll for the Government Employees with Work Agreements Formation: Rp3,363,903,000.00, general allocation fund for the Health Sector: special allocations to finance health programmes and activities in the regions, additional general allocation fund for the allocation of village funds: the amount of this allocation comes from the general allocation fund and is allocated equally to all villages in Payakumbuh City, in accordance with the Payakumbuh Mayor Regulation.

The use of general allocation fund in Payakumbuh City aims to: a) increase the standard of drinking water services used to meet the basic needs of the community such as health, education, and infrastructure, b) infrastructure development in supporting regional development such as the construction of roads, bridges, and other public facilities, c) increase capital expenditure that contributes to an increase in local government capital expenditure, and d) the implementation of decentralisation which aims to provide financial equity between regions and support the implementation of decentralisation. In this case, the use of general allocation fund in Payakumbuh City has an important role in financing various regional needs, both for government operational needs and infrastructure development and improving the quality of life of the community. This efficient and effective use of general allocation fund will support sustainable regional development.

Source:
https://djpb.kemenkeu.go.id/

2.3.1.4. Mobilise and establish financial intermediaries (multilateral institutions, regional development banks, regional and local development funds; pooled financing mechanisms, etc.) for urban financing

No. 68: Percentage of local/local government financial resources generated from financial intermediaries such as multilateral institutions, regional development banks, regional and local development funds, or pooled financing mechanisms

Building Back Better: Government and World Bank Collaboration in Post-Disaster Urban Rehabilitation

A prime example of effective urban financing through external funding is the Central Sulawesi Rehabilitation and Reconstruction Project (CSRRP), a partnership between the Indonesian Government and the World Bank in response to the 2018 earthquake, tsunami, and liquefaction disaster. The project secured a US$150 million World Bank loan to support infrastructure and settlement reconstruction in Palu City, Sigi, and Donggala. This showcases how multilateral financing can complement national and local budgets for post-disaster recovery.

CSRRP focuses on three components: permanent housing and settlement infrastructure, rehabilitation of public facilities like schools and health centres, and technical support for implementation. Funds are managed through a Designated Account at Bank Indonesia, with disbursements tied to interim financial reporting, ensuring transparency and oversight in line with Ministry of Finance regulations.

By December 2024, CSRRP had delivered 5,598 shelter units, restored educational facilities for over 26,000 students, and provided drinking water to more than 16,000 households. The project also integrates disaster-resilient and inclusive design standards, including accessibility features for people with disabilities—highlighting its holistic and accountable approach to post-disaster urban recovery.

Multilateral financial institutions (MFIs) such as the World Bank, Asian Development Bank (ADB), and Islamic Development Bank (IsDB) play a crucial role as financial intermediaries in urban development and disaster recovery, particularly for low- and middle-income countries. Their involvement extends beyond merely providing loans—they also offer technical assistance, risk mitigation tools, capacity building, and governance frameworks that ensure funds are used effectively, transparently, and for maximum impact. In the case of the Central Sulawesi Rehabilitation and Reconstruction Project (CSRRP), MFIs mobilise large-scale concessional financing, which provides access to affordable funding with favorable terms for national and local governments.

Beyond funding, MFIs offer technical assistance and ensure accountability through structured disbursement systems. In CSRRP, the World Bank implemented a designated account

mechanism tied to performance-based reporting, ensuring transparency and compliance with financial regulations. This model supports effective fund management and reduces the risk of misuse.

MFIs also enhance local institutional capacity by providing project management support, including guidance on procurement, environmental safeguards, and inclusive infrastructure. Their involvement introduces international best practices, including disaster-resilient and disability-inclusive design standards, which strengthen long-term urban resilience.

Additionally, MFIs serve as a catalyst for attracting further investment. Their presence assures co-financiers of project integrity, encouraging collaboration across sectors. In sum, multilateral institutions enable sustainable development not only by financing projects but also by reinforcing governance, transparency, and institutional capability at the local level.

In summary, multilateral financial institutions act as both funders and enablers, bridging the gap between global capital and local development needs. Their role in projects like CSRRP illustrates how they help not only to finance physical reconstruction but also to institutionalise resilience, build local government capacity, and promote inclusive urban recovery. The success of this programme serves as a good example of how local governments can mobilise development finance from external sources such as multilateral institutions, while ensuring transparent, accountable project implementation and direct impact on communities. This financing model is important to replicate in other regions, especially in facing the complex and urgent challenges of financing urban infrastructure development.

Source: https://sitaba.pu.go.id

2.3.2.1 Expand opportunities for inter-city co-operation and encourage the exchange of urban solutions and mutual learning

No 69: Number of cities participating in city-to-city partnership programmes

Bandung's participation in the Smart Cities Network as a Cities Partnership Programme

Numerous Indonesian cities participate in the Smart City Programme, which encourages collaboration and knowledge exchange between cities for smart city development. The ASEAN Smart Cities Network (ASCN) and the World Smart Sustainable Cities Organisation (WeGO) are two international cooperation platforms that encourage the transformation of cities towards smart and sustainable development. ASCN was established in 2018 as a regional initiative under ASEAN to strengthen connectivity and integration between cities through innovative technology solutions. Meanwhile, WeGO, based in Seoul and established since 2010, is a global organisation of cities, public institutions, and the private sector working together in the development of digital technologies to improve the quality of urban life.

Indonesian cities such as Jakarta, Bandung, Surabaya and Makassar play an active role in both networks. Jakarta and Makassar, for example, are among the 26 pioneering cities in ASCN and have developed smart city action plans that focus on digital governance, smart transport, and data-driven public services. Bandung and Surabaya, which are members of WeGO, utilise the network for technology exchange, human resource training, and the application of digital solutions in environmental and infrastructure management.

One of Bandung's flagship programmes in the context of *smart cities* is the integration of public services through the Bandung Command Centre and Bandung Smart City Dashboard applications, which enable real-time monitoring of city infrastructure and services. In addition,

the city also stands out in the utilisation of *open data* to support evidence-based decision-making and information disclosure to citizens. The chronology of Bandung's involvement in the smart city partnership is as follows:

2015: Bandung began to be active in city diplomacy and international cooperation, including through sister city programmes and global city networks that encourage the adoption of technology in city governance.

2016-2017: Bandung implemented various local smart city initiatives such as Bandung Command Centre, open data portal, and digital platforms for public services (licensing, complaints, transport, etc.). These innovations attracted the attention of global city networks.

2018: Bandung was officially designated as one of the 26 pioneer cities in the ASEAN Smart Cities Network (ASCN) at the ASEAN Summit in Singapore. The city developed a Smart City Action Plan with a focus on digital transformation, green transport, and community participation.

2019: Bandung joined as an active member of the World Smart Sustainable Cities Organization (WeGO), and started participating in training programmes and good practice sharing forums organised by WeGO. Bandung became one of the reference cities for smart city projects in Southeast Asia.

2020-2022: Bandung participated in various forums and projects with ASCN and WeGO, including best practice exchange and cooperation on smart mobility technology, digital disaster management, and integrated transport systems. Bandung also developed cooperation with Seoul through staff training programmes and the development of a public sector digital transformation plan.

2023-2024: Bandung strengthens its role in international forums by hosting bilateral meetings and seminars on smart cities and ASEAN collaboration. Through support from WeGO, Bandung expands digital infrastructure for sensor-based transport and public services as well as disaster early warning systems.

2025: Bandung continues to renew its commitment to ASCN and WeGO by adapting its Smart City Action Plan *to* current issues such as climate change, digitisation of basic services, and the digital economy. The city became one of Indonesia's representatives in international smart cities forums and was invited as a speaker in several Asian smart city panels.

Participation in ASCN and WeGO also opens access to international financing, technology cooperation opportunities, and global recognition that strengthens the competitiveness of Indonesian cities in facing the challenges of urbanisation and climate change. Overall, active participation in these two networks marks Indonesia's commitment to realising smarter, more inclusive and resilient cities.

Source:

1. ASEAN Secretariat. (2018). *ASEAN Smart Cities Framework*.
2. ASEAN Secretariat. (2021). *ASEAN Smart Cities Network Annual Report*.
3. WeGO Official Website. *City Members & Projects*.
4. Communication and Informatics Office of Bandung City. (2023). *Smart City Performance Report*.

2.3.2.4 Support local government associations as promoters and providers of capacity building

No 72: Local government association budget measure

Surabaya City Supports Local Government Association as a Motor for Local Government Capacity Building

Surabaya City exemplifies strong support for local government capacity building through active engagement with municipal associations. As a committed member of the Indonesia Municipality Association (APEKSI), Surabaya not only participates in various forums and trainings but also frequently hosts inter-city capacity-building activities. Mayor Eri Cahyadi's re-election as Chair of the APEKSI Governing Board for 2025–2030 underscores the city's leadership role in municipal collaboration.

Surabaya's involvement includes active participation in APEKSI programs such as training on regional financial management, public service innovation, and climate change adaptation. This commitment is also reflected in budgetary support; the city allocates dedicated funds within its regional budget for staff training and comparative studies. These efforts demonstrate Surabaya's consistent dedication to enhancing local governance and institutional capacity.

In addition to the APEKSI, Surabaya also partners with USAID and UNDP in capacity building programmes involving other cities, and adopts training modules based on good practices and evidence-based policies. For example, through the Local Governance Support Program (LGSP), Surabaya, together with local government associations, succeeded in developing a good practice guide in city governance management that is now used as a reference for other regions.

The impact of this support for local government associations can be seen in the improvement of Surabaya City's public service performance, which is reflected in the achievement of the Government Agency Performance Accountability System in index with an A predicate, as well as a number of public service innovation awards from the Ministry of Administrative and Bureaucratic Reform (PAN-RB).

Surabaya City's support for local government associations proves that the synergy between the municipality and local collective institutions can be an important motor in realising a professional, innovative and responsive local government to development challenges.

Source:

1. APEKSI. (2023). *APEKSI 2023 Activity Report.* www.apeksi.id
2. Ministry of PAN-RB. (2023). *Local Government SAKIP Evaluation Results 2022*.
3. USAID Indonesia. (2020). *Local Governance Support Programme Final Report*.
4. Surabaya Municipality. (2024). *RKPD and APBD documents of Surabaya City*.

2.3.3.1. Development of user-friendly participatory data and digital platforms through electronic governance and citizen-centred digital governance tools

No. 75: Percentage of cities using citizen-centred e-governance and digital governance tools

Smart Banjarmasin: Digital Ecosystem as Public Service Centre

Banjarmasin City has taken significant steps in building a digital ecosystem for one-stop public services. Its Electronic-Based Government System (SPBE) was recognized nationally, ranking 6th among municipalities in the 2024 Digital Government Award (DGA). This achievement reflects strong implementation across government agencies, assessed through 47 indicators by 30 universities.

A key innovation is the *Banjarmasin Pintar* application, launched in 2021 as South Kalimantan's first digital super app. It integrates 63 applications—18 for public services and the rest for internal government use—into a single platform with a Single Sign-On (SSO) system. This allows users to access various services using one account. Developed by the city's Communication, Information, and Statistics Agency, the app enhances accessibility and streamlines services for both citizens and civil servants.

Various applications that were originally separate in each regional apparatus organisation are combined into one application with the Single Sign On (SSO) system. With the system that has been developed, the public can log in and register for applications with just one account. The Smart Banjarmasin is the first Super Application in South Kalimantan that offers various public services in Banjarmasin City in one application. The integration of all public services into the Super Application supports the community to get services easily through one digital platform. The application, developed by the Communication, Information, and Statistics Agency of Banjarmasin City, consists of public services for the community and government administration services for the state civil apparatus.

The commitment of local leaders plays an important role in the implementation of Banjarmasin City's Electronic-Based in Banjarmasin City, so that various parties can collaborate in running the Banjarmasin City's Electronic-Based. The key to Banjarmasin City's success in pursuing a digital ecosystem cannot be separated from the collaboration and coordination of various parties. However, education, collaboration, socialisation, monitoring, and evaluation are still needed to ensure the Banjarmasin City's Electronic-Based stays on track. The importance of service integration as a new innovation in overcoming complex problems due to various separate applications in various government agencies with public satisfaction and convenience as the main focus.

Source:
https://pintar.banjarmasinkota.go.id/
https://www.menpan.go.id/site/berita-terkini/keberhasilan-banjarmasin-hadirkan-ekosistem-digital
https://kalimantanpost.com/2024/05/spbe-banjarmasin-raih-prestasi-10-terbaik-nasional-digital-government-award-2024/
https://organisasi.banjarmasinkota.go.id/2023/04/banjarmasin-pintar-semua-aplikasi.html

2.3.3.1. Development of user-friendly participatory data and digital platforms through electronic governance and citizen-centred digital governance tools

No. 75: Percentage of cities using citizen-centred e-governance and digital governance tools

Makassar Smart City

The Smart City development process in Makassar City started in 2015 with the initial phase involving the establishment of *Smart City* Council and the preparation of strategic guidelines, including Makassar Smart City Masterplan. Makassar Municipality collaborates with various stakeholders, such as PT Telkom Indonesia, to develop technology infrastructure and digital services. This effort paid off with the Smart City Nusantara 2017 award from PT Telkom Indonesia. In addition, in the same year, the city received an award from the OpenGov Leadership Forum in Singapore, highlighting digital innovations implemented in governance.

Innovations such as Lorong Wisata also brought Makassar to the Indonesia Smart Nation Awards (ISNA) 2022 in the category of Best Smart Branding Innovation. This programme has successfully transformed the city's alleys into productive economic centres and local tourist destinations. In addition, in 2024, Makassar was awarded the South-East Asia Region (SEAR) Healthy City Network Award from the World Health Organisation (WHO), recognising its commitment in creating a healthy and sustainable urban environment. Makassar's Smart City evaluation score continues to increase from 3.14 in 2023 to 3.64 in 2024.

Makassar City has achieved various advancements in Smart City development, making it one of the pilot cities in Indonesia. One of its flagship innovations is Makassar's War Room, a control centre that monitors city conditions in real-time using CCTV and IoT sensors. In addition, the Pete-pete Smart Programme brings digital-based transportation with cashless payment, while e-Parking system improves transparency of local revenue. In the public service sector, Pakinta application facilitates *online* citizen complaints, while Makassar Smart Card allows access to various services with one card. With the collaboration between the government, private sector, and the community, Makassar City is strengthening its role as a smart, innovative, and inclusive city.

Makassar is also become top three cities in Indonesia selected as the best *Smart City* in Southeast Asia. This achievement is based on the results of the Smart City Index (SCI) 2024 survey released by the Institute of Management and Development (IMD), which chose Jakarta, Medan, and Makassar to be ranked 103, 112, and 115 out of a total of 142 world cities that have been surveyed. Based on the survey results, Makassar excels in satisfaction with the ease of scheduling health services online (score 74), accessing job opportunities online (score 73.9), as well as accessing schedules and purchasing public transport tickets online (score 72.1). In addition, to supporting Smart City Programmes such as Homecare & Telemedicine and Pakinta E-Tax, the Department of Communication and Information continues to develop Makassar Metaverse, MARVEC, as well as the most recently Traffic Detection using Artificial Intelligence (AI).

Source: https://makassarkota.go.id/2024/05/kota-makassar-jadi-salah-satu-kota-di-indonesia-dengan-smart-city-terbaik-di-asia-tenggara/

2.3.3.2. Use of digital tools, including geospatial information systems to improve urban and territorial planning, land administration and access to urban services

No. 76: Percentage of Cities Using Geospatial Information Systems

Utilisation of Digital and Spatial Technology in Bontang City

Bontang City is one of the cities that utilise the use of geospatial in development planning with various categories and data displays summarised in *https://petakita-bontangkota.hub.arcgis.com/.* Bontang City has several information systems, including:

1. Asmara Bang Sige*,* presents a recap and detailed information of each proposal from the results of community meetings with a display that STIMULAN presents a recap and detailed information on stimulant proposals from each RT. This information system functions in the collection and delivery of community aspirations musrenbang (Rembug Warga) which can be accessed via mobile phones and facilitates monitoring and verification through a *dashboard.* This makes the musrenbang process faster and the data collected is already in digital form and has a spatial aspect;

2. The Si Geo ship is a data collection of persons with disabilities by Name by Address (BNBA) and becomes a database for the Social and Community Empowerment Office in formulating policies and distributing assistance for persons with disabilities. Some other utilisations consist of: 1) YAPI (Orphans), 2) Kencana Ungu (Elderly), and 3) Pendekar (Widows);

3. ASN Tree, the implementation of the Bontang Mayor's Instruction regarding the obligation to plant trees for CPNS who are appointed as civil servants and who get promoted. The utilisation in other environmental fields consists of: 1) Canteen Tree, 2) IKLH, and 3) Climate Action Reporting;

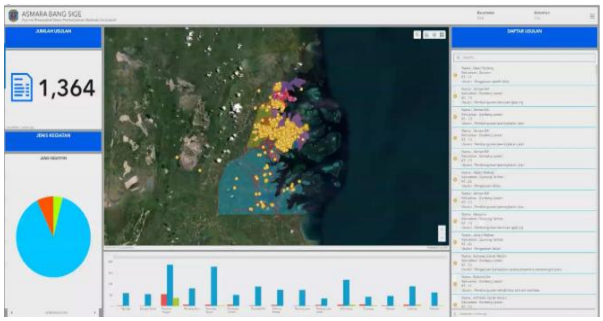
4. Hunting De Sun, is useful for monitoring stunting prevention data by scaling up nutrition. This is an effort to improve community nutrition by involving the government, community, and all stakeholders. Geospatial helps in analysing data and making strategic policies to prevent and reduce *stunting*. In addition, this information system is also useful in the health sector including: 1) health facilities, 2) Posyandu profiles, and 3) safe food information;

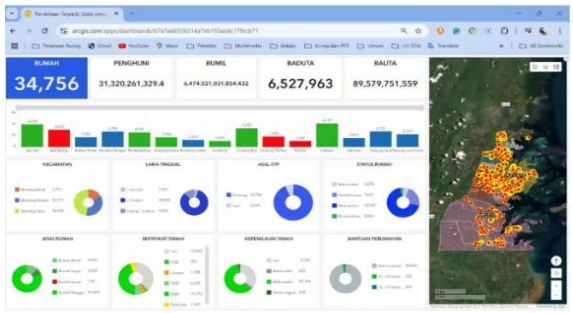
5. Pentol, to monitor data mapping and recording of pregnant women and children. This information system was created based on the initiative of Posyandu Kartini cadres in Bontang Kuala Village as a monitoring tool for pregnant women and infants to help the stunting prevention programme. This information system is planned to be replicated for all posyandu in Bontang City;

6. Drug Insecurity Map, contains data on drug prevention, early detection, eradication, and rehabilitation activities that are expected to help analyse to improve preparedness and eradicate the spread of drugs. This information system is planned to be replicated by the National Anti-Narcotics Agency throughout Indonesia.

7. Integrated House Data Collection, a census data collection that is conducted to obtain a database of housing and settlement areas, data on uninhabitable houses, and social and economic data. The system has been used by 80 enumerators, most of whom are posyandu cadres. The results of this data collection will be able to produce several thematic dashboards;

8. LIDAR was carried out to provide spatial data of Bontang City in order to update and upgrade the base map, as well as to create and upgrade 3D model maps as a means of tax optimisation to increase Regional Original Revenue which was carried out with assistance and supervision from the Geospatial Information Agency.





Acknowledging that 91% of Bontang City problems need spatial intervention, the GIS development has again made a national achievement by winning the Bhumandala Award 2024 in the category of Best Geospatial Information Network Node Performance. This award is the third time received by Bontang, signifying the city's consistency and commitment in developing and utilising geospatial data to support development and public services. This success cannot be separated from the active role of the Regional Development Planning, Research and Innovation Agency of Bontang City, which has collected data on the facilities and infrastructure of the geospatial information network nodes, and ensured that the available data is accurate and up-to-date to support decision making.

Source: Bontang Municipality

2.3.2.1 Expand opportunities for inter-city co-operation and encourage the exchange of urban solutions and mutual learning

No. 70 Number of Public Water and Sanitation Utilities Participating in Institutional Capacity Building Programme

Learning from Regional Water Company in Banyuwangi City

Regional Water Company in Banyuwangi City stands out as one of the best-performing drinking water regional owned enterprises in East Java. Regional Water Company in Banyuwangi City won an award as the Best Performing Drinking Water Service Regional Owned Enterprises from the East Java Financial and Development Supervisory Agency in 2023. This achievement complements from the previous achievements, where Regional Water Company in Banyuwangi City won the first place for the best performance based on indicators from the Directorate General of Human Settlements from Ministry of Public Works in 2021 and 2022, both at the East Java Province and national levels. In addition, Regional Water Company in Banyuwangi City also received an award from the Ministry for the implementation of safe drinking water, entering the top three out of 541 districts/cities throughout Indonesia. This award shows the commitment of Regional Water Company in Banyuwangi City in providing access to drinking water that fulfils the Safety Principle: Quality, Quantity, and Continuity.

The drinking water distribution system managed by Regional Water Company in Banyuwangi City service covers five sub-districts, namely Banyuwangi Sub-district, Giri Sub-district, Glagah Sub-district, Kalipuro Sub-district, and Kabat Sub-district. The Regional Water Utility Company service level is 54.7% of the total population in the service area. Lessons learnt from Banyuwangi Regional Water Utility Company include:

1. **Water Resources Management**: managing water resources wisely, including planning, maintenance, and efficient distribution, ensuring that clean water supply can meet the needs of citizens, whether for household consumption, industrial needs, or agriculture.
2. **Community counselling**: on the importance of maintaining cleanliness and preservation of water sources, how to use water wisely, and the importance of waste management that does not pollute water sources.
3. **Infrastructure Improvement**: the construction and routine maintenance of pipelines and Water Treatment Plants (WTP) are carried out to reduce leakage and ensure smooth water distribution to all areas and no interruptions that can hamper the flow of water to customers.
4. **Use of Technology**: real-time monitoring of water quality and distribution flow helps in reducing wastage, minimizing disruptions and improving service quality.
5. **Financial Management and Water Tariffs**: be wise in setting water tariffs so that they remain affordable for the community, but also sufficient to finance the operation and development of facilities.

6. **Collaboration with Government and Private Sector**: essential to expand the network and increase water treatment capacity.
7. **Response to Water Crisis**: In certain situations, such as drought or natural disasters that disrupt water supply, it is necessary to respond quickly and efficiently, so crisis management is required, such as distribution of a limited amount of clean water or utilisation of alternative water sources.

With this comprehensive approach, Regional Water Company in Banyuwangi City can continue to improve water services, not only in terms of availability, but also in terms of sustainability, efficiency, and quality of service to the community. Regional Water Company in Banyuwangi City has hosted and been a resource person in various national capacity building forums, such as workshops and Inter-Regional Water Company comparative studies. In these forums, Regional Water Company in Banyuwangi City shared a number of good practices that have been implemented in institutional transformation and service quality improvement, such as the implementation of a digital-based customer information system to improve service efficiency and complaint management, institutional governance reforms, including changes to a more streamlined and responsive organisational structure based on Government Regulation Number 16/2017. In the area of financial and tariff management, Regional Water Company in Banyuwangi City shared how to maintain operational efficiency without sacrificing service quality, as well as strategies in formulating fair and transparent water tariffs according to the principle of full cost recovery, while remaining affordable for the community. Another topic of interest was the implementation of a Non-Revenue Water (NRW) leakage monitoring system, which has significantly reduced water loss through technology investment and technical training for field staff.

Source: https://pudambanyuwangi.co.id/index.php?r=Artikel/Visi

2.3.3.3 Strengthen capacity at all levels of government to effectively monitor implementation of urban development policies

No. 77: Number of countries that have participated in capacity building workshops on New Urban Agenda indicators

Capacity building of Local Government in VLR Reporting: Localise SDGs and I-SIM for Cities

Since 2021, several local governments in Indonesia have submitted Voluntary Local Reviews (VLR) as part of an effort to document progress, challenges and good practices in achieving the Sustainable Development Goals (SDGs) at the local level. Surabaya City became the first city to submit a VLR in 2021, followed by West Java Province in 2023. In addition, the Nusantara Capital City Authority also launched an initial review of the Nusantara SDGs VLR in 2024. Kendal and Kutai Kartanegara districts are also developing their VLRs with support from UCLG ASPAC and Tanoto Foundation in 2024.

In the VLR development process, UCLG ASPAC acts as a facilitator and technical assistance for local governments. Together with APEKSI (Association of Indonesian Municipalitys), UCLG ASPAC runs the LOCALISE SDGs programme which aims to strengthen the capacity of local governments in effectively implementing the SDGs. The programme focuses on 16 provinces and 14 cities in Indonesia and includes activities such as training, mentoring, and preparation of VLR reports, as well as encouraging collaboration between local governments, communities, and the private sector.

In addition to the preparation of the VLR, accelerating the achievement of the SDGs at the city and district level is also carried out through a transparent ranking scheme through I-SIM (Integrated Sustainability Indonesia Movement). I-SIM is a multi-stakeholder initiative movement organised by PT Surveyor Indonesia in collaboration with the Association of Indonesian Municipalitys and the Association of Indonesian Regency Governments. The I-SIM programme consists of two parts: I-SIM for Cities which focuses on SDG's ranking at the Municipality level and I-SIM for Regencies which focuses on ranking at the Regency Government level. Both programmes are integrated with Indonesia's SDGs Action Awards organised by the Ministry of National Development Planning.

In 2022, I-SIM for Cities involved 74 out of 93 cities in Indonesia. While in 2023, I-SIM for Regencies involved 103 out of 415 regencies across Indonesia. This high participation shows the commitment of local governments to achieve SDGs in a measurable and transparent manner. I-SIM also opens opportunities for non-government development partners, such as businesses, philanthropic institutions, and civil society organisations to collaborate in supporting city and regency government flagship programs with the aim of creating strong synergies in achieving SDGs at the local level.

Through the support of UCLG ASPAC and APEKSI, local governments in Indonesia are expected to improve their understanding and commitment to the SDGs, as well as strengthen their monitoring and reporting system on SDGs achievements at the local level. The preparation of the VLR is also a means to share experiences and good practices between regions and strengthen Indonesia's position in international forums related to sustainable development.

Source: https://localisesdgs-indonesia.org/ ; https://isim.ptsi.co.id/

IMPLEMENTATION OF NEW URBAN AGENDA

National Update Report: Book 3 Annex

Republic of Indonesia

Ministry of Public Works
(National Focal Point)
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IMPLEMENTING THE NEW URBAN AGENDA

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1

TRANSFORMATIVE COMMITMENT TO SUSTAINABLE URBAN DEVELOPMENT

1 .1 Sustainable Urban Development for Social Inclusion and Ending Poverty

1.1.1 Reducing inequality and promoting social inclusion and empowerment of vulnerable groups

1.1.1.1 Eradicate Poverty in All Its Forms

Indicator 1: Proportion of population below the international poverty line, by sex, age at national urban level

Table I. 1 National and Extreme Poverty Rates (%), 2019-2024

Poverty rate	2019	2020	2021	2022	2023	2024
National Poverty Level	9.41	9.78	10.14	9.54	9.36	9.03
Extreme Poverty Level (USD 3 per day PPP 2021)	10.8	9.8	8.6	7.9	6.7	5.4

Source: Statistics Indonesia, 2024; https://data.worldbank.org/

Table I. 2 Poverty Level in Urban and Rural Areas (%), 2019-2024

Category	2020		2021		2022		2023		2024	
	March	Sept	March	Sept	March	Sept	March	Sept	March	Sept
Urban	7.38	7.88	7.89	7.6	7.5	7.53	7.29	-	7.09	6.66
Rural	12.82	13.2	13.1	12.53	12.29	12.36	12.22	-	11.79	11.34
National	9.78	10.19	10.14	9.71	9.54	9.57	9.36	-	9.03	8.57
Poor People (in Millions)	26.42	27.55	27.54	26.50	26.16	26.36	25.90	-	25.22	24.06

Source: Statistics Indonesia, 2024

Table I. 3 Changing Numbers of Urban Poor Population Among Provinces in Indonesia (in thousand), 2023-2024

38 Provinces	Amount		Percent
	2023	2024	
Aceh	9.79	9.6	-0.19
North Sumatra	8.23	7.93	-0.3
West Sumatra	4.67	4.72	0.05
Riau	6.73	6.76	0.03
Jambi	10.19	9.5	-0.69
South Sumatra	11.07	10.04	-1.03
Bengkulu	14.21	13.56	-0.65
Lampung	8.02	8.18	0.16
Bangka Belitung Islands	3.54	3.39	-0.15
Riau Islands	5.05	4.85	-0.2
Jakarta	4.44	4.3	-0.14
West Java	7.19	7.07	-0.12

38 Provinces	Amount		Percent
	2023	2024	
Central Java	9.78	9.71	-0.07
In Yogyakarta	10.27	10.29	0.02
East Java	7.5	7.12	-0.38
Banten	6	5.69	-0.31
Bali	3.77	3.55	-0.22
West Nusa Tenggara	13.76	12.86	-0.9
East Nusa Tenggara	9.12	8.57	-0.55
West Kalimantan	4.44	4.25	-0.19
Central Kalimantan	4.78	4.89	0.11
South Kalimantan	3.84	3.62	-0.22
East Kalimantan	4.68	4.47	-0.21
North Kalimantan	5.18	4.73	-0.45
North Sulawesi	4.91	4.75	-0.16
Central Sulawesi	8.9	8.61	-0.29
South Sulawesi	5.01	5.08	0.07
Southeast Sulawesi	7.4	7.45	0.05
Gorontalo	4.47	4.57	0.1
West Sulawesi	9.08	9.29	0.21
Maluku	5.49	5.14	-0.35
North Maluku	6.23	6.12	-0.11
West Papua	8.23	8.17	-0.06
Southwest Papua	-	8.51	-
Papua	5.68	6.33	0.65
South Papua	-	3.1	-
Central Papua	-	4.32	-
Papua Pegunungan (Highlands)	-	16.56	-
Indonesia	**7.29**	**7.09**	**-0.2**

Source: Statistics Indonesia, 2024

Table I. 4 Poverty Level by Age, 2020-2024

Poor Population Based on Group Age (%)	Year					
	2019	2020	2021	2022	2023	2024
18 years	11.76	12.23	12.64	11.8	11.78	11.44
> 18 Years	8.32	8.65	9.09	8.6	8.37	8.05

Source: Statistics Indonesia, 2024

1.1.1.2 Address Inequality in Urban Areas by Promoting Equally Shared Opportunities and Benefits

Indicator 10: Unemployment rate by sex, age, persons with disabilities and by city

Table I. 5 Labour Force Participation in Indonesia (by Gender), 2021-2024

Category	Year			
	2021	2022	2023	2024
Male	82,27	83,87	84,26	84,66
Female	53,34	53,41	54,52	56,42

Source: Statistics Indonesia, 2024

Table I. 6 Percentage of the population with disability aged 15 years and over who are working, 2024

Category	type 3 disability			type 1 disability		
	Male	Female	Cumulative	Male	Female	Cumulative
Urban	27,16	12,08	19,12	49,35	24,23	35,44
Rural	34,46	16,18	24,72	62,68	33,36	46,62
Cumulative	30,46	13,93	21,65	55,47	28,36	40,53

Source: Statistics Indonesia, 2024

Table I. 7 Open Unemployment Rate (%), 2020-2024

Years	Rate (%)
Feburary 2020	4,94
August 2020	7,07
Feburary 2021	6,26
August 2021	6,49
Feburary 2022	5,83
August 2022	5,86
Feburary 2023	5,45
August 2023	5,32
Feburary 2024	4,82
August 2024	4,91

Source: Statistics Indonesia, 2024

Indicator 33: Gini coefficient at national/ city /urban levels

Table I. 8 Gini Ratio, 2020-2024

Province	Urban+Rural							
	2021		2022		2023		2024	
	March	Sept	March	Sept	March	Sept	March	Sept
Aceh	0.324	0.323	0.311	0.291	0.30	-	0.294	0.294
North Sumatra	0.314	0.313	0.312	0.326	0.31	-	0.297	0.306
West Sumatra	0.306	0.300	0.3	0.292	0.28	-	0.283	0.287
Riau	0.326	0.327	0.326	0.323	0.32	-	0.307	0.306

Province	Urban+Rural							
	2021		2022		2023		2024	
	March	Sept	March	Sept	March	Sept	March	Sept
Jambi	0.321	0.315	0.32	0.335	0.34	-	0.321	0.315
South Sumatra	0.341	0.340	0.339	0.33	0.34	-	0.333	0.331
Bengkulu	0.326	0.321	0.315	0.315	0.33	-	0.342	0.343
Lampung	0.323	0.314	0.314	0.313	0.32	-	0.302	0.301
Bangka Belitung Islands	0.256	0.247	0.236	0.255	0.25	-	0.244	0.235
Riau Islands	0.343	0.339	0.342	0.325	0.34	-	0.349	0.357
Jakarta	0.409	0.411	0.423	0.412	0.43	-	0.423	0.431
West Java	0.412	0.4006	0.417	0.412	0.43	-	0.421	0.428
Central Java	0.372	0.368	0.374	0.366	0.37	-	0.367	0.364
In Yogyakarta	0.441	0.436	0.439	0.459	0.45	-	0.435	0.428
East Java	0.374	0.364	0.371	0.365	0.39	-	0.372	0.373
Banten	0.365	0.363	0.363	0.377	0.37	-	0.353	0.359
Bali	0.378	0.375	0.363	0.362	0.36	-	0.361	0.348
West Nusa Tenggara	0.381	0.384	0.373	0.374	0.38	-	0.361	0.364
East Nusa Tenggara	0.346	0.339	0.334	0.34	0.33	-	0.316	0.316
West Kalimantan	0.313	0.315	0.314	0.311	0.32	-	0.310	0.314
Central Kalimantan	0.323	0.320	0.319	0.309	0.32	-	0.301	0.304
South Kalimantan	0.330	0.325	0.317	0.309	0.31	-	0.302	0.298
East Kalimantan	0.334	0.331	0.327	0.317	0.32	-	0.321	0.310
North Kalimantan	0.292	0.285	0.272	0.27	0.28	-	0.264	0.259
North Sulawesi	0.365	0.359	0.365	0.359	0.37	-	0.360	0.347
Central Sulawesi	0.316	0.326	0.308	0.305	0.30	-	0.301	0.309
South Sulawesi	0.382	0.377	0.377	0.365	0.38	-	0.363	0.360
Southeast Sulawesi	0.390	0.394	0.387	0.366	0.37	-	0.370	0.365
Gorontalo	0.408	0.409	0.418	0.423	0.42	-	0.414	0.413
West Sulawesi	0.356	0.366	0.362	0.371	0.35	-	0.354	0.330
Maluku	0.314	0.316	0.301	0.306	0.29	-	0.282	0.291
North Maluku	0.300	0.278	0.279	0.309	0.30	-	0.316	0.296
West Papua	0.380	0.374	0.37	0.384	0.37	-	0.389	0.385
Southwest Papua	-	-	-	-	-	-	0.346	0.347
Papua	0.397	0.396	0.406	0.393	0.39	-	0.362	0.405
South Papua	-	-	-	-	-	-	0.404	0.424
Central Papua	-	-	-	-	-	-	0.381	0.355
Papua Pegunungan (Highlands)	-	-	-	-	-	-	0.34	0.346
Indonesia	**0.384**	**0.381**	**0.384**	**0.381**	**0.390**	**-**	**0.379**	**0.381**

Source: Statistics Indonesia, 2024

1.1.1.3 Enhance Social Inclusion of Vulnerable Groups (Women, Youth, Older Persons, and Persons with Disabilities and Migrants)

Indicator 4: Women's recognized legal right to property inheritance and ownership

Table I. 9 Percentage of Property Ownership by Sex, 2021-2023

Year	MALE		FEMALE	
	Belonging to Oneself	Rent / Contract	Belonging to Oneself	Rent / Contract
2020	7.971,00	928	8214	919
2021	8.092,00	866	8204	866
2022	8.367,00	626	8615	528
2023	8.449,00	522	8681	393

Source: Statistics Indonesia, 2024

Indicator 34: Presence of national legislation forbidding discrimination in housing, access to public facilities and social services on the basis of race, color, sex, language, religion, political or other opinion, national or social origin, property, birth or other status

Table I. 10 Indonesia Democracy Index, 2021-2023

No	IDI	2021	2022	2023
1	Civil Liberty Index	79.79	86.77	78.03
2	Political Rights Index	76.01	70.76	100
3	Democratic Institution Index	83.59	83.82	81.98
	Indonesian Democracy Index	**79.83**	**80.25**	**86.67**

Source: Statistics Indonesia, 2024

Table I. 11 Indonesia Democracy Index (IDI) By Indicators, 2021-2023

No	Democracy Index Indicators	2021	2022	2023
1	Guaranteed freedom of assembly, association, expression, and opinion by state officials	47.13	88.51	70.11
2	Guaranteed freedom of assembly, association, expression, and opinion among the community*	-	-	-
3	Guaranteed freedom of belief	100	92.34	77.01
4	Guaranteed freedom of assembly, association, expression, opinion, and belief in every policy	89.66	88.51	87.36
5	Guaranteed right to vote and be elected in elections*	-	-	-
6	Fulfillment of workers' rights*	-	-	-
7	A free press in carrying out its duties and functions	72.11	75.92	61.95
8	Gender equality	100	100	100

No	Democracy Index Indicators	2021	2022	2023
9	Public participation in influencing public policy through representative institutions	76.1	70.16	100
10	Anti-monopoly of economic resources*	-	-	-
11	Poor people's access to social protection and security*	-	-	-
12	Equality of employment opportunities between regions*	-	-	-
13	Public access to public information	69.84	75.35	71.76
14	Equality in basic services*	-	-	-
15	Performance of legislative institutions	33.33	60	52.38
16	Performance of the judiciary	99.1	99.02	99.29
17	Neutrality of election organizers	91.67	91.67	83.33
18	Decision of the State Administrative Court regarding government official policies	81.03	53.45	57.47
19	Government guarantees for environmental preservation and community living space*	-	-	-
20	Budget transparency in the form of provision of APBN/D information by the government	100	100	100
21	Bureaucratic performance in public services	80	82.6	81.4
22	Political education for political party cadres	100	100	100

Source: Statistics Indonesia, 2024

Indicator 19: Average share of the built-up area of cities that is open space for public use for all, by sex, age, and persons with disabilities.

Data is described in the report.

1.1.1.4 Ensure Equal Access to Public Spaces Including Streets, Sidewalks, And Cycling Lanes

Indicator 35: Percentage of road length that has dedicated bicycle lanes (excluding motorways).

Table I. 12 Length of Bicycle Lanes on National Roads in Greater Jakarta, 2019-2023

Year	DKI Jakarta	Bogor Regency	Depok City	Bekasi Regency	Bekasi City
2020	-	-	-	-	-
2021	178,00	-	-	-	-
2022	-	178,00	-	-	-
2023	-	126,00	1.197,00	114,00	-

Source: Statistics Indonesia, 2024

Indicator 36: Percentage of road length that has dedicated sidewalks (excluding motorways).

Table I. 13 Sidewalk Length and Areas in DKI Jakarta Province, 2001-2022

No.	Year	Length (m)	Area (m2)
1	2001	511.194,00	766.791,00
2	2002	515.446,00	773.169,00
3	2003	5.154.461,00	7.731.691,00
4	2004	5.154.461,00	7.731.691,00
5	2005	5.365.619,00	8.715.581,00
6	2006	5.365.619,00	8.715.581,00
7	2007	5.403.369,00	9.784.831,00
8	2008	5.403.369,00	9.784.831,00
9	2009	5.403.369,00	9.784.831,00
10	2010	5.403.369,00	9.784.831,00
11	2011	5.403.369,00	9.784.831,00
12	2012	5.403.369,00	9.784.831,00
13	2013	5.403.369,00	9.784.831,00
14	2014	5.403.369,00	9.784.831,00
15	2015	5.403.369,00	9.784.831,00
16	2016	5.430.737,00	9.949.723,00
17	2017	5.430.737,00	9.949.723,00
18	2018	5.430.737,00	9.949.723,00
19	2019	5.430.737,00	9.949.723,00
20	2020	5.450.737,00	9.969.723,00
21	2021	5.450.737,00	9.969.723,00
22	2022	5.450.737,00	9.969.723,00

Source: Statistics Indonesia, 2024

1.1.2 Access to Adequate Housing

1.1.2.1 Ensure Access to Adequate and Affordable Housing

Indicator 31: Median amount of money spent on housing and transportation per household as a percentage of the median annual household income of tenants

Table I. 14 Percentage of Monthly Expenditure Average by Group of Goods in Indonesia, 2019-2024

Item Group	2019	2020	2021	2022	2023	2024
Food:						
- Grains	5,574,863	5,449,143	5,518,444	5,380,563	5,520,202	6,307,034
- Tubers	505.137	518,985	620,048	650,461	615,619	569,278
- Fish	3,887,928	3,799,488	4,073,543	4,242,299	3,988,973	3,842,897
- Meat	2,126,815	2,157,208	2,335,857	2,657,376	2,456,083	2,431,602
- Eggs and milk	2,783,547	2,844,114	2,786,783	2,672,934	2,580,464	2,517,488
- Vegetables	3,252,396	3,703,511	425,941	409,461	3,933,155	3,997,688
- Nuts	967,413	950,811	1,033,895	1,028,799	1,023,069	9,807

Item Group	2019	2020	2021	2022	2023	2024
- Fruits	2,355,246	2,457,072	2,074,967	2,314,165	2,239,209	2,710,112
- Oils and fats	1,133,718	1,154,861	1,274,002	1,635,564	1,292,524	1,218,432
- Drink ingredients	1,443,717	1,496,024	1,539,158	1,499,344	1,403,915	1,404,212
- Spices	929.425	963,519	1,074,884	1,125,652	103,789	1,011,204
- Other consumption	863,401	862,662	973,765	1,010,392	956,627	893.117
- Processed food and drink	1,725,886	1,686,694	1,563,207	1,563,884	1,567,501	1,592,088
- Tobacco and betel	6,053,407	5,991,881	6,055,939	6,189,532	6,268,011	6,296,057
Non food:						
- Housing and facilities household	254,899	2,518,912	2,633,067	2,674,153	2,668,515	2,610,708
- Goods and services	1,240,236	1,241,519	1,217,321	1,183,947	1,223,457	1,201,724
- Clothing, footwear, and coverings head	3,029,663	2,945,591	2,510,328	2,420,326	2,484,589	2,362,902
- Goods durable	5,043,062	4,961,556	4,599,545	3,672,396	3,799,997	3,501,672
- Taxes and insurance	3,011,481	3,376,434	3,921,353	3,955,016	4,002,873	402.267
- Requirements parties and ceremonies	188,766	1,895,883	1,212,129	1,230,738	1,802,075	1,887,732

Source: National Socio-Economic Survey, 2024

Table I. 15 Average Expenditure in Indonesia, 2024

Average Expenditure	Percentage
Food	47%
Housing, materials fuel, lighting, and water	28%
Various goods	7%
Education	4%
Health	2%
Clothes	2%
Feasts and ceremonies	2%
Tax	4%
Durable goods	4%

Source: Statistics Indonesia, 2024

Indicator 32: Ratio of the median free-market price of a dwelling unit and the median annual household income [2]

Table I. 16 GDP Per Capita Ratio and Economic Growth in Indonesia

Year	GDP per Capita (Rp million)	Economic growth (%)
2015	48.8	4.88
2016	60.3	5.03
2017	60.7	5.07
2018	61.7	5.17
2019	62.2	5.02
2020	56.9	-2.07
2021	62.2	3.7
2022	72.3	6.31
2023	75.5	6.05
2024	78.6	5.03

Source: Statistics Indonesia, 2024

Table I. 17 Growth Index Price Property Housing (y-on-y) 2024

Type of House	Percentage
Properties housing (residential)	2.76
House (housing)	2.97
1. Fenced cluster	3.07
2. Cluster no fenced	4.83
3. Non-cluster	1.03
Apartment	-1.03

Source: Statistics Indonesia, 2024

Table I. 18 Residential Property Price Index, 2020-2024

Type of House	2020	2021	2022	2023	2024
Properties Housing area	100.47	102.11	104.94	107.93	110.90
House	100.49	102.11	104.97	107.99	111.19
Apartment	100.02	102.27	104.23	106.61	105.52

Source: Statistics Indonesia, 2024

Table I. 19 Output of the One Million Houses Program 2015-2024

Year	House unit
2015	699,700
2016	805.169
2017	904,758
2018	1,132,621
2019	1,257,852
2020	965.217
2021	1,105,707
2022	1,117,491
2023	1,217,794
Mid-2024	666,432

Source: Statistics Indonesia, 2024

Indicator 38: Percentage of people living in unaffordable housing

Table I. 20 Percentage of Households Having Access to Housing

Province	Percentage of household living in uninhabitable house	Percentage of household living in owned house
Aceh	49	68
North Sumatra	48	62
West Sumatra	47	59
Riau	46	66
Jambi	47	73
South Sumatra	57	73
Bengkulu	58	74
Lampung	53	78
Bangka Belitung Islands	70	76
Riau Islands	49	62
Jakarta	72	42
West Java	54	71
Central Java	41	73
Yogyakarta	36	65
East Java	43	74
Banten	54	74
Bali	29	73
West Nusa Tenggara	51	80
East Nusa Tenggara	70	74
West Kalimantan	72	75
Central Kalimantan	52	64
South Kalimantan	44	71
East Kalimantan	28	58
North Kalimantan	42	60
North Sulawesi	41	62
Central Sulawesi	50	69
South Sulawesi	43	68
Southeast Sulawesi	40	71
Gorontalo	43	64
West Sulawesi	50	73
Maluku	56	64
North Maluku	53	68
West Papua	65	54
Southwest Papua	60	56
Papua	66	54
Papua Pegunungan (Highlands)	98	78

Province	Percentage of household living in uninhabitable house	Percentage of household living in owned house
South Papua	71	51
Central Papua	84	77

Source: Bappenas, 2024

Table I. 21 Output of the 2015-2024 Million Houses Program

Year	Output (Unit)
2015	699,700
2016	805,169
2017	904,758
2018	1132,621
2019	1257,852
2020	965,217
2021	1105,707
2022	1117,491
2023	1217,794
2024	666,4332

Source: Ministry of Public Works, 2024

Indicator 43: Percentage of government budget dedicated to housing subsidies

Table I. 22 FLPP Output

Year	Output (Unit)	Financing Output (Million Rupiah)
2010	7,959	242,657
2011	109,592	3,688,273
2012	64,785	2,587,257
2013	102,714	5,365,161
2014	76,057	4,655,626
2015	76,489	6,055,243
2016	58,469	5,627,539
2017	23,763	2,706,624
2018	57,939	5,898,207
2019	77,835	7,545,288
2020	109,253	11,234,194
2022	200,000	23,000,000
2023	229,000	26,300,000
2024	166,000	13,720,000

Source: Ministry of Public Works, 2024

1.1.2.2 Provide Access to Sustainable Housing Finance Options

Indicator 37: Mortgage debt relative to GDP

Data is described in the report.

1.1.2.3 Establish Security of Tenure

Indicator 2: Proportion of total adult population with secure tenure rights to land with (a) legally recognized documentation; and (b) who perceive their rights to land as secure, by sex and type of tenure

Table I. 23 Proportion of Households to Owned Houses Based on Gender, 2021-2023

Gender	Owned			Rent / Lease		
	2021	2022	2023	2021	2022	2023
Men	80.92	83.67	84.49	8.66	6.26	5.22
Women	82.04	86.15	86.81	8.66	5.28	3.93
Men + Women	81.08	83.99	84.79	8.66	6.13	5.05

Source: Statistics Indonesia, 2024

Table I. 24 Proportion of Household to Owned Houses Based on Area, 2021-2023

Residential Area	Owned			Rent / Lease		
	2021	2022	2023	2021	2022	2023
Urban	73.73	78.31	79.36	14.19	9.77	8.03
Rural	90.75	91.76	92.38	1.39	1.15	0.89
Urban + Rural	81.08	83.99	84.79	8.66	6.13	5.05

Source: Statistics Indonesia, 2024

Indicator 39: Proportion of cities with slum upgrading programmes

Data is described in the report.

Indicator 40: Number of cities having annual budget allocations addressing any of the 5 slum deprivations and inclusive public spaces in known slum area

Data is described in the report.

1.1.2.4 Establishment Slum Upgrading Program

Indicator 42: Total investment in housing (in both formal and informal sectors in the urban area), as a percentage of gross domestic product. [4]

Table I. 25 Percentage of Households Living in Slums by Province in Indonesia, 2021-2024

Province	2021	2022	2023	2024
Aceh	64.43	64.18	65.91	67.76
North Sumatra	69.48	67.26	70.95	73.47
West Sumatra	56.67	58.18	59.85	62.29
Riau	70.63	69.43	71.53	74.8
Jambi	62.54	60.85	64.12	66.21
South Sumatra	57.86	59.96	61.82	63.21
Bengkulu	51.36	54.98	54.74	56.52
Lampung	61.56	61.24	63.15	65.96
Bangka Belitung Islands	27.6	30.79	32.57	30.72
Riau Islands	50.23	46.69	54.21	57.19

Province	2021	2022	2023	2024
Jakarta	40	36.23	38.8	39
West Java	53.14	53.37	54.17	56.25
Central Java	66.47	67.02	68.85	71.76
In Yogyakarta	85.15	84.94	85.79	86.68
East Java	66.93	66.28	70.74	73.4
Banten	60.78	60.98	63.06	64.94
Bali	78.47	81.65	84.26	85.99
West Nusa Tenggara	62.9	62.3	66.31	67.74
East Nusa Tenggara	40.41	41.8	42.7	46.88
West Kalimantan	61.17	60.74	64.16	65.7
Central Kalimantan	55.34	54.07	56.49	59.92
South Kalimantan	57.5	55.96	57.5	60.6
East Kalimantan	70.7	73.18	75.82	76.77
North Kalimantan	65.65	67.21	71.43	69.65
North Sulawesi	69.5	69.57	72.39	74.21
Central Sulawesi	62.7	58.61	59.6	62.59
South Sulawesi	69.11	69.9	71.88	71.86
Southeast Sulawesi	70.45	72.8	74.01	76.67
Gorontalo	67.28	69.48	70.75	72.04
West Sulawesi	57.26	55.37	59.28	59.95
Maluku	60.69	60.66	63.61	66.13
North Maluku	63.85	65.42	68.17	68.05
West Papua	57.9	53.81	56.92	58.22
Southwest Papua	-	-	-	58.25
Papua	28.92	27,28	29.01	62.15
South Papua	-	-	-	38.34
Central Papua	-	-	-	26.79
Papua Pegunungan (Highlands)	-	-	-	4.44
Indonesia	60.9	60.66	63.15	65.25

Source: Statistics Indonesia, 2024

Table I. 26 Percentage of FLPP Output by Beneficiaries Occupation, 2024

Beneficiaries Occupation	Percentage
Civil Servant	4.23
Indonesian National Armed Forces/ Indonesian National Police	1.97
Private	78.08
Self-employed	12.34
Other	3.38
Total	100

Source: BP Tapera, 2024

Table I. 27 Implementing Regency/City of Thematic DAK PPKT / Integration, 2021-2024

No.	Province	Implementing Regency /City
1	Aceh	City of Banda Aceh, Langsa City
2	Riau	Pekanbaru City, Dumai City
3	West Sumatra	City of Pariaman
4	Banten	Tangerang City
5	Bangka Belitung	Bangka Regency and Central Bangka Regency
6	Central Java	Semarang Regency, Surakarta City, Kendal Regency, Pekalongan Regency, Pemalang Regency, Banjarnegara Regency, Pekalongan City, and Salatiga City
7	Yogyakarta	Bantul Regency and Yogyakarta City
8	East Java	Ponorogo Regency, Lumajang Regency, Jombang Regency, Gresik Regency, and Madiun City
9	South Kalimantan	City of Banjarbaru
10	East Kalimantan	Bontang Regency and Samarinda City
11	Central Sulawesi	Toli Toli Regency
12	South Sulawesi	Makassar City, Pare-Pare City, and Bantaeng Regency
13	Southeast Sulawesi	Bolang Mongondow Regency, Kendari City, and Kolaka Regency
14	Maluku	Southeast Maluku Regency, Ambon City, and Tusi City
15	North Maluku	North Halmahera City and Ternate City

Source: Ministry of Public Works, 2024

Table I. 28 Housing Development Amount, 2015-2023

Year	Flats	BSPS recipient house	Special Purpose House	Public House PSU
2015	10497	82245	6402	29956
2016	10587	97888	6402	29596
2017	18237	112753	12444	56840
2018	31488	201304	17481	74058
2019	43158	241687	22006	104194
2020	48792	233298	20960	119612
2021	49615	117019	25535	131186
2022	56639	185802	28846	156941
2023	60511	150231	33205	177698

Source: Ministry of Public Works, 2024

1.1.2.5 Integrate Housing into Urban Development Plans

Indicator 41: Percentage of cities that have integrated housing policies and regulations in their local development plans

Data is described in the report.

1.1.3 Access to Basic Services

1.1.3.1 Access to Safely Managed Drinking Water, Sanitation, and Waste Management

Indicator 5: Proportion of population using safely managed drinking water services

Table I. 29 Households with Proper Drinking Water Services in Indonesia, 2020-2024

No	Year	Households with Proper Drinking Water Services (%)
1	2020	90.21
2	2021	90.78
3	2022	91.05
4	2023	91.72
5	2024	92.64

Source: Statistics Indonesia, 2024

Indicator 6: Proportion of population using safely managed sanitation services

Table I. 30 Proportion of Population Using Sanitation Services by Provinces, 2020-2024

Province	2020	2021	2022	2023	2024
Aceh	12.77	14.44	16.91	17.19	17.31
North Sumatra	4.48	4.94	7.05	7.14	7.22
West Sumatra	7.09	6.69	8.45	8.57	8.65
Riau	7.5	6.52	14.51	14.64	14.74
Jambi	4.05	3.34	9.44	9.59	9.51
South Sumatra	4.62	4.98	4.33	4.54	4.79
Bengkulu	3.67	4.18	3.97	4.05	4.43
Lampung	2.66	2.59	3.21	3.72	3.75
Bangka Belitung Islands	6.74	5.29	6.78	6.12	6.51
Riau Islands	10.68	11.25	15.04	12.16	12.3
Jakarta	15.83	15.99	21.75	23.1	22.93
West Java	8.57	7.39	10.29	10.49	10.54
Central Java	10.51	9.08	9.9	10.83	10.84
DI Yogyakarta	13.63	13.74	16.37	16.23	16.36
East Java	7.22	8.04	10.42	10.44	10.45
Banten	10.43	10.05	15.25	15.39	15.41
Bali	13.76	11.77	15.38	15.42	15.52
West Nusa Tenggara	4.91	4.4	6.1	6.21	6.84
East Nusa Tenggara	0.6	0.9	2.35	2.5	2.44
West Kalimantan	3.13	3.3	3.31	3.38	3.52
Central Kalimantan	5.26	4.18	13.96	11.16	11.07

Province	2020	2021	2022	2023	2024
South Kalimantan	2.83	2.84	12.82	8.7	8.15
East Kalimantan	5.97	5.27	9.06	9.14	9.18
North Kalimantan	2.56	2.39	5.68	5.84	5.79
North Sulawesi	5.41	5.53	6.33	6.22	6.4
Central Sulawesi	3.08	2.8	6.87	7.16	7.08
South Sulawesi	4.74	3.97	12.92	12.83	10.88
Southeast Sulawesi	1.12	1.72	2.03	1.93	2.22
Gorontalo	2.98	2.36	2.94	4.14	4.28
West Sulawesi	2.39	1.15	1.19	2.31	2.39
Maluku	2.44	2.33	5.01	4.39	4.13
North Maluku	1.68	1.27	1.46	1.63	2.76
West Papua	2.84	2.84	4.46	4.63	2.55
Southwest Papua	-	-	-	-	8.15
Papua	2.32	2.13	6.47	1.82	5.02
South Papua	-	-	-	-	3.06
Central Papua	-	-	-	-	1.71
Papua Pegunungan (Highlands)	-	-	-	-	0.64
Indonesia	**7.64**	**7.25**	**10.16**	**10.21**	**10.25**

Source: Statistics Indonesia, 2024

Indicator 18: Proportion of municipal solid waste collected and managed in controlled facilities out of total Municipal Solid Waste generated by cities

Table I. 31 Proportion of municipal solid waste collected and managed in controlled facilities out of total Municipal Solid Waste generated, 2024 (1)

Province	Regency /City	Annual Waste Generation (Tons/Year) (A)	Annual Waste Reduction (Tons/Year) (B)	% Waste Reduction (B/A)	Annual Waste Handling (Tons/Year) (C)
Aceh	South Aceh Regency	34,527.10	7.67	0.02	12,775.00
	Southeast Aceh Regency	54,634.66	25.55	0.05	8,413.25
	East Aceh Regency	66,389.56	1,066.26	1.61	28,477.30
	Central Aceh Regency	41,273.39	1,095.00	2.65	22,995.00
	West Aceh Regency	37,432.21	1,537.49	4.11	28,415.25
	Aceh Besar Regency	54,434.93	1,322.81	2.43	36,317.50
	Pidie Regency	65,420.41			14,783.50
	North Aceh Regency	112,171.80	1,225.32	1.09	18,067.50
	Simeulue Regency	16,673.93	767.7	4.6	6,577.30
	Aceh Singkil Regency	20,039.08	797.53	3.98	2,555.00
	Bireuen Regency	59,046.49	10,113.35	17.13	27,615.90
	Southwest Aceh Regency	29,210.59	2,141.46	7.33	6,935.00
	Gayo Lues Regency	15,308.98	458.07	2.99	10,950.00
	Aceh Jaya Regency	18,373.01	322.66	1.76	11,639.85
	Nagan Raya Regency	25,763.31	4,479.37	17.39	12,942.90
	Aceh Tamiang Regency	45,127.58	1,978.09	4.38	9,409.70

Province	Regency /City	Annual Waste Generation (Tons/Year) (A)	Annual Waste Reduction (Tons/Year) (B)	% Waste Reduction (B/A)	Annual Waste Handling (Tons/Year) (C)
	Bener Meriah Regency	23,371.68	18.61	0.08	14,600.00
	Pidie Jaya Regency	30,143.46	0	0	5,840.00
	Banda Aceh City	94,679.61	15,501.03	16.37	76,476.51
	Sabang City	6,354.94	0	0	4,657.40
	Lhokseumawe City	36,509.25	401.5	1.1	28,105.00
	Langsa City	35,538.23	3,244.97	9.13	25,452.55
	Subulussalam City	17,843.03	91.25	0.51	12,775.00
North Sumatra	Nias Regency	21,446.67	3.65	0.02	
	Langkat Regency	194,674.76	1,272.02	0.65	32,587.56
	Simalungun Regency	189,055.40	573.05	0.3	49,289.60
	Pakpak Bharat Regency	8,055.11	56.37	0.7	3,387.20
	Medan City	632,149.41	95,451.46	15.1	506,479.12
West Sumatra	South Coast Regency	57,526.37	10,681.27	18.57	13,440.76
	Solok Regency	59,233.95	7,925.63	13.38	8,526.40
	Tanah Datar Regency	47,943.05	9,799.76	20.44	17,255.01
	Padang Pariaman Regency	83,798.34	1,172.32	1.4	19,031.10
	Agam Regency	78,067.22	11,501.06	14.73	24,633.85
	Fifty Cities Regency	58,558.56	10,873.94	18.57	3,650.00
	South Solok Regency	27,964.84	3,973.57	14.21	4,354.45
	Padang City	240,920.66	52,792.47	21.91	179,813.60
	Solok City	21,438.24	2,394.02	11.17	18,958.10
	Sawahlunto City	6,988.44	1,829.74	26.18	5,102.70
	Padang Panjang City	18,317.45	3,047.41	16.64	15,142.08
	Bukittinggi City	48,542.31	6,448.91	13.29	38,971.05
	Payakumbuh City	34,285.94	5,277.89	15.39	27,188.85
	Pariaman City	14,845.28	1,599.18	10.77	11,169.00
Riau	Bengkalis Regency	95,314.82	9,753.48	10.23	64,718.86
	Rokan Hulu Regency	103,202.06	7,203.04	6.98	22,841.70
	Siak Regency	70,104.67	10,130.89	14.45	30,035.85
	Kuantan Singingi Regency	52,644.83	7,749.88	14.72	13,118.28
	Pekanbaru City	369,019.82	11,970.19	3.24	233,377.36
	Dumai City	62,696.60	7,262.13	11.58	42,705.00
Jambi	Tebo Regency	52,990.12	1,272.26	2.4	11,621.60
	Jambi City	161,897.58	20,245.46	12.51	119,721.46
	Full River City	18,563.17	1,677.01	9.03	13,140.00
South Sumatra	Ogan Komering Ulu Regency	55,478.83	12,479.45	22.49	20,805.00
	Muara Enim Regency	85,838.07	19,353.54	22.55	30,112.50
	Lahat Regency	99,542.14	9,131.12	9.17	28,656.78
	Musi Banyuasin Regency	103,264.34	24,413.83	23.64	21,005.75
	Ogan Komering Ulu Regency	103,250.47	2,611.82	2.53	47,033.90
	Ogan Ilir Regency	64,162.47	15.32	0.02	23,827.20
	Penukal District Father Lematang Ilir	38,730.15	945.26	2.44	13,651.00
	North Musi Rawas Regency	28,398.02	98.55	0.35	17,885.00
	Pagar Alam City	26,980.07	112.38	0.42	16,277.54
	Prabumulih City	37,104.08	7,813.15	21.06	23,907.50
Bengkulu	North Bengkulu Regency	67,563.03	5,867.76	8.68	5,475.00
	Seluma Regency	39,238.60			1,914.06
	Lebong Regency	16,665.32	576.07	3.46	4,380.00
	Central Bengkulu Regency	22,107.87	327.59	1.48	3,703.92
	Bengkulu City	99,645.77	8,907.88	8.94	85,453.80

Province	Regency /City	Annual Waste Generation (Tons/Year) (A)	Annual Waste Reduction (Tons/Year) (B)	% Waste Reduction (B/A)	Annual Waste Handling (Tons/Year) (C)
Lampung	North Lampung Regency	92,728.83	83.67	0.09	36,390.50
	Tulang Bawang Regency	63,301.22	1,095.12	1.73	4,336.20
	Tanggamus Regency	136,404.50	4,367.97	3.2	10,585.00
	East Lampung Regency	208,521.22	81.67	0.04	1,153.40
	Way Kanan Regency	71,506.86	3,113.89	4.35	6,455.43
	Pesawaran Regency	63,131.88	3,527.14	5.59	13,578.00
	Pringsewu Regency	59,628.59	7,081.45	11.88	16,215.35
	West Coast Regency	25,360.20	1.1	0	2,211.66
Bangka Belitung Islands	Bangka Regency	50,786.39	3,149.77	6.2	26,660.65
	Central Bangka Regency	41,510.84	7,506.74	18.08	23,647.23
	West Bangka Regency	30,888.64	1,308.51	4.24	6,570.00
	East Belitung Regency	20,410.22	26.52	0.13	9,236.48
Riau islands	Bintan Regency	20,858.45	2,077.81	9.96	14,983.25
	Karimun Regency	70,684.84	8,876.29	12.56	32,120.00
	Islands Anambas Regency	5,375.79	333.9	6.21	247.5
	Tanjungpinang City	55,715.79	12,241.04	21.97	35,518.51
Jakarta	City Administration Seribu Islands	6,739.09	1,888.49	28.02	4,826.18
	City Administration Central Jakarta	312,221.09	87,526.81	28.03	223,354.46
	City Administration North Jakarta	509,694.50	142,880.45	28.03	365,484.31
	City Administration West Jakarta	757,857.05	212,637.57	28.06	544,174.86
	City Administration South Jakarta	725,690.82	203,289.04	28.01	522,242.02
	City Administration East Jakarta	859,045.05	242,094.77	28.18	615,025.00
West Java	Bogor Regency	1,026,931.33	30,095.69	2.93	287,285.91
	Cianjur Regency	462,637.87	1,792.52	0.39	120,125.14
	Bandung Regency	478,956.72	160,023.22	33.41	140,885.62
	Garut Regency	418,262.61	52,532.82	12.56	89,060.00
	Tasikmalaya Regency	254,875.20	102.33	0.04	18,250.00
	Ciamis Regency	182,871.42	72,804.74	39.81	77,462.49
	Cirebon Regency	465,242.92	12,041.64	2.59	178,890.15
	Sumedang Regency	176,030.01	609.22	0.35	25,079.15
	Indramayu Regency	414,835.78	51,379.51	12.39	208,214.25
	Subang Regency	242,820.78	0	0	61,502.50
	Purwakarta Regency	152,672.78	2,558.65	1.68	25,199.60
	Karawang Regency	389,444.24	2,909.70	0.75	140,072.32
	Bekasi Regency	614,462.32	2,521.87	0.41	330,711.32
	Bogor City	284,631.60	69,312.71	24.35	272,672.69
	Bandung	546,151.49	98,314.10	18	369,161.83
	Cirebon City	78,969.28	8,590.64	10.88	58,008.18
	Cimahi City	84,666.28	19,105.93	22.57	62,050.00
	Tasikmalaya City	121,705.09	19,712.36	16.2	84,802.51
Central Java	Banyumas Regency	200,228.74	128,420.27	64.14	67,798.75
	Banjarnegara Regency	155,978.66	339.41	0.22	20,436.35
	Wonosobo Regency	132,810.94	20,284.37	15.27	47,450.00
	Magelang Regency	243,075.58	66,659.93	27.42	86,565.78
	Boyolali Regency	108,784.91	25,276.38	23.24	38,719.57
	Sukoharjo Regency	133,436.70	21,633.79	16.21	85,074.20
	Sragen Regency	218,449.22	24,239.14	11.1	79,737.17
	Rembang Regency	96,766.90	14,046.34	14.52	23,089.97
	Pati Regency	248,083.93	36,386.54	14.67	68,985.00

Province	Regency /City	Annual Waste Generation (Tons/Year) (A)	Annual Waste Reduction (Tons/Year) (B)	% Waste Reduction (B/A)	Annual Waste Handling (Tons/Year) (C)
	Jepara Regency	153,000.41	19,126.41	12.5	63,752.98
	Demak Regency	228,667.03	163.97	0.07	146,205.17
	Semarang Regency	196,718.94	18,795.68	9.55	88,695.00
	Kendal Regency	158,286.48	1,104.03	0.7	72,523.71
	Brebes Regency	372,861.55	6,346.45	1.7	70,678.60
	Magelang City	29,515.10	4,806.54	16.29	23,136.74
	Surakarta City	153,360.91	29,460.64	19.21	121,523.76
	Salatiga City	42,629.82	8,847.27	20.75	33,046.01
	Semarang City	434,243.97	120,152.30	27.67	309,809.86
Special Region of Yogyakarta	Kulon Progo Regency	80,033.90	24,868.05	31.07	11,340.55
	Bantul Regency	158,430.04	29,158.61	18.4	20,657.50
	Gunungkidul Regency	134,318.32	32,614.76	24.28	21,068.16
	Sleman Regency	219,653.64	30,482.72	13.88	22,331.43
	Yogyakarta City	109,704.11	24,088.86	21.96	66,283.55
East Java	Pacitan Regency	105,691.50	18,205.01	17.22	13,064.08
	Trenggalek Regency	110,391.91	15,389.05	13.94	36,865.00
	Tulungagung Regency	164,395.27	19,229.64	11.7	27,763.09
	Jember Regency	304,964.95	2,417.65	0.79	107,442.86
	Banyuwangi Regency	306,270.96	92,581.50	30.23	84,906.30
	Bondowoso Regency	115,049.02	601.54	0.52	24,893.00
	Situbondo Regency	93,669.45	8,909.26	9.51	56,830.13
	Sidoarjo Regency	313,401.68	16,649.64	5.31	184,334.53
	Mojokerto Regency	164,117.17	46,169.12	28.13	36,561.29
	Jombang Regency	193,583.44	28,590.63	14.77	56,217.30
	Madiun Regency	107,927.58	29,640.23	27.46	17,437.88
	Magetan Regency	100,976.23	54,314.12	53.79	19,515.35
	Ngawi Regency	135,297.67	21,803.63	16.12	29,519.37
	Tuban Regency	192,907.81	45,584.15	23.63	70,804.53
	Lamongan Regency	202,331.91	29,506.06	14.58	75,737.50
	Pamekasan Regency	102,470.10	14,719.73	14.36	48,133.43
	Sumenep Regency	133,059.91	20,528.04	15.43	14,006.87
	Blitar City	27,988.20	4,390.08	15.69	22,531.63
	Malang City	284,095.41	76,714.26	27	202,743.61
	Probolinggo City	44,357.36	7,478.00	16.86	24,528.00
	Pasuruan City	54,335.88	10,969.04	20.19	36,633.27
	Madiun City	45,287.39	10,288.64	22.72	34,545.43
	Surabaya City	659,033.63	35,361.68	5.37	617,454.51
	Stone City	52,063.84	11,452.05	22	36,507.30
Banten	Lebak Regency	219,931.19	6,920.43	3.15	47,450.00
	Serang Regency	438,206.52	24.12	0.01	13,818.26
	Tangerang City	798,405.91	222,504.13	27.87	573,415.00
	Cilegon City	104,729.66	2,101.19	2.01	81,395.00
	Serang City	225,318.46	21,358.26	9.48	135,707.00
	South Tangerang City	373,267.45	96,016.05	25.72	265,428.00
Bali	Jembrana Regency	59,962.20	13,844.48	23.09	33,981.50
	Badung Regency	199,810.15	49,141.35	24.59	87,670.08
	Gianyar Regency	205,137.00	21,161.69	10.32	128,355.90
	Klungkung Regency	40,654.25	10,186.86	25.06	29,887.29
	Bangli Regency	41,557.88	9,204.62	22.15	30,843.23
	Karangasem Regency	102,643.48	4,975.21	4.85	2,046.45
	Buleleng Regency	150,880.05	23,497.28	15.57	60,955.00
	Denpasar City	366,806.75	58,926.93	16.06	294,142.66
West Nusa Tenggara	West Lombok Regency	110,031.59	1,529.72	1.39	25,206.90
	Central Lombok Regency	159,368.34	29,888.11	18.75	27,557.50
	East Lombok Regency	203,141.77	26,198.91	12.9	39,679.15
	Sumbawa Regency	91,615.00	1,576.33	1.72	48,545.00
	West Sumbawa Regency	22,421.95	4,968.72	22.16	5,078.98

Province	Regency /City	Annual Waste Generation (Tons/Year) (A)	Annual Waste Reduction (Tons/Year) (B)	% Waste Reduction (B/A)	Annual Waste Handling (Tons/Year) (C)
	North Lombok Regency	39,708.06	6,007.07	15.13	21,933.69
East Nusa Tenggara	Kupang Regency	56,970.66	53.94	0.09	
	North Central Timor Regency	39,606.44	0	0	1,927.20
	East Flores Regency	75,221.76	299.09	0.4	6,504.30
	Ngada Regency	43,825.66	60.4	0.14	7,847.50
	Manggarai Regency	54,522.82			8,847.05
	East Sumba Regency	21,792.78	0	0	16,754.60
	Lembata Regency	25,975.96	17.19	0.07	1,887.05
	Rote Ndao Regency	49,291.78	1,037.70	2.11	2,957.05
	West Manggarai Regency	51,637.10	1,400.21	2.71	8,030.00
	Nagekeo Regency	24,104.31	705.52	2.93	
	Central Sumba Regency	13,210.37	22.48	0.17	3,613.50
	Southwest Sumba Regency	58,778.32	2.56	0	
	Malaka Regency	27,885.12	0	0	
	Kupang City	85,160.34	6,909.85	8.11	60,257.40
West Kalimantan	Mempawah Regency	30,500.63	38.06	0.12	9,345.82
	Sanggau Regency	92,630.25	34.58	0.04	20,654.77
	Ketapang Regency	110,297.78	46.34	0.04	15,596.45
	Kapuas Hulu Regency	50,171.99	423.04	0.84	9,387.80
	Bengkayang Regency	43,650.93	45.74	0.1	6,504.30
	Landak Regency	59,797.95	284.7	0.48	8,705.25
	Melawi Regency	31,145.01	2,054.48	6.6	5,299.80
	North Kayong Regency	23,925.75	778.09	3.25	8,455.59
	Kubu Raya Regency	162,500.56	34.81	0.02	26,280.00
	Pontianak City	150,366.28	37,676.92	25.06	112,431.50
	Singkawang City	35,483.20	3,949.79	11.13	30,816.29
Central Kalimantan	West Kotawaringin Regency	51,052.55	9,735.77	19.07	33,365.85
	East Kotawaringin Regency	87,386.06	104.76	0.12	26,280.00
	Kapuas Regency	77,596.45	1,142.37	1.47	9,201.53
	South Barito Regency	24,813.80	1,761.78	7.1	7,011.65
	North Barito Regency	23,833.48	697.15	2.93	14,149.96
	Seruyan Regency	31,262.98	18.26	0.06	5,489.60
	Sukamara Regency	9,406.93	1,907.12	20.27	584
	Gunung Mas Regency	35,653.47	0	0	3,577.00
	Pulang Pisau Regency	25,221.50	1,070.46	4.24	1,547.23
	Murung Raya Regency	21,512.55	3,781.77	17.58	4,599.00
	East Barito Regency	17,127.55	321.33	1.88	4,843.55
	Palangkaraya City	58,491.25	16,261.75	27.8	41,573.50
South Kalimantan	Tanah Laut Regency	53,161.08	5,559.41	10.46	13,207.71
	Kotabaru Regency	66,175.43	2,411.76	3.64	19,670.04
	Banjar Regency	133,381.04	24,368.64	18.27	71,266.25
	Barito Kuala Regency	36,602.13	9,109.03	24.89	18,461.70
	Tapin Regency	28,892.38	5,098.42	17.65	17,809.81
	South Hulu Sungai Regency	35,624.29	3,652.76	10.25	22,726.73
	Central Hulu Sungai Regency	39,180.56	9,118.98	23.27	24,468.31
	North Hulu Sungai Regency	34,609.15	14.66	0.04	17,014.80
	Tabalong Regency	43,092.79	7,223.40	16.76	31,871.80
	Tanah Bumbu Regency	63,206.32	10,786.53	17.07	48,070.14
	Balangan Regency	21,307.04	4,130.13	19.38	15,266.13
	Banjarmasin City	173,647.25	37,910.53	21.83	132,237.25
	Banjarbaru City	69,690.95	19,471.52	27.94	50,193.70

Province	Regency /City	Annual Waste Generation (Tons/Year) (A)	Annual Waste Reduction (Tons/Year) (B)	% Waste Reduction (B/A)	Annual Waste Handling (Tons/Year) (C)
East Kalimantan	Paser Regency	44,299.90	4,396.04	9.92	27,528.26
	Kutai Kartanegara Regency	135,200.79	21,197.61	15.68	78,337.36
	Berau Regency	52,732.10	9,202.09	17.45	33,921.88
	West Kutai Regency	26,297.37	24.71	0.09	10,831.23
	East Kutai Regency	79,082.18	7,390.65	9.35	39,226.37
	North Penajam Paser Regency	36,427.00	5,190.79	14.25	18,551.64
	Mahakam Ulu Regency	6,744.85	91.25	1.35	2,482.00
	Balikpapan City	195,151.92	48,821.26	25.02	141,064.90
	Samarinda City	220,209.83	18,145.92	8.24	87,820.06
	Bontang City	38,962.93	11,127.39	28.56	27,710.07
North Kalimantan	Bulungan Regency	30,681.17	8.03	0.03	29,045.97
	Nunukan Regency	16,703.80	2,812.79	16.84	7,316.02
	Tana Tidung Regency	4,182.61	29.71	0.71	2,839.01
North Sulawesi	Bolaang Mongondow Regency	46,496.44	18.69	0.04	2,920.00
	Minahasa Regency	63,922.63	17,595.18	27.53	41,763.30
	Islands Sangihe Regency	20,529.64	392.76	1.91	9,084.85
	Talaud Islands Regency	14,694.17	0.24	0	919.07
	South Minahasa Regency	35,710.14	1,255.70	3.52	11,869.80
	North Minahasa Regency	43,976.48	1,932.17	4.39	23,849.28
	Southeast Minahasa Regency	17,418.53	380.08	2.18	4,641.70
	North Bolaang Mongondow Regency	12,572.21	32.3	0.26	6,626.58
	Siau Tagulandang Biaro Regency	10,640.92	145.73	1.37	3,358.00
	East Bolaang Mongondow Regency	13,529.97	500.05	3.7	
	South Bolaang Mongondow Regency	11,004.60	164.25	1.49	4,818.00
	Manado City	106,288.37	7,639.21	7.19	89,790.00
	Bitung City	58,055.22	1,655.23	2.85	41,245.00
	Tomohon City	18,810.64	577.72	3.07	13,505.00
	Kotamobagu City	31,626.81	2,542.70	8.04	23,095.37
Central Sulawesi	Morowali Regency	31,107.13	754.65	2.43	2,663.32
	Banggai Island Regency	22,207.33	1,049.78	4.73	3,084.25
	Parigi Moutong Regency	83,415.46	4,380.14	5.25	3,452.17
	Banggai Laut Regency	14,124.59	219	1.55	4,215.75
	North Morowali Regency	27,490.71	26.16	0.1	1,748.35
	Palu City	71,633.08	6,923.07	9.66	53,538.20
South Sulawesi	Islands Selayar Regency	20,746.60	205.81	0.99	4,491.98
	Bulukumba Regency	67,943.00	5,627.09	8.28	37,695.10
	Bantaeng Regency	30,896.96	8,958.63	29	10,931.75
	Bone Regency	149,743.08	22,183.27	14.81	86,946.65
	Maros Regency	56,827.14	5,895.25	10.37	27,484.50
	Pangkajene Regency and the Islands	52,821.49	4,532.82	8.58	20,367.00
	Barru Regency	28,526.21	1,187.51	4.16	12,200.34
	Soppeng Regency	35,179.43	4,743.75	13.48	22,808.85
	Sidenreng Rappang Regency	48,288.33	8,251.24	17.09	26,400.92

Province	Regency /City	Annual Waste Generation (Tons/Year) (A)	Annual Waste Reduction (Tons/Year) (B)	% Waste Reduction (B/A)	Annual Waste Handling (Tons/Year) (C)
	Pinrang Regency	68,522.47	10,008.17	14.61	29,554.05
	Tana Toraja Regency	47,131.90	35.7	0.08	14,829.25
	North Luwu Regency	60,358.96	90	0.15	7,424.10
	East Luwu Regency	45,045.38	6,327.58	14.05	14,681.03
	Makassar City	387,470.48	1,290.13	0.33	281,632.99
	Parepare City	29,535.80	4,527.41	15.33	21,589.75
	Palopo City	32,398.50	2,640.97	8.15	22,721.25
Southeast Sulawesi	Kolaka Regency	44,297.57	2,034.88	4.59	22,120.83
	Muna Regency	34,770.63	974.05	2.8	8,491.72
	North Konawe Regency	11,299.09	0	0	1,541.76
	East Kolaka Regency	20,651.85	1,116.76	5.41	1,460.00
	South Buton Regency	8,527.64	0	0	1,505.63
	Kendari City	93,375.91	86.88	0.09	91,426.66
	Bau Bau City	33,215.00	5,907.89	17.79	26,645.00
Gorontalo	Bone Bolango Regency	20,753.66	1,857.81	8.95	5,189.90
	Gorontalo City	52,073.97	11,831.70	22.72	36,682.50
West Sulawesi	Pasangkayu Regency	29,815.54	104.39	0.35	4,403.36
	Mamuju Regency	53,362.09	449.41	0.84	4,901.95
	Majene Regency	26,478.56	599.02	2.26	8,250.82
Maluku	Buru Regency	23,572.50	732.19	3.11	3,974.85
	West Seram Regency	31,738.79	445.49	1.4	1,357.80
	Ambon City	90,460.29	2,437.80	2.69	61,393.00
	Tual City	23,315.65	278.24	1.19	14,235.00
North Maluku	Central Halmahera Regency	15,549.00	0	0	11,183.78
	South Halmahera Regency	37,286.06	0	0	20,841.85
	Sula Islands Regency	24,933.79	0	0	8,672.40
	East Halmahera Regency	19,652.42	0	0	15,727.16
	Morotai Island Regency	11,951.56	0	0	3,819.47
	Taliabu Island Regency	11,915.61	0	0	843.15
Papua	Islands Yap Regency	16,951.62			13,008.60
	Biak Numfor Regency	21,664.65	3,750.73	17.31	17,282.75
	Sarmi Regency	6,205.00	0	0	2,168.10
West Papua	Manokwari Regency	76,650.00	1,095.00	1.43	25,550.00
	Fak Fak Regency	13,164.97	69.75	0.53	5,781.60
	Teluk Wondama Regency	6,501.96	331.79	5.1	2,890.80
	Kaimana Regency	9,731.63	112.26	1.15	4,456.65
South Papua	Boven Digoel Regency	9,518.18	102.2	1.07	2,920.00
	Asmat Regency	17,305.38	181.72	1.05	3,467.50
Central Papua	Nabire Regency	25,466.34	34.97	0.14	11,117.90
	Mimika Regency	57,125.42	862.86	1.51	29,742.90
	Dogiyai Regency	17,201.43	0	0	
Papua Pegunungan (Highlands)	Jayawijaya Regency	41,244.56	54.75	0.13	10,840.50
Southwest Papua	Sorong Regency	18,974.60	1,990.00	10.49	5,887.45
	South Sorong Regency	7,738.00	0	0	1,277.50
	Raja Ampat Regency	10,001.00	55.77	0.56	2,649.90
Total		**33,777,209**	**4,443,771**		**15,781,481**

Source: MoEF, 2024
**data for 311 regency/cities*

Table I. 32 Proportion of municipal solid waste collected and managed in controlled facilities out of total Municipal Solid Waste generated, 2024 (2)

Province	Regency /City	% Trash Handling (C/A)	Annual Junk (Tons/Year) (B + C)	% Garbage Managed (B+C)/A
Aceh	South Aceh Regency	37	12,782.67	37.02
	Southeast Aceh Regency	15.4	8,438.80	15.45
	East Aceh Regency	42.89	29,543.56	44.5
	Central Aceh Regency	55.71	24,090.00	58.37
	West Aceh Regency	75.91	29,952.74	80.02
	Aceh Besar Regency	66.72	37,640.31	69.15
	Pidie Regency	22.6	14,783.50	22.6
	North Aceh Regency	16.11	19,292.82	17.2
	Simeulue Regency	39.45	7,345.00	44.05
	Aceh Singkil Regency	12.75	3,352.53	16.73
	Bireuen Regency	46.77	37,729.25	63.9
	Southwest Aceh Regency	23.74	9,076.46	31.07
	Gayo Lues Regency	71.53	11,408.07	74.52
	Aceh Jaya Regency	63.35	11,962.51	65.11
	Nagan Raya Regency	50.24	17,422.27	67.62
	Aceh Tamiang Regency	20.85	11,387.79	25.23
	Bener Meriah Regency	62.47	14,618.61	62.55
	Pidie Jaya Regency	19.37	5,840.00	19.37
	City of Banda Aceh	80.77	91,977.55	97.15
	City of Sabang	73.29	4,657.40	73.29
	Lhokseumawe City	76.98	28,506.50	78.08
	City of Langsa	71.62	28,697.51	80.75
	Subulussalam City	71.6	12,866.25	72.11
North Sumatra	Nias Regency		3.65	0.02
	Langkat Regency	16.74	33,859.58	17.39
	Simalungun Regency	26.07	49,862.65	26.37
	Pakpak Bharat Regency	42.05	3,443.57	42.75
	Medan City	80.12	601,930.58	95.22
West Sumatra	South Coast District	23.36	24,122.03	41.93
	Solok Regency	14.39	16,452.03	27.77
	Tanah Datar District	35.99	27,054.77	56.43
	Padang Pariaman Regency	22.71	20,203.42	24.11
	Agam Regency	31.55	36,134.91	46.29
	Fifty Cities District	6.23	14,523.94	24.8
	South Solok Regency	15.57	8,328.02	29.78
	Padang City	74.64	232,606.07	96.55
	Solok City	88.43	21,352.12	99.6
	City of Sawahlunto	73.02	6,932.44	99.2
	Padang Panjang City	82.66	18,189.49	99.3
	City of Bukittinggi	80.28	45,419.96	93.57
	City of Payakumbuh	79.3	32,466.74	94.69
	City of Pariaman	75.24	12,768.18	86.01
Riau	Bengkalis Regency	67.9	74,472.34	78.13
	Rokan Hulu Regency	22.13	30,044.74	29.11
	Siak Regency	42.84	40,166.74	57.3
	Kuantan Singingi Regency	24.92	20,868.17	39.64
	City of Pekanbaru	63.24	245,347.54	66.49
	Dumai City	68.11	49,967.13	79.7
Jambi	Tebo Regency	21.93	12,893.86	24.33
	Jambi City	73.95	139,966.92	86.45
	Full River City	70.79	14,817.01	79.82
South Sumatra	Ogan Komering Ulu Regency	37.5	33,284.45	59.99
	Muara Enim Regency	35.08	49,466.04	57.63
	Lahat Regency	28.79	37,787.90	37.96
	Musi Banyuasin Regency	20.34	45,419.58	43.98
	Ogan Komering Ulu Regency	45.55	49,645.72	48.08

Province	Regency /City	% Trash Handling (C/A)	Annual Junk (Tons/Year) (B + C)	% Garbage Managed (B+C)/A
	Ogan Ilir Regency	37.14	23,842.52	37.16
	Penukal District Father Lematang Ilir	35.25	14,596.26	37.69
	North Musi Rawas Regency	62.98	17,983.55	63.33
	City of Pagar Alam	60.33	16,389.92	60.75
	City of Prabumulih	64.43	31,720.65	85.49
Bengkulu	North Bengkulu Regency	8.1	11,342.76	16.79
	Seluma District	4.88	1,914.06	4.88
	Lebong Regency	26.28	4,956.07	29.74
	Central Bengkulu Regency	16.75	4,031.51	18.24
	City of Bengkulu	85.76	94,361.68	94.7
Lampung	North Lampung Regency	39.24	36,474.17	39.33
	Tulang Bawang Regency	6.85	5,431.32	8.58
	Tanggamus Regency	7.76	14,952.97	10.96
	East Lampung Regency	0.55	1,235.07	0.59
	Way Kanan Regency	9.03	9,569.32	13.38
	Pesawaran Regency	21.51	17,105.14	27.09
	Pringsewu Regency	27.19	23,296.80	39.07
	West Coast District	8.72	2,212.75	8.73
Bangka Belitung Islands	Bangka Regency	52.5	29,810.43	58.7
	Central Bangka Regency	56.97	31,153.97	75.05
	West Bangka Regency	21.27	7,878.51	25.51
	East Belitung Regency	45.25	9,263.00	45.38
Riau islands	Bintan Regency	71.83	17,061.06	81.79
	Karimun Regency	45.44	40,996.29	58
	Kab. Islands Anambas	4.6	581.4	10.82
	City of Tanjungpinang	63.75	47,759.56	85.72
Jakarta	Seribu Islands District Administration	71.61	6,714.67	99.64
	City Administration Central Jakarta	71.54	310,881.27	99.57
	City of North Jakarta Adm.	71.71	508,364.77	99.74
	City Administration West Jakarta	71.8	756,812.43	99.86
	City of South Jakarta Adm.	71.96	725,531.06	99.98
	City of East Jakarta Adm.	71.59	857,119.77	99.78
West Java	Bogor Regency	27.98	317,381.59	30.91
	Cianjur Regency	25.97	121,917.66	26.35
	Bandung Regency	29.42	300,908.84	62.83
	Garut Regency	21.29	141,592.82	33.85
	Tasikmalaya Regency	7.16	18,352.33	7.2
	Ciamis Regency	42.36	150,267.23	82.17
	Cirebon Regency	38.45	190,931.80	41.04
	Sumedang Regency	14.25	25,688.36	14.59
	Indramayu Regency	50.19	259,593.77	62.58
	Subang Regency	25.33	61,502.50	25.33
	Purwakarta Regency	16.51	27,758.25	18.18
	Karawang Regency	35.97	142,982.02	36.71
	Bekasi Regency	53.82	333,233.19	54.23
	Bogor City	95.8	341,985.41	120.15
	Bandung	67.59	467,475.93	85.59
	Cirebon City	73.46	66,598.81	84.34
	City of Cimahi	73.29	81,155.93	95.85
	City of Tasikmalaya	69.68	104,514.87	85.88
Central Java	Banyumas Regency	33.86	196,219.02	98
	Banjarnegara Regency	13.1	20,775.76	13.32
	Wonosobo Regency	35.73	67,734.37	51
	Magelang Regency	35.61	153,225.71	63.04
	Boyolali Regency	35.59	63,995.94	58.83
	Sukoharjo Regency	63.76	106,707.99	79.97
	Sragen Regency	36.5	103,976.31	47.6

Province	Regency /City	% Trash Handling (C/A)	Annual Junk (Tons/Year) (B + C)	% Garbage Managed (B+C)/A
	Rembang Regency	23.86	37,136.32	38.38
	Pati Regency	27.81	105,371.54	42.47
	Jepara Regency	41.67	82,879.39	54.17
	Demak Regency	63.94	146,369.14	64.01
	Semarang Regency	45.09	107,490.68	54.64
	Kendal Regency	45.82	73,627.74	46.52
	Brebes Regency	18.96	77,025.05	20.66
	City of Magelang	78.39	27,943.28	94.67
	Surakarta City	79.24	150,984.39	98.45
	City of Salatiga	77.52	41,893.28	98.27
	Semarang City	71.34	429,962.16	99.01
Special Region of Yogyakarta	Kulon Progo Regency	14.17	36,208.60	45.24
	Bantul Regency	13.04	49,816.11	31.44
	Gunungkidul Regency	15.69	53,682.92	39.97
	Sleman Regency	10.17	52,814.15	24.04
	Yogyakarta City	60.42	90,372.40	82.38
East Java	Pacitan Regency	12.36	31,269.09	29.59
	Trenggalek Regency	33.39	52,254.05	47.34
	Tulungagung Regency	16.89	46,992.72	28.59
	Jember Regency	35.23	109,860.51	36.02
	Banyuwangi Regency	27.72	177,487.80	57.95
	Bondowoso Regency	21.64	25,494.54	22.16
	Situbondo Regency	60.67	65,739.40	70.18
	Sidoarjo Regency	58.82	200,984.17	64.13
	Mojokerto Regency	22.28	82,730.41	50.41
	Jombang Regency	29.04	84,807.93	43.81
	Madiun Regency	16.16	47,078.11	43.62
	Magetan Regency	19.33	73,829.47	73.12
	Ngawi Regency	21.82	51,323.00	37.93
	Tuban Regency	36.7	116,388.67	60.33
	Lamongan Regency	37.43	105,243.56	52.02
	Pamekasan Regency	46.97	62,853.15	61.34
	Sumenep Regency	10.53	34,534.91	25.95
	Blitar City	80.5	26,921.71	96.19
	Malang City	71.36	279,457.87	98.37
	City of Probolinggo	55.3	32,006.00	72.15
	City of Pasuruan	67.42	47,602.31	87.61
	Madiun City	76.28	44,834.06	99
	Surabaya City	93.69	652,816.19	99.06
	Stone City	70.12	47,959.35	92.12
Banten	Lebak Regency	21.57	54,370.43	24.72
	Serang Regency	3.15	13,842.38	3.16
	Tangerang City	71.82	795,919.13	99.69
	Cilegon City	77.72	83,496.19	79.73
	Serang City	60.23	157,065.26	69.71
	South Tangerang City	71.11	361,444.05	96.83
Bali	Jembrana Regency	56.67	47,825.98	79.76
	Badung Regency	43.88	136,811.43	68.47
	Gianyar Regency	62.57	149,517.59	72.89
	Klungkung Regency	73.52	40,074.15	98.57
	Bangli Regency	74.22	40,047.85	96.37
	Karangasem Regency	1.99	7,021.66	6.84
	Buleleng Regency	40.4	84,452.28	55.97
	Denpasar City	80.19	353,069.60	96.25
West Nusa Tenggara	West Lombok Regency	22.91	26,736.62	24.3
	Central Lombok Regency	17.29	57,445.61	36.05
	East Lombok Regency	19.53	65,878.06	32.43
	Sumbawa Regency	52.99	50,121.32	54.71
	West Sumbawa Regency	22.65	10,047.70	44.81
	North Lombok Regency	55.24	27,940.76	70.37
	Kupang Regency		53.94	0.09

Province	Regency /City	% Trash Handling (C/A)	Annual Junk (Tons/Year) (B + C)	% Garbage Managed (B+C)/A
East Nusa Tenggara	North Central Timor Regency	4.87	1,927.20	4.87
	East Flores Regency	8.65	6,803.39	9.04
	Ngada Regency	17.91	7,907.90	18.04
	Manggarai Regency	16.23	8,847.05	16.23
	East Sumba Regency	76.88	16,754.60	76.88
	Lembata Regency	7.26	1,904.24	7.33
	Rote Ndao Regency	6	3,994.74	8.1
	West Manggarai Regency	15.55	9,430.21	18.26
	Nagekeo Regency		705.52	2.93
	Central Sumba Regency	27.35	3,635.98	27.52
	Southwest Sumba Regency		2.56	0
	Malacca Regency		0	0
	Kupang City	70.76	67,167.24	78.87
West Kalimantan	Mempawah Regency	30.64	9,383.89	30.77
	Sanggau Regency	22.3	20,689.35	22.34
	Ketapang Regency	14.14	15,642.79	14.18
	Kapuas Hulu Regency	18.71	9,810.83	19.55
	Bengkayang Regency	14.9	6,550.04	15.01
	Landak Regency	14.56	8,989.95	15.03
	Melawi Regency	17.02	7,354.28	23.61
	North Kayong Regency	35.34	9,233.68	38.59
	Kubu Raya Regency	16.17	26,314.81	16.19
	Pontianak City	74.77	150,108.42	99.83
	City of Singkawang	86.85	34,766.08	97.98
Central Kalimantan	West Kotawaringin Regency	65.36	43,101.63	84.43
	East Kotawaringin Regency	30.07	26,384.76	30.19
	Kapuas Regency	11.86	10,343.90	13.33
	South Barito Regency	28.26	8,773.43	35.36
	North Barito Regency	59.37	14,847.11	62.3
	Seruyan Regency	17.56	5,507.86	17.62
	Sukamara Regency	6.21	2,491.12	26.48
	Gunung Mas Regency	10.03	3,577.00	10.03
	Pulang Pisau Regency	6.13	2,617.69	10.38
	Murung Raya Regency	21.38	8,380.77	38.96
	East Barito Regency	28.28	5,164.88	30.16
	City of Palangkaraya	71.08	57,835.25	98.88
South Kalimantan	Tanah Laut Regency	24.84	18,767.11	35.3
	Kotabaru Regency	29.72	22,081.79	33.37
	Banjar Regency	53.43	95,634.89	71.7
	Barito Kuala Regency	50.44	27,570.73	75.33
	Tapin Regency	61.64	22,908.23	79.29
	South Hulu Sungai Regency	63.8	26,379.49	74.05
	Central Hulu Sungai Regency	62.45	33,587.29	85.72
	North Hulu Sungai Regency	49.16	17,029.45	49.21
	Tabalong Regency	73.96	39,095.20	90.72
	Tanah Bumbu Regency	76.05	58,856.67	93.12
	Balangan District	71.65	19,396.25	91.03
	City of Banjarmasin	76.15	170,147.78	97.98
	City of Banjarbaru	72.02	69,665.22	99.96
East Kalimantan	Paser Regency	62.14	31,924.30	72.06
	The Great Patriotic War of Kutai Regency	57.94	99,534.97	73.62
	Berau Regency	64.33	43,123.96	81.78
	West Kutai Regency	41.19	10,855.94	41.28
	East Kutai Regency	49.6	46,617.02	58.95
	North Penajam Paser Regency	50.93	23,742.43	65.18
	Mahakam Ulu Regency	36.8	2,573.25	38.15
	City of Balikpapan	72.28	189,886.16	97.3

Province	Regency /City	% Trash Handling (C/A)	Annual Junk (Tons/Year) (B + C)	% Garbage Managed (B+C)/A
	Samarinda City	39.88	105,965.98	48.12
	Bontang City	71.12	38,837.46	99.68
North Kalimantan	Bulungan Regency	94.67	29,054.00	94.7
	Nunukan Regency	43.8	10,128.81	60.64
	Tana Tidung Regency	67.88	2,868.72	68.59
North Sulawesi	Bolaang Regency of Mongondow	6.28	2,938.69	6.32
	Minahasa Regency	65.33	59,358.48	92.86
	Islands Sangihe	44.25	9,477.61	46.17
	Talaud Islands Regency	6.25	919.31	6.26
	South Minahasa Regency	33.24	13,125.50	36.76
	North Minahasa Regency	54.23	25,781.46	58.63
	Southeast Minahasa Regency	26.65	5,021.78	28.83
	Bolaang Regency of North Mongondow	52.71	6,658.87	52.97
	Siau Tagulandang Regency of Biaro	31.56	3,503.73	32.93
	Bolaang Regency of East Mongondow		500.05	3.7
	Bolaang Regency of South Mongondow	43.78	4,982.25	45.27
	Manado City	84.48	97,429.21	91.66
	Bitung City	71.04	42,900.23	73.9
	Tomohon City	71.79	14,082.72	74.87
	Kotamobagu City	73.02	25,638.07	81.06
Central Sulawesi	Morowali Regency	8.56	3,417.98	10.99
	Banggai Regency	13.89	4,134.03	18.62
	Parigi Moutong Regency	4.14	7,832.31	9.39
	Banggai Laut Regency	29.85	4,434.75	31.4
	North Morowali Regency	6.36	1,774.51	6.45
	Palu City	74.74	60,461.27	84.4
South Sulawesi	Kab. Islands The Screen	21.65	4,697.78	22.64
	Bulukumba Regency	55.48	43,322.20	63.76
	Bantaeng Regency	35.38	19,890.38	64.38
	Bone Regency	58.06	109,129.92	72.88
	Maros Regency	48.37	33,379.75	58.74
	Pangkajene Regency	38.56	24,899.82	47.14
	Barru Regency	42.77	13,387.85	46.93
	Soppeng Regency	64.84	27,552.60	78.32
	Sidenreng Rappang Regency	54.67	34,652.16	71.76
	Pinrang Regency	43.13	39,562.22	57.74
	Tana Toraja Regency	31.46	14,864.95	31.54
	North Luwu Regency	12.3	7,514.10	12.45
	East Luwu Regency	32.59	21,008.61	46.64
	Makassar City	72.69	282,923.12	73.02
	Parepare City	73.1	26,117.16	88.43
	Palopo City	70.13	25,362.22	78.28
Southeast Sulawesi	Kolaka Regency	49.94	24,155.70	54.53
	Muna Regency	24.42	9,465.77	27.22
	North Konawe Regency	13.64	1,541.76	13.64
	East Kolaka Regency	7.07	2,576.76	12.48
	South Buton Regency	17.66	1,505.63	17.66
	Kendari City	97.91	91,513.54	98.01
	Bau Bau City	80.22	32,552.89	98.01
Gorontalo	Bone Bolango Regency	25.01	7,047.71	33.96
	Gorontalo City	70.44	48,514.20	93.16
West Sulawesi	Pasangkayu Regency	14.77	4,507.75	15.12
	Mamuju Regency	9.19	5,351.36	10.03
	Majene Regency	31.16	8,849.84	33.42

No	Province	2019	2020	2021	2022	2023
9	Bangka Belitung Islands	2.1	-2	4.82	0.18	1.76
10	Riau Islands	1.9	-6.43	-3.31	-1.14	19.3
11	Jakarta	2.5	1.66	1.85	2.27	0.87
12	West Java	2.3	-0.77	0.77	0.33	4.77
13	Central Java	2.2	-2.29	1.6	2.14	-3.42
14	DI Yogyakarta	2.4	-0.45	0.74	4.55	10.05
15	East Java	2.6	-2.01	3.19	2.53	-0.09
16	Banten	2.7	-3.38	1.81	0.75	12.87
17	Bali	2.8	-7.63	-3.2	-1.81	5.28
18	West Nusa Tenggara	2.1	-2.7	-0.83	4.56	-4.35
19	East Nusa Tenggara	2	-4.87	-0.5	-0.72	4.18
20	West Kalimantan	2.3	-2.35	3.78	1.98	-3.74
21	Central Kalimantan	2.5	-1.35	1.41	6.61	3.72
22	South Kalimantan	2.6	-3.58	2.2	5.97	5.47
23	East Kalimantan	2.7	-2.86	0.91	2.9	0.45
24	North Kalimantan	2.4	-4.2	1.61	0.63	-0.21
25	North Sulawesi	2.1	0.25	4.9	2.41	-2.19
26	Central Sulawesi	2.3	1.38	11.09	10.7	14.74
27	South Sulawesi	2.5	0.58	0.78	0.43	1.31
28	Southeast Sulawesi	2.2	-2.7	1.13	4.83	4.13
29	Gorontalo	2	0.74	0.56	-1.93	1.64
30	West Sulawesi	2.1	-4.16	0.54	-4.04	3.68
31	Maluku	2.3	-3.14	-0.18	4.06	-0.27
32	North Maluku	2.5	5.25	13.47	19.52	11.05
33	West Papua	2.2	-5.65	-5.52	1.16	-9.65
34	Papua	2.6	8.47	3.2	6.32	-16.87
35	Southwest Papua	-	-	-	-	-
36	South Papua	-	-	-	-	-
37	Central Papua	-	-	-	-	-
38	Papua Pegunungan (Highlands)	-	-	-	-	-
	Indonesia	**2.3**	**-1.84**	**1.65**	**2**	**1.63**

Source: Statistics Indonesia, Susenas 2024

Province	Regency /City	% Trash Handling (C/A)	Annual Junk (Tons/Year) (B + C)	% Garbage Managed (B+C)/A
Maluku	Buru Regency	16.86	4,707.04	19.97
	West Seram Regency	4.28	1,803.29	5.68
	Ambon City	67.87	63,830.80	70.56
	Tual City	61.05	14,513.24	62.25
North Maluku	Central Halmahera Regency	71.93	11,183.78	71.93
	South Halmahera Regency	55.9	20,841.85	55.9
	Sula Islands Regency	34.78	8,672.40	34.78
	East Halmahera Regency	80.03	15,727.16	80.03
	Morotai Island Regency	31.96	3,819.47	31.96
	Taliabu Island Regency	7.08	843.15	7.08
Papua	Islands Yap Regency	76.74	13,008.60	76.74
	Biak Numfor Regency	79.77	21,033.48	97.09
	Sarmi Regency	34.94	2,168.10	34.94
West Papua	Manokwari Regency	33.33	26,645.00	34.76
	Fak Fak Regency	43.92	5,851.35	44.45
	Bay Wondama Regency	44.46	3,222.59	49.56
	Kaimana Regency	45.8	4,568.91	46.95
South Papua	Boven Digoel Regency	30.68	3,022.20	31.75
	Asmat Regency	20.04	3,649.22	21.09
Central Papua	Nabire Regency	43.66	11,152.87	43.79
	Mimika Regency	52.07	30,605.76	53.58
	Dogiyai Regency		0	0
Papua Pegunungan (Highlands)	Jayawijaya Regency	26.28	10,895.25	26.42
Southwest Papua	Sorong Regency	31.03	7,877.45	41.52
	South Sorong Regency	16.51	1,277.50	16.51
	Raja Ampat Regency	26.5	2,705.67	27.05
Total			**20.225.253**	

Source: MoEF, 2024

** notes:*

- Data for 311 districts/cities
- *There are 2 municipalities (Malaka Regency and Dogiyai Regency) which have reported zero value percentage of managed waste*

1.1.3.2 Access to Safe and Efficient Public Transportation System

Indicator 44: Percentage of commuters using public transport

Table I. 33 Percentage Commuters Using Public Transport in Jabodetabek

Year	Percentage Commuters Using Public transport
2019	20.36%
2020	8.61%
2022	14.81%
2023	19.50%

Source: Statistics Indonesia, 2024

Table I. 34 Characteristics of Transportation Modes in Jabodetabek, 2023

Mode Type	Amount	%
Public transport	861.671	19.52
Private Vehicle	3.488.571	79.02
Walking and cycling	6.165	1.40
Other Vehicles	3.082	0.07
Amount	**4.414.974**	**100.00**

Source: Statistics Indonesia, 2024

Notes:

Public transportation (motorcycle taxis, cars) online rental, grab/gojek, omprengan, shared cars, taxi, angkot, public buses, trains, Transjakarta buses, special buses, Trans Jabodetabek, Trans Pakuan, Trans Patriot, Trans Tangerang Ayo), LRT/ MRT, and pedicabs)

Private Vehicle (motorcycles and cars)

Walking and cycling (commuting active)

Other Vehicles (boats, ships, truck, load cars, etc)

1.1.3.3 Access to Renewable Energy

Indicator 7: Renewable energy share in the total final energy consumption

Table I. 35 Share of renewable energy to final energy consumption

Year	Share of modern renewable energy in final energy consumption (SDG 7.2) (%)
2015	4.90
2016	6.27
2017	6.66
2018	8.60
2019	9.19
2020	11.27
2021	12.16
2022	12.30
2023	13.90
2024	14.10

Source: Ministry of Energy and Mineral Resources, 2024

Table I. 36 Renewable Energy Mix, 2015-2023

Year	Coal	Petroleum	Gas	Renewable Energy
2015	42.12	30.14	22.77	4.92
2016	44.9	27.84	21.12	6.69
2017	41.42	30.53	21.39	6.71
2018	36.71	33	19.68	8.64
2019	37.28	35.03	18.51	9.25
2020	38	31.6	19.20	10.94
2021	36.36	32.1	19.71	11.83
2022	40.86	30.39	16.89	11.86
2023	39.69	29.91	17.11	13.29

Source: Ministry of Energy and Mineral Resources, 2024

Table I. 37 Capacity of Renewable Energy Installed Based on Type, 2024

Types of Energy	Potential (GW)	Capacity Installed (MW)
Solar	3.294	917
Wind	155	152

Types of Energy	Potential (GW)	Capacity Installed (MW)
Water (Hydro)	95	7,056
Ocean	66	0
Bio-Energy	57	3,669
Geothermal	24	2,639
Coal Gasification	24	450
Total	**3,687**	**14,883**

Source: Ministry of Energy and Mineral Resources, 2024

1.1.3.4 Access to Information and Communication Technology (ICT)

Indicator 25: Fixed Internet broadband subscriptions per 100 inhabitants, by speed

Table I. 38 ICT Users, 2020-2023

Year	Population with mobile phones (%)	Households accessing the internet (%)	Population accessing the internet (%)	Households with computer (%)	Households with fixed line telephones (%)	Households with mobile phones (%)
2020	62.84	78.18	53.73	18.83	1.65	90.75
2021	65.87	82.07	62.1	18.24	1.36	90.54
2022	67.88	86.54	66.48	18.04	1.34	92.35
2023	67.29	87.09	69.21	18.06	1.17	89.02

Source: Ministry of Communication and Digital, 2024

Table I. 39 Penetration of Fixed Broadband Customers

Year	Amount Customers	Penetration (%)
2020	10.284.364	3.8
2021	11.722.218	4.3
2022	13.591.212	4.9
2023	10.864.201	3.9

Source: Ministry of Communication and Digital, 2024

Table I. 40 Fixed broadband internet subscription data, by speed (2020 - 2023)

Year	256Kbps >= 2 Mbps	2 Mbps >= 10 Mbps	>10 Mbps
2020	1,349,377	570,757	8,364,230
2021	698,554	479,104	10,544,560
2022	1,158,881	740,950	11,691,381
2023	106,145	1,555,786	4,270,321

Source: Ministry of Communication and Digital, 2024

1.2 Sustainable and Inclusive Urban Prosperity and Opportunities for All

1.2.1 Inclusive Urban Economy

1.2.1.1 Achieve productive employment for all, including youth employment

Indicator 11 Proportion of youth (aged 15-24 years) not in education, work or training

Table I. 41 Percentage of young people (15-24 years) not in Education, Employment or Training (NEET), 2024

Characteristics	Group Age (Years)			NEET Youth
	(16-18)	(19-24)	(25-30)	
Total	14.56	26.37	25.99	23.78
Gender				
- Male	14.13	20.32	10.15	14.98
- Female	15.02	32.83	42.53	33.10
Highest level of education completed				
- Graduated from College	61.15	28.29	16.13	19.62
- Graduated from high school/vocational school of the same degree	41.45	23.68	25.67	26.00
- Graduated from junior high school or equivalent	4.16	33.71	33.23	17.81
- Graduated from elementary school or equivalent	30.60	31.15	29.86	30.36
- Never study in school / Dropped out of elementary school	49.24	39.67	32.65	37.11
Regional Classification				
- Urban	14.25	24.04	25.91	22.80
- Rural	15.01	29.79	26.11	25.23

Source: Statistics Indonesia, Status as of February 6, 2025

Indicator 8: Annual growth rate of real GDP per employed person

Table I. 42 GDP Growth Rate Per Employed Person by Province Per Year, 2019-2023

No	Province	2019	2020	2021	2022	2023
1	Aceh	2.1	-4.73	2.73	2.75	2
2	North Sumatra	1.5	1.39	-0.22	2.37	0.11
3	West Sumatra	2.3	-3.19	3.29	0.22	-1.14
4	Riau	2.8	-3.42	-0.77	3.89	9.99
5	Jambi	2.6	-3.68	3.22	2.15	4.4
6	South Sumatra	2.4	-2.03	1.39	2.53	2.45
7	Bengkulu	2.2	-2.89	4.29	2.73	1.13
8	Lampung	2	-3.82	2.66	1.82	-2.35

1.2.1.2 Supporting the Informal Economy

Indicator 9: Proportion of informal employment in non-agriculture employment, by gender

Table I. 43 Percentage of population working in formal/informal activities by gender, 2024

Category	Formal Sector (%)	Informal Sector (%)
National Total	42.05	57.95
Men	65.7	56.37
Women	34.3	43.63
Urban	71.2	48.15
Rural	28.8	51.85

Source: Statistics Indonesia, 2024

Table I. 44 Percentage of older people working, 2015-2024

Year	Percentage (%)
2015	46.53
2016	47.37
2017	47.92
2018	49.79
2019	49.39
2020	51.04
2021	49.46
2022	52.55
2023	53.93
2024	55.32

Source: Statistics Indonesia, 2024

1.2.1.3 Supporting small and medium-size enterprises

Indicator 45: Small and medium-sized enterprises percentage share of GDP

Data is described in the report.

Table I. 45 Percentage of e-commerce businesses, 2023

Region	Distribution of e-commerce businesses	Percentage of e-commerce businesses by delivery region
Java	75.04%	75.17%
Sumatra	12.83%	15.38%
Kalimantan	3.92%	5.56%
Sulawesi	4.15%	4.96%
Bali and Nusa	3.65%	5.29%
Maluku and Papua	0.41%	0.84%
Overseas	-	0.82%

Source: Statistics Indonesia, 2024

1.2.1.4 Promote an enabling, fair, and responsible environment for business and innovation

Indicator 26: Number of days to register a new business in the country

Data is described in the report.

1.2.2 Urban Prosperity and Productivity

1.2.2.1 Support urban economic diversification as well as promote cultural and creative industries

Indicator 46: Employment in cultural and creative industries of as proportion of total employment

Table I. 46 Creative Economy Value Added

Year	Value- added Creative Economy (Rp)	Export Value Creative Economy (USD)
2020	1.135 T	18.78 M
2021	1.191 T	23.88 M
2023	1.297 T	26.46 M
2024	1.347 T	27.53 M

Source: Ministry of Tourism and Creative Economy, 2024

Table I. 47 Tourism and Creative Economy Labour Force, 2022

Characteristics of the Workforce	Tourism Worksforce	Creative Economy Workforce
Share of Workforce	16.92%	17.73%
Components offered	**Tourism Goods Trade**	**Culinary**
	42.31%	56.02%

Source: Statistics Indonesia, 2024

Table I. 48 Labour force of tourist accommodation services, tourism services, and cultural services (thousand people), 2018-2023

Year	Provision of Accomodation Services for Tourists (thousand people)	Provision of Other Tourism Services (thousand people)	Provision of Cultural Services (thousand people)
2018	1.097,99	334,01	238,92
2019	1.103,61	393,93	276,82
2020	920,46	326,73	203,75
2021	911,52	313,99	152,08
2022	1.139,33	349,83	231,47

Source: Statistics Indonesia, 2024

Indicator 12: Manufacturing employment as a proportion of total employment

Table I. 49 Proportion of Workforce in Manufacturing Sector (Percent)

Type of Industry	2022	2023	2024
Food Industry	3.86	3.97	4
Beverage Industry	0.37	0.34	0.39
Processing industry Tobacco	0.33	0.38	0.45
Textile Industry	0.82	0.77	0.75
Ready-to-wear Apparel Industry	2	1.93	2
Leather Industry. goods from leather and footwear	0.71	0.67	0.66
Wood industry goods from wood and cork (not including furniture) and goods wicker from bamboo, rattan and the like	1.25	1.13	1.06
Paper and goods industry from paper	0.19	0.2	0.21
Printing and reproduction industry of recorded media	0.26	0.21	0.22
Product industry from coal and refineries oil earth	0.04	0.03	0.03
Materials industry chemicals and goods from material chemistry	0.28	0.26	0.27
Pharmaceutical industry, products drug chemistry, and medicine traditional	0.12	0.1	0.15
Rubber industry, goods from rubber, and plastic	0.45	0.4	0.41
Goods industry excavation no metal	0.68	0.75	0.64
Metal industry base	0.17	0.19	0.16
Goods industry metal, not machinery and equipment	0.46	0.43	0.43
Computer industry goods electronics and optics	0.11	0.12	0.08
Equipment industry electricity	0.14	0.13	0.12
Machinery and equipment industry YTDL	0.16	0.15	0.12
Vehicle industry motorized trailers and semi-trailers	0.16	0.17	0.12
Tool industry transport other	0.19	0.18	0.18
Furniture industry	0.65	0.56	0.61
Processing industry other	0.62	0.59	0.64
Repair and installation services machinery and equipment	0.15	0.16	0.15
Indonesia	14.17	13.83	13.83

1.2.2.2 Develop technical and entrepreneurial skills to thrive in a modern urban economy

Indicator 47: Annual number of vocational and technical education individuals trained

Table I. 50 Number of Competency-Based Training Participants by Province and Gender, 2024

Province	Gender		Total
	Male	Female	
Aceh	1.041	895	1.936
Bali	439	617	1.056
Banten	1.088	420	1.508
Bengkulu	407	425	832
DI Yogyakarta	150	89	239
DKI Jakarta	56	24	80
Gorontalo	173	220	393
Jambi	279	345	624
West Java	4.502	3.058	7.560
Central Java	3.260	3.892	7.152
East Java	1.869	1.608	3.477
West Kalimantan	365	323	688
South Kalimantan	214	426	640
Central Kalimantan	331	421	752
East Kalimantan	614	402	1.016
North Kalimantan	170	118	288
Bangka Belitung Islands	287	196	483
Riau Islands	201	84	285
Lampung	262	427	689
Maluku	348	273	621
North Maluku	344	341	685
West Nusa Tenggara	1.469	1.297	2.766
East Nusa Tenggara	285	514	799
Papua	5	11	16
West Papua Barat	60	84	144
Southwest Papua	325	292	617
South Papua	10	7	17
Riau	137	167	304
South Sulawesi	1.512	2.083	3.595
Central Sulawesi	332	354	686
Southeast Sulawesi	477	563	1.040
North Sulawesi	113	94	207

West Sumatera	1.369	1.174	2.543
South Sumatera	859	780	1.639
North Sumatera	759	902	1.661
Total	**24.112**	**22.926**	**47.038**

Source: Ministry of Manpower, 2024

1.2.2.3 Strengthening urban-rural links to maximize productivity

Indicator 20: Does your country have Policy National Urban or Regional Development Plans that (a) respond to population dynamics, (b) ensures balanced territorial development, and (c) increase in local fiscal space.
Data is described in the report.

1.3 Environmentally Resilient and Sustainable Urban Development

1.3.1 Resilience, Mitigation, and Adaptation of Cities and Settlements

1.3.1.1 Minimise Urban Sprawl and Biodiversity Loss

Indicator 15: Ratio of land consumption rate to population growth rate

Table I. 51 Distribution of LCR/PGR Values (2000-2025)

No	City	2000-2005	2005-2010	2010-2015	2015-2020	2020-2025
1	Banda Aceh	-0.479	0.1222222	0.056	0,0506944	0.36
2	Sabang	1.266	4.104	1,669	1.01	-1.96
3	Langsa	-	3.403	1,871	0,0888889	0,0840278
4	Lhokseumawe	-	1,008	0.4291667	0.51	-0.05
5	Subulussalam	-	-	1,774	0,0923611	3
6	Sibolga	0.3361111	-0.38	0.3895833	1.3	11.57
7	Tanjung Balai	1.215	8,812	0.5576389	1.37	0,0902778
8	Pematangsiantar	-1,735	4.152	2.172	1.1	4.27
9	High Cliff	3,591	1,741	2.025	1.12	4.54
10	Medan	0.6361111	1.132	0.6354167	0,0520833	0,0458333
11	Binjai	2,347	5,856	2,889	1.29	3.07
12	Padangsidimpuan	-	2.398	0.6152778	0,0680556	-1.27
13	Mount Sitoli	-	-	1.27	2.22	2.15
14	Padang	1,348	3.318	1,927	1.06	0,05625
15	Solok	1,766	2,929	1,444	0,0541667	0,0958333
16	Sawahlunto	5,544	1,466	0.4569444	0,0520833	3.02
17	Padang Panjang	2.137	5.208	1,423	0,0583333	0.07
18	Bukit tinggi	0.6798611	0.2555556	0.1326389	0.53	-0.11
19	Payakumbuh	8,708	2,447	0.1027778	1.17	0,0958333

No	City	2000-2005	2005-2010	2010-2015	2015-2020	2020-2025
20	Pariaman	-	1,399	3.01	0,10625	2.16
21	Pekanbaru	1.986	1,029	0.6034722	1.4	0.32
22	Dumai	1,555	1,021	1.255	2.45	-4.85
23	Jambi	6.119	0.6138889	1,752	1.53	-14.05
24	Sungai Penuh	-	-	5,083	7.19	-9.71
25	Palembang	-2.647	1,035	1,045	1.45	0,4305556
26	Prabumulih	-	1,088	1,805	1.38	4.24
27	Pagar Alam	-	-4,861	5.211	4.15	4.04
28	Lubuk Linggau	-	1.148	1,746	2.08	2.15
29	Bengkulu	307,144	1,499	2.435	2.48	1.45
30	Bandar Lampung	2.136	0.3826389	0.47	0.5	1.27
31	Metro	7.205	0.5180556	0.58	0,0583333	3.21
32	Pangkal Pinang	3.339	2,368	1,876	0,0951389	0,1263889
33	Batam	1.126	0.32	0.2069444	0.27	-0.79
34	Tanjung Pinang	-	3,598	4.216	1.37	-0.46
35	DKI Jakarta (5 Administrative City Areas)	0.09	0.012	0.002	0.23	0,0534722
36	Bogor	1,038	1.158	0.3138889	0,0666667	1.54
37	Sukabumi	1,757	4.058	1,977	2.01	0,1444444
38	Bandung	0.3118056	0.1243056	0.1055556	0,0506944	0,0506944
39	Cirebon	0.2743056	-0.848	1.177	0,0625	2.21
40	Bekasi	0.2180556	0.0826389	0.006	0.34	0.31
41	Depok	1,017	0.1118056	0.077	0.37	0.45
42	Cimahi	0.059	-0.675	0.1152778	0.55	0,0909722
43	Tasikmalaya	1,495	2.261	3,516	0,1465278	11.3
44	Banjar	2,671	4,764	9.118	4.43	7.34
45	Magelang	0.2645833	-0.31	0.1472222	0,1520833	9.08
46	Surakarta	0.2909722	-0.015	-0.013	1.12	0,1465278
47	Salatiga	2.162	3.458	1.405	0,0881944	1.12
48	Semarang	1,093	0.3027778	0.2701389	1.04	0,0618056
49	Pekalongan	7.285	0.1222222	0.052	0,0618056	1.31
50	Tegal	6,391	1,977	1,613	3.51	6.41
51	Yogyakarta	0	0	0	0.19	0.04
52	Kediri	9.283	0.3451389	0.4340278	0,1680556	0,3854167
53	Blitar	3,931	0.4895833	0.5333333	4.29	4.59
54	Malang	1,961	1,087	0.5368056	2.57	8.59
55	Probolinggo	2,553	2.48	0.60625	3.38	0,2152778
56	Pasuruan	6,893	0.4201389	0.5777778	0,0993056	6.03
57	Mojokerto	7,869	0.2347222	0.0986111	1.48	4.34
58	Madiun	1,865	-13,034	0.4243056	7.58	33.26.00
59	Surabaya	3.439	0.068	0.1118056	0,1444444	11.45
60	Batu	-	0.3659722	0.4569444	0,1076389	0,275

No	City	2000-2005	2005-2010	2010-2015	2015-2020	2020-2025
61	Tangerang	0.003	0.001	0.002	0.33	0,1069444
62	Cilegon	0.2138889	0.014	0.076	0.32	2.56
63	Serang	-	-	0.077	1.13	5.41
64	South Tangerang	-	-	0.007	-0.19	-0.22
65	Denpasar	0.4965278	0.06	0.16	-0.15	1.51
66	Mataram	1,629	0.3354167	0.5770833	-1.07	1.25
67	Bima	-	0.3652778	0.2833333	-2.25	2.49
68	Kupang	0.5597222	0.1361111	0.1027778	0.58	1.38
69	Pontianak	3.402	1.55	1,531	0,0576389	1.45
70	Singkawang	-	2.013	1.411	1.26	1.5
71	Palangkaraya	3,718	1.253	1,828	2.28	0,0625
72	Banjarmasin	1,785	1,352	1.37	1.51	1.05
73	Banjar Baru	3.165	1,453	1,609	1.05	0,0923611
74	Balikpapan	2.008	0.3909722	1,087	1.59	31.30.00
75	Samarinda	2,786	1,447	2.603	1.49	115.17.00
76	Bontang	1,078	0.4520833	0.2944444	0,0444444	-3.65
77	Tarakan	1,884	0.4993056	0.3375	0,0465278	0,0527778
78	Manado	1,734	13,707	3,063	0,1680556	6.07
79	Bitung	1,843	0.6263889	1,381	0,0659722	3.07
80	Tomohon	-	0.0618056	1,016	0,0451389	0,5569444
81	Kotamobagu	-	-	0.0979167	0.54	0,0673611
82	Palu	9.315	1,017	1,817	0,0493056	2.53
83	Makassar	0.1395833	0.028	0.015	0,0458333	0,0604167
84	Parepare	6.175	0.4340278	1,402	1.26	0,1375
85	Palopo	-	1,956	1,095	0.49	0,1090278
86	Kendari	1,942	0.6694444	1,508	0.56	-0.54
87	Bau-Bau	-	0.5979167	3,029	0,0673611	1.08
88	Gorontalo	0.1118056	0.065	0.053	0.38	0.31
89	Ambon	1,939	0.3631944	0.4083333	0.29	-1.26
90	Tual	-	-	0.3847222	0.36	1.25
91	Ternate	1,457	1.15	0.4798611	-0.65	0.43
92	Tidore Archipelago	-	1.116	3.243	0.38	0.43
93	Sorong	1,751	1,027	0.6	0.26	-90.68
94	Jayapura	6,979	0.0569444	1.38	0.32	0,1402778

Source: Team Analysis, 2025

Indicator 48: Proportion of Land Under Protected Natural Areas

Data is described in the report.

1.3.1.2 Climate change mitigation and adaptation actions

Indicator 49: Percentage of local governments that adopt and implement local disaster risk reduction strategies in line with national strategies

Data is described in the report.

Indicator 50: Percentage sub-national/local government with budgets dedicated to climate change mitigation and adaptation actions

Data is described in the report.

Indicator 51: Percentage of cities with multi-hazard mapping

Data is described in the report.

Indicator 30: Annual mean levels of fine particulate matter (e.g. PM2.5 and PM10) in cities (population weighted)

Table I. 52 Average PM2.5 and PM10 Concentration, 2024

Station (Municipality)	*Annual Average PM 2.5 Concentration (µgram/m^3)*	*Annual Average PM10 Concentration (µgram/m^3)*
Jambi	19.02	18.05
Palembang	15.67	19.86
Palangkaraya	8.44	9.02
Banjarmasin	11.19	13.17
Padang	11.75	12.44
Pekanbaru	20.11	14.62
Pontianak	14.90	17.24
GBK Jakarta	33.97	61.67
Aceh	10.94	12.28
Batam	20.56	21.93
Makassar	11.55	11.86
Manado	12.47	21.26
Mataram	16.55	18.17
Bandung	31.83	31.84
Bekasi	41.25	44.33
Bengkulu	16.67	16.53
Denpasar	14.64	14.98
Depok	38.36	40.45
Jayapura	17.83	10.13
Kupang	11.10	10.38
Bandar Lampung	18.79	25.71
Malang	25.73	23.77
Medan	40.78	
Semarang	21.24	25.46
Surabaya	28.15	29.01
Yogyakarta	20.18	24.67
Ambon	6.65	10.25
Gorontalo	14.25	25.29

Station (Municipality)	*Annual Average PM 2.5 Concentration (µgram/m³)*	*Annual Average PM10 Concentration (µgram/m³)*
Kendari	11.23	21.07
Mamuju	3.37	7.02
Manokwari	15.00	28.26
Palu	8.37	20.15
Pangkalpinang	13.26	19.59
Samarinda	7.58	18.54
Serang	15.36	27.14
Ternate	5.67	9.33
Dumai	21.05	15.04
Tangerang	43.08	60.42
Tanjung Pinang	12.32	11.15
Balikpapan	9.94	10.84
Banjarbaru	27.80	12.59
Bogor	27.59	32.15
Solo	20.35	20,21
South Tangerang	41.96	46.02
South Barito Regency	4.97	5.93
Bekasi Regency	38.72	43.97
Bogor Regency	33.27	68.97
Bulungan Regency	7.36	10.82
Indragiri Hilir Regency	15.03	14.02
Karawang Regency	40.15	52.79
East Kotawaringin Regency	7.27	8.33
Rokan Hilir Regency	11.87	12.44
Sanggau Regency	8.94	11.40
East Tanjung Jabung Regency	13.39	14.76
West Bandung Regency	23.71	40.59
Bogor Leuwiliang Regency	29.67	50.15
Cilacap Regency	8.50	26.61
Gresik Regency	14.74	19.78
Indramayu Regency	32.74	42.02
Kendal Regency	15.03	26.23
Mojokerto Regency	47.25	55.68
Semarang Regency	22.68	39.06
Serang Regency	43.50	55.92
Tangerang Curug Regency	27.99	38.84
Sidoarjo Regency	34.26	39.42
Cilegon City	59.10	77.41

Source: Ministry of Environment, 2025

Indicator 3: Mortality rate attributed to household and ambient air pollution

Data is described in the report.

Table I. 53 Prevalence of ARI according to Group Age, SKI 2023

Group Age	D		D/G		N weighted
	%	95% CI	%	95% CI	
<1	4.4	3.8 – 5.0	26.6	25.4 – 27.8	11,518
1-4	4.9	4.6 – 5.2	35.7	35.1 – 36.3	59,253
5-14	2.8	2.6 – 3.0	28.6	28.1 – 29.1	138,465
15-24	1.6	1.5 – 1.8	22.5	22.0 – 23.1	139,891
25-34	1.6	1.5 – 1.8	20.1	19.7 – 20.6	140,206
35-44	1.6	1.4 – 1.8	20.0	19.5 – 20.4	131,595
45-54	1.8	1.7 – 2.0	20.9	20.4 – 21.3	113,367
55-64	2.1	1.9 – 2.3	22.7	22.2 – 23.2	81,723
65-74	2.4	2.1 – 2.6	23.7	23.0 – 24.5	44,881
75+	2.5	2.1 – 3.0	24.0	22.8 – 25.1	16,632

Source: Ministry of Health, 2024

Table I. 54 Prevalence of Pneumonia according to Group Age, SKI 2023

Group Age	D		D/G		N weighted
	%	95% CI	%	95% CI	
<1	0.86	0.66 – 1.12	11.6	10.8 – 12.5	11,518
1-4	1.16	1.03 – 1.30	15.3	14.8 – 15.8	59,253
5-14	0.40	0.35 – 0.45	12.2	11.8 – 12.6	138,465
15-24	0.30	0.24 – 0.37	9.9	9.6 – 10.3	139,891
25-34	0.36	0.30 – 0.44	9.4	9.0 – 9.7	140,206
35-44	0.33	0.29 – 0.38	9.5	9.2 – 9.8	131,595
45-54	0.47	0.41 – 0.55	9.9	9.5 – 10.2	113,367
55-64	0.62	0.54 – 0.72	11.0	10.6 – 11.4	81,723
65-74	0.86	0.73 – 1.01	12.4	11.8 – 12.9	44,881
75+	0.78	0.60 – 1.01	12.6	11.7 – 13.4	16,632

Source: Ministry of Health, 2024

Table I. 55 Prevalence of Pulmonary TB according to Group Age, SKI 2023

Group Age	%	95% CI	N weighted
<1	0.08	0.04 – 0.19	11,518
1-4	0.42	0.34 – 0.53	59,253
5-14	0.18	0.14 – 0.22	138,465
15-24	0.18	0.14 – 0.22	139,891
25-34	0.26	0.21 – 0.32	140,206
35-44	0.28	0.23 – 0.34	131,595
45-54	0.37	0.31 – 0.44	113,367
55-64	0.51	0.44 – 0.60	81,723
65-74	0.59	0.49 – 0.73	44,881
75+	0.50	0.35 – 0.71	16,632

Source: Ministry of Health, 2024

1.3.1.3 Develop system to reduce the impact of natural and man-made disaster

Indicator 52: Does the country have a multi-hazard monitoring and forecasting system

Table I. 56 Disaster Risk Index Outcomes

Year	IRBI
2015	156.43
2016	150.58
2017	148.82
2018	145.85
2019	144.02
2020	141.65
2021	138.81
2022	135.56
2023	132.25
2024	128.52

Source: BNPB, 2025

1.3.1.4 Building urban resilience through quality infrastructure and spatial planning

Indicator 53: The number of cities that have/percentage of urban population that is covered by multi-hazard early warning systems

Data is described in the report.

1.3.2 Sustainable Management and Utilisation of Natural Resources

1.3.2.1 Strengthening sustainable natural resource management in urban areas

Indicator 21: Material footprint, material footprint per capita, and material footprint per GDP

Data is described in the report.

Indicator 22: Domestic material consumption, domestic material consumption per capita, and domestic material consumption per GDP

Data is described in the report.

Table I. 57 Material Footprint and Domestic Material Consumption, 1990 - 2024

Year	Domestic Material Consumption (Index)	RMC Material Trace (Index)	GDP (2015 USD, Index)	Productivity (Index)
1990	100	100	100	100
2000	~120	~125	~145	~115
2010	~140	~160	~190	~135
2015	~150	~180	~210	~140
2020	~160	~230	~250	~145
2024	~170	~300	~340	~160

Source: https://www.materialflows.net/material-use-in-indonesia-compiling-a-country-profile/

Indicator 27: Green Area per capita

Table I. 58 Green Area per Capita in Selected Cities in Indonesia, (2020-2024)

No.	Province	Municipalities	City Area (Km²) (A)	Area of Green Space (km²) (B)		Population		Green Space per Capita (m²)		% Green Space (A/B)	
				2020	2024	2020	2024	2020	2024	2020	2024
1	Aceh	Banda Aceh	59,02	-	8,44		265.019		31.85		14,30
2	Aceh	Sabang	122,13	0,01	0,00	41.197	43.470	0.24	0.01	0,01	0,00
3	Aceh	Langsa	239,83	-	75,13		197.909		379.61		31,33
4	Aceh	Kinabalu	59,02	7,08	-	252.899		28.00		12,00	
5	North Sumatra	Medan	265,10	1,28	29,27	2.435.252	2.486.283	0.53	11.77	0,48	11,04
6	North Sumatra	Pematangsiantar	79,97	0,07	0,71	268.254	277.054	0.26	2.58	0,09	0,89
7	North Sumatra	Binjai	90,23	-	0,02		307.170		0.05		0,02
8	North Sumatra	Tebing Tinggi	38,44	12,65	-	172.838		73.19		32,91	
9	West Sumatra	Padang	694,96	0,35	142,27	909.040	954.177	0.39	149.10	0,05	20,47
10	West Sumatra	Solok	58,72	11,45	20,66	73.438	77.842	155.91	265.40	19,50	35,18
11	West Sumatra	Sawahlunto	273,45	0,11	0,34	65.138	68.520	1.69	4.94	0,04	0,12
12	West Sumatra	Payakumbuh	80,43	4.00	8,53	139.576	147.960	28.66	57.67	4,97	10,61
13	West Sumatra	Bukittinggi	25,24	0,06	-	121.028		0.50		0,24	
14	West Sumatra	Padang Panjang	23,00	1,13	-	56.311		20.07		4,91	
15	Riau	Pekanbaru	632,30	2.00	47,26	983.36	1.167.599	2.03	40.48	0,32	7,47
16	Riau	Dumai	1.727,00	-	0,27		349.390		0.78		0,02
17	Jambi	Jambi	205,38	1,04	24,23	606.200	635.100	1.72	38.15	0,51	11,80
18	South Sumatra	Pagar Alam	633,66	-	2,78		149.199		18.62		0,44
19	South Sumatra	Prabumulih	434,46	4,54	5,17	193.196	203.312	23.50	25.45	1,04	1,19
20	South Sumatra	Palembang	400,61	43,57	-	1.668.848		26.11		10,88	
21	Bengkulu	Bengkulu	151,70	-	3,90		397.321		9.80		2,57
22	Lampung	Bandar Lampung	197,22	-	6,09		1.226.210		4.96		3,09
23	Lampung	Metro	68,74	0,29	-	168.676		1.72		0,42	
24	Riau Islands	Tanjung Pinang	144,56	4,32	25,07	227.663	236.110	18.98	106.19	2,99	17,34
25	Riau Islands	Batam	1595,00	2,12	-	1.196.396		1.77		0,13	
26	Jakarta	Jakarta Pusat	48,13	0,79	3,57	1.056.896	1.070.000	0.75	3.34	1,64	7,42
27	Jakarta	Jakarta Utara	140,00	4,91	7,53	1.778.981	2.526.749	2.76	2.98	3,51	5,38
28	Jakarta	Jakarta Barat	124,40	0,05	5,56	2.434.511	2.449.900	0.02	2.27	0,04	4,47
29	Jakarta	Jakarta Selatan	141,27	-	7,07		2.588.000		2.73	0,00	5,01
30	Jakarta	Jakarta Timur	182,70	-	15,39	3.037.139	3.282.704	0.00	4.69	0,00	8,42
31	West Java	Bogor	11850,00	1,84	2,96	1.043.070	1.078.350	1.76	2.75	0,02	0,03
32	West Java	Cirebon	37,36	-	1,70		344.850		4.93	0,00	4,55

33	West Java	Bekasi	210,49	-	16,17		2.644.060		6.11		7,68
34	West Java	Depok	200,29	0,65	0,09	2.056.335	2.163.640	0.32	0.04	0,32	0,04
35	West Java	Tasikmalaya	183,80	-	0,26		750.730		0.35	0,00	0,14
36	West Java	Cimahi	42,73	0,37	-	568.400		0.65		0,87	
37	West Java	Banjar	132,00	36,62	36,28	200.973	209.790	182.21	172.92	27,74	27,48
38	West Java	Sukabumi	48,20	2,67	-	346.325		7.71		5,54	
39	Banten	Tanjungbalai	266,74	0,17	-	692.101		0.25		0,06	
40	Banten	Tangerang	164,55	0,62	-	1.895.486		0.33		0,38	
41	Banten	Tangerang Selatan	147,19	0,27	-	1.354.350		0.20		0,18	
42	Central Java	Magelang	18,12	1,89	1,87	121.526	122.430	15.55	15.31	10,43	10,35
43	Central Java	Surakarta	46,72	-	0,51		528.040		0.97	0,00	1,10
44	Central Java	Semarang	373,70	109,35	109,31	1.653.524	1.708.830	66.13	63.97	29,26	29,25
45	Central Java	Salatiga	56,78	0,45	-	192.322		2.34		0,79	
46	Central Java	Tegal	39,68	2,06	-	273.825		7.52		5,19	
47	Special Region of Yogyakarta	Yogyakarta	32,50	2,62	2,05	373.859	461.225	7.01	4.45	8,06	6,32
48	East Java	Kediri	6.340,00	0,16	6,99	289.796	295.200	0.55	23.69	0,00	0,11
49	East Java	Blitar	32,58	2,29	11,28	149.149	153.400	15.35	73.53	7,03	34,62
50	East Java	Malang	110,08	1,55	17,26	843.810	865.300	1.84	19.95	1,41	15,68
51	East Java	Probolinggo	56,67	0,08	2,17	239.649	247.000	0.33	8.79	0,14	3,83
52	East Java	Pasuruan	39,00	-	0,47		216.400		2.17	0,00	1,20
53	East Java	Mojokerto	20,21	0.00	0,05		136.100		0.40	0,00	0,27
54	East Java	Madiun	33,23	2,56	2,89	195.175	200.000	13.12	14.44	7,70	8,69
55	East Java	Surabaya	334,51	73,58	121,00	2.874.314	2.911.400	25.60	41.56	22,00	36,17
56	East Java	Batu	199,09	0,98	0,96	213.046	220.200	4.60	4.35	0,49	0,48
57	West Nusa Tenggara	Mataram	61,30	0,06	2,43	429.651	445.010	0.14	5.45	0,10	3,96
58	West Nusa Tenggara	Bima	222,25	-	1,11		163.604		6.79	0,00	0,50
59	East Nusa Tenggara	Kupang	180,27	-	2,03		474.801		4.27	0,00	1,12
60	West Kalimantan	Pontianak	107,80	0,03	9,03	658.69	680.85	0.05	13.27	0,03	8,38
61	West Kalimantan	Singkawang	504,00	-	64,30		249.998		257.22	0,00	12,76
62	Central Kalimantan	Palangkaraya	2.853,19	91,58	302,54	293.457	310.100	312.07	975.63	3,21	10,60
63	South Kalimantan	Banjarbaru	305,20	52,15	65,17	253.442	273.500	205.77	238.29	17,09	21,35
64	South Kalimantan	Banjarmasin	998,46	1,21	-	657.663		1.84		0,12	
65	East Kalimantan	Balikpapan	509,75	187,0	197,41	688.318	757.418	271.79	260.64	36,70	38,73
66	East Kalimantan	Samarinda	716,95	3,62	6,05	827.944	861.880	4.37	7.01	0,50	0,84
67	East Kalimantan	Bontang	161,88	55,58	77,91	178.917	190.620	310.65	408.70	34,33	48,13
68	North Kalimantan	Tarakan	250,80	98,61	-	242.786		406.16		39,32	

69	North Sulawesi	Manado	161,00	-	0,01		460.430		0.03	0,00	0,01
70	North Sulawesi	Bitung	313,51	-	0,00		234.970		0.00	0,00	0,00
71	North Sulawesi	Kotamobagu	108,89	18,52	18,52	123.722	129.070	149.69	143.51	17,01	17,01
72	North Sulawesi	Tomohon	34,08	0,29	-	100.587		2.88		0,85	
73	Central Sulawesi	Palu	395,06	-	137,03		392.500		349.11		34,68
74	South Sulawesi	Makassar	175,77	4,42	0,01	1.423.877	1.464.640	3.10	0.00	2,51	0,00
75	South Sulawesi	Parepare	99,33	20,58	20,91	151.454	424.650	135.88	49.23	20,72	21,05
76	South Sulawesi	Palopo	247,52	2,51	0,48	184.681	292.420	13.59	1.62	1,01	0,19
77	Southeast Sulawesi	Kendari	271,76	-	53,28		118.260		450.53	0,00	19,61
78	Gorontalo	Gorontalo	79,59	0,02	0,29	198.539	207.808	0.10	1.40	0,03	0,37
79	Maluku	Tual	254,39	-	0,07		92.744		0.72	0,00	0,03
80	Maluku	Ambon	45,47	1,67	-	347.288		4.81		3,67	
81	North Maluku	Ternate	162,20	0,03	0,03	205.001	214.400	0.15	0.12	0,02	0,02
82	North Maluku	Tidore	2875,09	15,34	-	114.480		134.00		0,53	
83	Papua	Jayapura	835,29	-	6,34		404.799		15.65	0,00	0,76
	INDONESIA			**900,8**	**1.618,68**	**39.863.467**	**44.847.93**	**22,6**	**35,80**		

Source: Ministry of Environment- National Waste Management Information System (SIPSN), 2025

Note	Population
Small City	<100.000
Medium City	100.000-500.000
Big City	500.000-1.000.000
Metropolitan	>1.000.000

1.3.2.2 Promote resource conservation and waste reduction, reuse and recycling

Indicator 23: Recycling Rate and Tons of Material Recycled.

Data is described in the report.

1.3.2.3 Implement environmentally sound management of water resources and coastal areas

Indicator 54: Existence of an enforced coastal and/or land management plan in the country

Data is described in the report.

1.3.2.4 Adopt a smart-city approach that leverages digitization, clean energy, and technologies

Indicator 55: Percentage reduction in annual final energy consumption in homes using smart monitoring systems

Data is described in the report.

Indicator 56: Share of street junction with traffic lights connected to traffic management systems

Data is described in the report.

2

Effective Implementation

2.1 Building a Governance Structure: Establishing a Supportive Framework

2.1.1 Decentralization to enable sub-national and local governments undertake their assigned responsibilities

Indicator 58: Percentage of the total budget that the local / sub-national government have discretion over to decide on priorities (financial autonomy)

Data is described in the report.

2.1.2 Link urban policies to financial mechanisms and budgets

Indicator 59: Percentage of the local / sub-national government's financial resources generated from endogenous (internal) sources of revenue

Data is described in the report.

2.1.3 Develop legal and policy frameworks to improve government capacity to implement urban policies

Indicator 60: Quality law

Data is described in the report.

2.1.4 Strengthen the capacity of sub-national and local governments to implement multilevel governance at the local and metropolitan levels

Indicator 61: Published performance delivery standards at the sub-national level

Data is described in the report.

2.1.5 Promote participatory, age- and gender-responsive approaches to urban policy and planning

Indicator 16: Proportion of cities with a direct participation structure of civil society engagement in urban planning and management, which are regular and democratic

Data is described in the report.

2.1.6 Promote women's full participation in all fields and all levels of decision-making

Indicator 24: Proportions of positions (by sex, age, persons with disabilities, and population groups) in public institutions (national and local legislatures, public service, and judiciary) compared to national distributions

Data is described in the report.

2.2 Planning and Management Urban Spatial Development

2.2.1 Implementation of integrated and balanced regional development policies

Indicator 20: Does the country have a National Urban Policy or Regional Development Plan that (a) responds to population dynamics, (b) ensures balanced territorial development, and (c) increase in local fiscal space.

Data is described in the report.

Indicator 62: Number of countries, regional governments, and cities in which plans and designs are publicly accessible to residents (on-line) and can be consulted at all times

Data is described in the report.

2.2.2 Integrate housing into urban development plans

Indicator 13: Proportion of urban population living in slums, informal settlements or inadequate housing

Refer to section 1.1.2.4

2.2.3 Include culture as a priority component of urban planning

Indicator 17: Total expenditure (public and private) per capita spent on the preservation, protection, and conservation of all cultural and natural heritage, by type of heritage, level of government, type of expenditure, and type of private funding

Data is described in the report.

2.2.4 Implement planned urban expansion and infilling, urban renewal and regeneration of urban areas

Indicator 28: Population Density

Table II. 1 Population Density by Province, 2020-2022

No	Province	Amount Population (Thousand)				Density Population per square km (Km^2)			
		2020	2021	2022	2023	2020	2021	2022	2023
1	Aceh	5274.9	5333.7	5407.9	5482.5	91	92	95	96
2	North Sumatra	14799.4	14936.2	15115.2	15386.6	203	205	209	212
3	West Sumatra	5534.5	5580.2	5640.6	5757.2	132	133	134	137
4	Riau	6394.1	6493.6	6614.4	6642.9	73	75	74	74
5	Jambi	3548.2	3585.1	3631.1	3679.2	71	72	74	75
6	South Sumatra	8467.4	8550.9	8657	8743.5	92	93	100	101
7	Bengkulu	2010.7	2032.9	2060.1	2086	101	102	102	104
8	Lampung	9007.8	9081.8	9176.6	9314	260	262	273	277
9	Bangka Belitung Island	1455.7	1473.2	1494.6	1511.9	89	90	90	91
10	Riau Island	2064.6	2118.2	2179.8	2152.6	252	258	264	260
11	Jakarta	10562.1	10609.7	10680	10672.1	15907	15978	16158	16146

No	Province	Amount Population (Thousand)				Density Population per square km (Km^2)			
		2020	2021	2022	2023	2020	2021	2022	2023
12	West Java	48274.2	48782.4	49405.8	49860.3	1365	1379	1334	1346
13	Central Java	36516	36742.5	37032.4	37541	1113	1120	1078	1093
14	Yogyakarta	3668.7	3712.9	3761.9	3736.5	1171	1185	1186	1178
15	East Java	40665.7	40878.8	41150	41527.9	851	855	857	865
16	Banten	11904.6	12061.5	12252	12307.7	1232	1248	1310	1316
17	Bali	4317.4	4362.7	4415.1	4404.3	747	755	790	788
18	West Nusa Tenggara	5320.1	5390	5473.7	5560.3	286	290	278	283
19	East Nusa Tenggara	5325.6	5387.7	5466.3	5569.1	109	111	118	120
20	West Kalimantan	5414.4	5470.8	5541.4	5623.3	37	37	38	38
21	Central Kalimantan	2670	2702.2	2741.1	2773.7	17	18	18	18
22	South Kalimantan	4073.6	4122.6	4182.1	4222.3	105	106	113	114
23	East Kalimantan	3766	3808.2	3859.8	3909.7	29	30	30	31
24	North Kalimantan	701.8	713.6	727.8	730	9	9	10	10
25	North Sulawesi	2621.9	2638.6	2659.5	2681.5	189	190	183	185
26	Central Sulawesi	2985.7	3021.9	3066.1	3086.8	48	49	50	50
27	South Sulawesi	9073.5	9139.5	9225.8	9362.3	194	196	204	207
28	Southeast Sulawesi	2624.9	2659.2	2701.7	2749	69	70	75	76
29	Gorontalo	1171.7	1181	1192.7	1213.2	104	105	99	101
30	West Sulawesi	1419.2	1436.8	1458.6	1481.1	85	86	88	89
31	Maluku	1848.9	1862.6	1881.7	1920.5	39	40	41	42
32	North Maluku	1282.9	1299.2	1319.3	1337.1	40	41	40	41
33	West Papua	1134.1	1156.8	1183.3	1187.3	11	11	12	12
34	Southwest Papua	591.069	591.06	600.00	611.352	15,2	11	8	10
35	Papua	4303.7	4355.4	4418.6	4482.7	13	14	14	14
36	South Papua	513.617	517.623	517.623	517.623	7,27	7,27	7,27	7,27
37	Central Papua	1.492.300	1.197.497	1.351.659	1.351.659	22	22	22	22
38	Papua Pegunungan (Highlands)	1.467.060	1.467.060	1.417.811	1.400.000	29	31	29	29
	Indonesia	**270203.9**	**272682.5**	**275773.8**	**278696.2**	**141**	**142**	**146**	**147**

Source: Statistics Indonesia, 2025

Indicator 29: Land-use mix

Data is described in the report.

Indicator 63: Number and percent of new population “accommodated” in a plan or city extension

Data is described in the report.

2.2.5 Enhance urban planning and design capacity, and training for urban planners at all levels of government

Indicator 64: Number of urban planners per 100,000 persons

Data is described in the report.

2.2.6 Strengthening the role of small and medium-sized cities

Indicator 20: Does your country have a National Urban Policy or Regional Development Plan that (a) responds to population dynamics, (b) ensures balanced territorial development, and (c) increase in local fiscal space [1]

Data is described in the report.

2.2.7 Implement a sustainable multi-modal public transport system including non-motorised options

Indicator 14: Proportion of population that has convenient access to public transport, by sex, age, and persons with disabilities

Data is described in the report.

2.3 Means of Implementation

2.3.1 Mobilization of Financial Resources

2.3.1.1 Develop a financing framework for implementing NUA at all levels of government

Indicator 65: Existence of national structure or office or committee for implementing the New Urban Agenda

Data is described in the report.

2.3.1.2 Mobilise internal sources of funding and broaden the revenue base of local and regional governments

Indicator 58: Percentage of the total budget that the local / sub-national government have discretion over to decide on priorities (financial autonomy)

Refer to section 2.1.1

Indicator 59: Percentage of the local / sub-national government's financial resources generated from endogenous (internal) sources of revenue

Refer to section 2.1.1

2.3.1.3 Formulate a good financial transfer system from central government to local government and local government based on needs, priorities, and functions

Indicator 66: Stable existence of "transfer formula" in the last 5 years, without major changes, meaning reductions of more than 10%

Refer to section 2.1.2

2.3.1.4 Mobilise and establish financial institutions (multilateral institutions, regional development banks, regional and sub-national development funds; co-financing mechanisms, etc.) for urban financing

Indicator 67: Existence of at least one finance or infrastructure fund available for local / sub-national governments

Data is described in the report.

Indicator 68: Percentage of the local / sub-national government's financial resources generated from financial intermediaries such as multilateral institutions, regional development banks, sub-national and local development funds, or pooled financing mechanisms

Data is described in the report.

2.3.2 Capacity building

2.3.2.1 Expand opportunities for inter-city co-operation and promote exchange of urban solutions and mutual learning

Indicator 69: Number of cities participating in city-to-city partnership programmes

Data is described in the report.

Indicator 70: Number of public water and sanitation utilities participating in institutional capacity development programmes

Table II. 2 Increased capacity of public water and sanitation utilities, 2020-2024

Sanitation Technical Guidance	Year					Number of Services/Agencies/UPTD 2020-2024
	2020	2021	2022	2023	2024	
Solid Waste	102	112	96	54	100	**464**
Waste Water	122	145	106	90	126	**589**

Source: Ministry of Public Works, 2025

Table II. 3 Recapitulation Technical Guidance in Sanitation, 2020-2024

Amount	2020	2021	2022	2023	2024	Amount
Solid Waste						
District /City	86	84	84	51	83	388
Province	11	11	11	9	19	61
Waste Water						
District /City	114	110	76	82	113	495
Province	4	18	11	2	10	45

Source: Ministry of Public Works, 2025

2.3.2.2 Promote capacity building as a multi-faceted approach to formulating, implementing, managing, monitoring, and evaluating urban development policies

Indicator 71: Percentage of cities and sub-national governments with staff trained in formulation, implementation, managing, monitoring, and evaluation of urban development policies

Data is described in the report.

2.3.2.3 Strengthen the capacity of all levels of government to work with vulnerable groups to participate effectively in decision-making on urban and territorial development

Indicator 16: Proportion of cities with a direct participation structure of civil society engagement in urban planning and management, which are regular and democratic

Data is described in the report.

2.3.2.4 Support local government associations as promoters and providers of capacity building

Indicator 72: Size of budget of local government associations

Data is described in the report.

2.3.2.5 Promote capacity-building programmes in the legitimate use of land-based income and finance

Indicator 73: Number of people who have been trained in the use of land-based revenue and financing tools by UN-Habitat or other institutions

Data is described in the report.

2.3.2.6 Promote local and regional government capacity building programmes in financial planning and management

Indicator 74: Percentage of cities/sub-national staff trained in financial planning and management

Data is described in the report.

2.3.3 Innovation and Information Technology

2.3.3.1 Development of participatory data and user-friendly digital platforms through e-governance and citizen-centred digital governance tools

Indicator 75: Percentage of cities utilizing e-governance and citizen-centric digital governance tools

Table II. 4 Amount cities / districts participating in the smart city program, 2024

City/ District	Total Amount	Participation in Smart city program	Percentage
City	98	77	78.57%
Regency	416	174	41.83%
Total	514	251	

Source: Ministry of Communication and Information, 2024

2.3.3.2 Use of digital tools, including Geospatial Information Systems (GIS) to improve urban and territorial planning, land administration, and access to urban services

Indicator 76: Percentage of cities utilizing geospatial information systems

Data is described in the report.

2.3.3.3 Strengthen capacity at all levels of government to effectively monitor the implementation of urban development policies

Indicator 77: Number of countries that have participated in capacity building workshops on New Urban Agenda indicators

Data is described in the report.

2.3.3.4 Support all levels of government in data collection, disaggregation, and analysis

Indicator 77: Number of countries that have participated in capacity building workshops on New Urban Agenda indicators

Data is described in the report.