Republic of Indonesia
Voluntary National Review

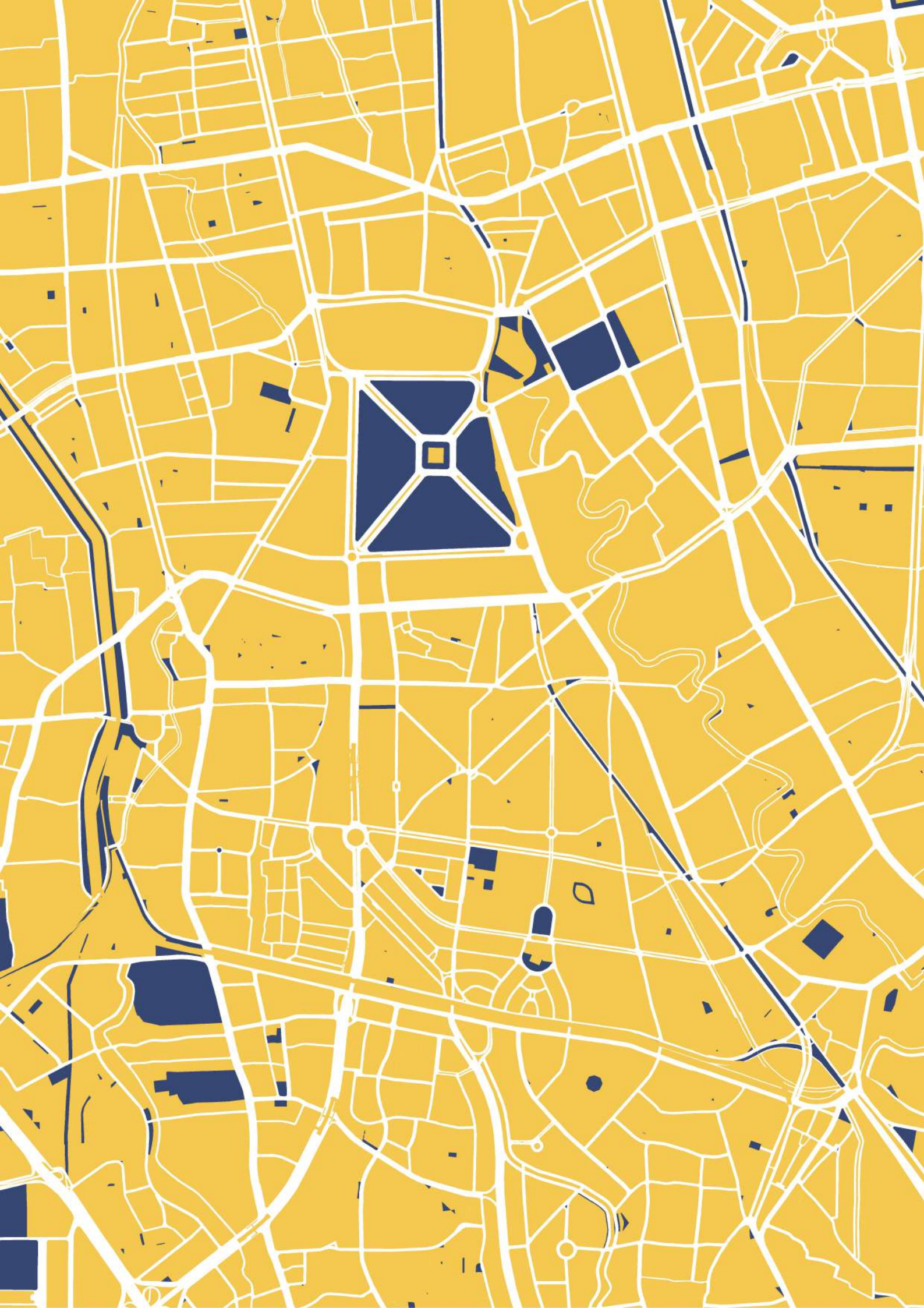
for Implementation of

NEW URBAN AGENDA

2021

Provisional Report

Republic of Indonesia



REPUBLIC OF INDONESIA
VOLUNTARY NATIONAL REVIEW FOR IMPLEMENTATION OF NEW URBAN AGENDA
PROVISIONAL REPORT
2021

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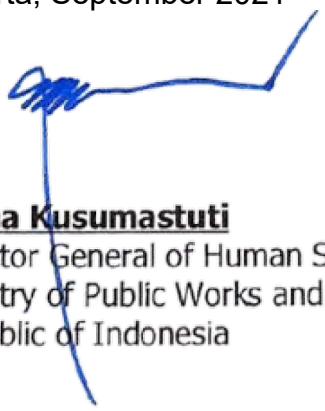
PREFACE

As a concise version of the full report, this provisional report is submitted in order to provide a preliminary view of how Indonesia has implemented New Urban Agenda and has achieved a considerable positive outcome. As the title of this report entails, subject to further processes (i.e. verification and formal approval), it shall be complemented with a full-length final report towards the end of the year. The structure of this report follows the report guideline and contains data as has been determined in the NUA indicators provided by UN-Habitat.

As the focal point of UN-Habitat issues in the country, the Ministry of Public Works and Housing (MoPWH) cq the National Habitat Secretariat is responsible for preparation and formal submission of the national report on the implementation of the New Urban Agenda. However, due to the large amount of data necessary to be reported and the multi-faceted aspects of NUA indicators, there are sequential processes to follow through. With data sources originating from various ministries and institutions as well as sub-national governments, stakeholder partnerships are undoubtedly important for reporting the implementation of New Urban Agenda in the future.

In the process of writing this report, secondary data were obtained from publicly available sources such as official websites and annual reports. Many statistical data were available from the survey conducted by the Central Bureau of Statistics as well as SDGs reports by the National Development Planning Agency and published on their websites. From within the Ministry of Public Works and Housing itself, additional formal data requests were sent out to sector directorates and we were thankful to receive full cooperation. We were able to include some of the good practices published in this provisional report. Nevertheless, this report merely serves to show that half of the detailed achievements have been gained by implementation of NUA in Indonesia. A more thorough story shall be made available in the upcoming final report.

Jakarta, September 2021



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ABBREVIATION

AIM	: Association of Indonesia Municipalities (Asosiasi Pemerintah Kota Seluruh Indonesia / APEKSI)
APJII	: Asosiasi Penyelenggara Jasa Internet Indonesia or Indonesian Internet Service Provider Association
CBS	: Central Bureau of Statistics
CEA	: Creative Economy Agency
BRT	: Bus Rapid Transit
CSR	: Corporate Social Responisibility
GDP	: Gross Domestic Product
GRMS	: Governmental Resource Management Information System
IAI	: Ikatan Arsitek Indonesia or Indonesian Architect Association
IAP	: Ikatan Ahli Perencanaan or Indonesian Planners Association
Kotaku	: Kota Tanpa Kumuh or City Without Slum
LABA	: Local Annual Budget Allocation
LAWP	: Local Annual Working Plans
LIP	: Low Income People
LMDP	: Local Mid-term Development Plan
MRT	: Mass Rapid Transit
MoAASP	: Ministry of Agrarian Affairs and Spatial Planning
MoEMR	: Ministry of Energy and Mineral Resources
MoF	: Ministry of Finance
MoFA	: Ministry of Foreign Affairs
MoHA	: Ministry of Home Affairs
MoPWH	: Ministry of Public Works and Housing of the Republic of Indonesia
MoSA	: MoSA
NDMA	: National Disaster Mitigation Agency
NDPA	: National Development Planning Agency / Ministry of National Development Planning
NUA	: New Urban Agenda
Perda	: *Peraturan Daerah* or Local Regulation
Permen	: *Peraturan Menteri* or Ministerial Regulation
Perpres	: *Peraturan Presiden* or Presidential Regulation
NMDP	: National Medium-Term Development Plan
RTH	: *Ruang Terbuka Hijau* (Green Open Space)
SDGs	: Sustainable Development Goals
SIUP	: *Surat Izin Usaha Perusahaan* (Business License)
SOIC	: State of Indonesian Cities
Susenas	: *Survei Sosial Ekonomi Nasional* (National Socio-Economic Survey)
MSME	: Micro Small Medium Enterprise
VNR	: Voluntary National Review

EXECUTIVE SUMMARY

The implementation of New Urban Agenda in Indonesia has been initiated by various entities concerned with the current state of urban development, not only the government but also community organizations, professional association and research organizations. At the policy dimensions, government of the Republic of Indonesia incorporates implementation of New Urban Agenda (NUA), as part of SDGs, throughout the national development agenda. With the enactment of Presidential Decree No 59 Year 2017 about Implementation Achievement of Sustainable Development Goals, NUA is framed into national action plans and policies. Its implementation is monitored and reported. It also recognizes the roles of the national level of government as well as the local level. This is a massive and collaborative endeavor between government and non-state actors designed to serve 264 million people.

The Explanation of Law no. 1 year 2011 on Housing and Human Settlement states the active participation of Indonesia in the international community, including activities of the United Nations Center for Human Settlements (UN-Habitat). The spirit of international commitments such as Agenda 21 and the Habitat Agenda that housing is a basic right and adequate and affordable housing for all are in line with Law no. 1 year 2011. Furthermore, the goal of the National Long-term Development Plan 2005-2025 (Law no. 17 year 2007) is to reach cities free of slums by 2025. With the enactment of Presidential Decree No 59 Year 2017 on Implementation the Achievement of Sustainable Development Goals, SDGs has been institutionalized from the highest national level to subnational entities, and integrated into national and subnational development planning. The vision, principles and commitments of the New Urban Agenda are all linked to the 17 goals of the Sustainable Development Goals, in particular Goal 11 "Make cities and human settlements inclusive, safe, resilient and sustainable' and its indicators that are referred to in this report.

Part 1 Transformative Commitments

Sustainable Urban Development

Transformative commitments for sustainable urban development are strongly kept and put into action. Indonesia has continuously been increasing social inclusion in order to ending poverty. Steady decrease of poverty rate, both in urban and rural areas, was partly contributed by social support programs and massive efforts to reduce inequal access to basic needs. Inequality between men and women, as well as people with disabilities, in employment has continued to be addressed. Non-discrimination principles regarding gender inequality and toward marginalized communities have continued to be incorporated into legislations. Efforts to ensure equal access to public spaces are tackled by providing cycling lanes and bike sharing stations. To ensure pedestrians can walk safely and have pleasant walking experience, several road spaces have been reclaimed to widen sidewalks and some other corridors are transformed as car-free-days area on the weekend.

For housing, despite the fact that being the highest expenditure per capita to other commodities, more than one third of Indonesian population are still living in slums, informal settlements or inadequate housing. The government has initiated the One Million Houses Program in 2015 to overcome the housing shortage by construction of housing (rental and ownership) by public, private, sector, and community. To increase access to adequate and affordable housing, the government liquidity facility has reduced the interest rates to 5%. Inequality in housing has been reduced since informal workers can have access to and women are found to have larger proportion of property ownership. Slum areas have continuously been upgraded for the last five decades with the latest program being integrated to community empowerment.

In a similar important matter, to fulfilling housing needs, basic services provision is also improved. It is shown on more population having access to drinking water, proper sanitation, and solid waste disposal. Increased access was made available through various programs, such as Drinking Water Grant and Improvement of Solid Waste Management. Safe and efficient public transport system has also been improved with the provision of Bus Rapid Transit and TOD. Complimentary to public transport provision, free school bus, school safety zone, and school safety route schemes have also been implemented. Access to modern renewable energy is also being improved by building solar and ocean wave power plants as well as processing waste to refuse derived fuel. ICT in Indonesia has been accessed by more than 171 million people and listed as the 4th country with the largest population supported by fiber optic network within the Palapa Ring project.

Sustainable and Inclusive Urban Prosperity

For urban prosperity and opportunities for all, inclusive economic growth was steadily increasing. In addition to large proportion of informal employment, 99.99% of Indonesian enterprises are categorized in Micro, Small and Medium Enterprises which contributed to more than half of GDP. Many efforts have been made to ease business permits, including the shortened process of getting business license and OSS, and the Job Creation Law.

Sustainable urban prosperity is ensured by diversification, including the creative economy dominated by culinary, fashion, and kriya subsectors in five provinces and digital economy growth with several unicorn e-commerce. Additionally, capacity development to increase technical and entrepreneurial skills are given and resulted in more than 80 % of youth to have ICT skills. Based on spatial point of view, 11 new city developments outside Java Island are in place.

Environmentally Sustainable and Resilient Urban Development

Notable efforts to create environmentally sustainable and resilient urban development have also been done both on land and coastal areas. Indonesia has committed to reduce GHG emission, with energy, building and waste as the leading sectors, and kept increasing budget allocation for climate change. Disaster early warning systems, multi-hazard mapping and spatial planning have been utilized to reduce disaster risk.

Sustainable management and use of natural resources, domestic material consumption in particular, have also been encouraged in addition to resource conservation and waste reduction, reuse and recycling. Smart city approach that leverages digitization, clean energy and technologies has been implemented in various ways. In building sector, for example, with energy efficiency approach.

As a supportive framework, decentralization which took place since 1998 allows for selected authorities given to municipalities/regencies. It also enables subnational and local governments to cooperate with national government in multi dimensions. Housing provision, urban policy development and planning, as well as mobilization of endogenous resources and revenues. Direct citizen involvement in participatory planning have also been made possible through *musrenbang*, by which women and children needs are acknowledged and their aspirations are privileged. In infrastructure provision, women are also involved in sanitation and waste management projects.

In planning and managing urban spatial development, housing is integrated to urban development plans, culture is appreciated and incorporated into heritage city programs. Urban planner as a multi-disciplinary profession is developing rapidly to incorporate architect as well as urban designer. Role of small and intermediate cities are also increasing.

Implementation of sustainable multimodal public transport systems including non-motorized options has been translated into TOD.

Part 2 Means of Implementation

Building Governance Structure

As means of NUA implementation, endogenous (internal) sources of finance have been collected reaching to more than 60% proportion of domestic funding. Financial transfers have also been implemented to local governments from the national government in addition to multilateral cooperation. City-to-city cooperation has been established by nearly 60 cities allowing for developing capacities and fostering exchanges of urban solutions and mutual learning role of ICT is prominent. Ultimately, ICT has made a prominent role in the process to implement New Urban Agenda, including in housing provision, slum upgrading program, and spatial planning.

Apart from this successful implementation of NUA, however, impact of Covid-19 pandemic to every aspect of urban development is unavoidable. Like many countries around the world, Indonesia has been seriously affected by the Covid19 pandemic. Before the pandemic, progress was being made on the implementation of the Sustainable Development Goals (SDGs). Significant progress was made in reducing poverty and inequality, improving connectivity and maritime development, and improving infrastructure for information and technology. However, these achievements were not happening fast enough and since the pandemic, progress was either stalled or reversed. Poverty and unemployment have been slightly increased in urban areas even though social security expenses were made higher. Though Indonesia is well-known for its large proportion of informal employment, the pandemic has contributed to an increase of informal employment in service and manufacturing sectors due to many companies and the service sector have had to close their businesses or shift production. Nevertheless, capacity development as well as ICT support alongside the National Economic Recovery Program have been put in place as a sustainable strategy to overcome the negative impacts.

Other challenges remained. The challenges include geographical factors and the characteristics of multi-disaster threats, increased population which potentially exposed to disasters, and the lack of disaster preparedness. Big amount of critical land to be restored, lack of energy diversification and inefficient use of natural resources. Other challenges include low tax compliance, inadequacy of taxation human resources, and the need to increase the fixed broadband network. Indonesia's Development priorities include strengthening human development through poverty reduction and basic services improvement; reducing regional disparities through connectivity and maritime development; increasing economic value added and job creation; and overcoming the digital divide. Since 2016, and on some aspects maybe prior to that, Indonesia shows progression in all New Urban Agenda. The outstanding performance is confirming that Indonesia is moving towards successful achievement of the 2036 Agenda.

Illustrative Actions

Several notable good practices in the implementation of NUA show that commitment to social inclusion and ending poverty has been taken into actions at the local level. Inclusion in green open space and public space can be found in Wonosobo and Bandung. Access to affordable and adequate housing as well as basic services have been enjoyed by residents of Kendal, Mataram, Malang, Bogor, Surabaya, Cilacap, and Tuban. To ensure sustainable and inclusive urban prosperity and opportunities for all, cities of Kediri, Bandung, and Cimahi provide useful examples. Efforts to create environmentally sustainable and resilient urban

development are continually progressed in Sigi, Semarang, and nationally to cope with Covid-19 pandemic. Commitment to planning and managing urban spatial development is prominent at the borders of Indonesia. It is complemented with integration of culture where the government of Siak is one of the successful pioneers. The capital city of Jakarta also leads in the practice with its transit oriented development at Dukuh Atas. Means of implementation is particularly dominated by the utilisation of ICT, where it has helped in the distribution of subsidy houses in three aspects: updating housing stocks data by developers, providing detailed housing stocks data for buyers, and assuring construction quality of houses. It should be noted though, that these cases are merely some of the tipping points of good practices at the local level. Such cases shall be used as a reference to implement NUA in practice, to spark ideas on implementation on other places and other contexts.

STAKEHOLDER PARTNERSHIPS AND COMMITMENTS

Indonesia has made a prompt response to the birth of the New Urban Agenda by translating the New Urban Agenda (NUA) to Bahasa Indonesia in 2017. Additionally, Indonesia has also written eight Practical Guidelines for Implementing NUA through collaboration of the Ministry of Public Works and Housing of the Republic of Indonesia, Kemitraan Habitat, and Ruang Waktu Knowledge Hub. The books consist of 8 series: 1) Introduction to NUA, 2) Housing and Basic Services, 3) Disaster and Urban Environment, 4) Urban Governance, 5) Transportation and Urban Mobility, 6) Spatial Planning and Urban Development, 7) Economic Development and Urban Financing, and 8) Urban Socio-cultural.

In 2019, the Guideline on Disaster and Urban Environment was tested in DKI Jakarta and Kupang, East Nusa Tenggara, through collaboration between KARINA, RuangWaktu, and Kemitraan Habitat. Jakarta Berketahanan was also involved in the DKI Jakarta testing. Through a focused group discussion, stakeholders identified priority issues and policy options relevant to the implementation of NUA, within the sector of disaster and environment in particular. In addition, this discussion forum also gained inputs to improve the guidelines.

At the national level, the President appointed the Ministry of National Planning and Development as coordinator of the SDGs Implementation team, and setting up a national secretariat on SDGs, guidelines for coordination, planning, monitoring and evaluation of SDGs in Indonesia. This includes follow up of action plans by ministries and local governments. Since NUA has adopted several SDGs, the Habitat National Secretariat under the Ministry of Public Works and Housing works closely with the SDGs secretariat.

COVID-19 RESPONSE

The Covid-19 first case was detected in Indonesia in early March 2020 and quickly spread across the country. The transmission of Covid-19 virus is significantly higher in high density urban areas compared to rural areas. Up until July 2021, 25% of total number of cases are found to be centered in DKI Jakarta as Indonesia's capital and the rest in other most urbanized areas in the country, according to Indonesia's Covid-19 Control Task Force. West Java (18%), Central Java (11.1%) and East Java (8.7%), where major metropolitan areas are located, are among the highest cases while in other areas the transmission cases are below 5%. One of the factors of high transmission in these urban areas is due to the high mobilization across city boundaries. Another factor is due to circular migration during holidays which is bound to result in streaking in addition to cases.

The government of the Republic of Indonesia has made major efforts responding to Covid-19, by providing healthcare, financial assistance, as well as economic recovery programs. Soon after the first case of Covid-19 in Indonesia was found, the Control Task Force was established. At the end of March 2020, the Government Regulation No. 21 of 2020 was enacted that allows local governments to carry out the emergency programmes in health services under the approval of the Minister of Health.

Local governments have to promptly deal with the crisis; several provinces and cities that had the highest number of the Covid-19 cases carried out both Large-Scale Social Restrictions / LSR (*Pembatasan Sosial Berskala Besar / PSBB*) and Micro-Scale Social Restrictions / MSR (*Pembatasan Sosial Berskala Kecil / PSBK*) to break the chain of transmission of the virus in Indonesia. The social restrictions included the prohibition of on-campus school activities, limitations for on-site office work in exception of essential sectors, limitations on public facilities and transportation, and prohibitions on other social activities including religious activities, all in order to keep the people at home and minimize risk of infection. These provinces and cities include Jabodetabek Metropolitan Area (DKI Jakarta Province, Bogor, Depok, Tangerang, Bekasi), West Sumatera Province, Bandung Metropolitan Area (Bandung, West Bandung, Sumedang and Cimahi), Tegal City, Makassar City and Pekanbaru City. In total, there were 2 provinces and 16 cities that carried out the restrictions in April 2020.

The Law No 2 of 2020 on National Financial Policy and Financial System Stability for Covid-19 Pandemic Management forms as a legal basis to change other regulations designated to expedite resource allocations in response to the Covid-19 pandemic. The regulations allow for adjustment of Local Annual Working Plans and Local Annual Budget Allocations without approval from local House of Representatives. Policies prioritize refocusing of programmes/activities towards social economic protection. Local budgets are redirected toward emergency programmes in health service, job creations, subsidies and grants for low-income families.

Ministerial budget accordingly has also been reallocated and refocused since mid-year of 2020 in order to be handed over to healthcare and economic recovery programs; at least 38% of ministerial budgets were reallocated. In July 2021, further action was taken in order to prevent the spreading of the new Delta variant of Covid-19 outbreak through tighter activity and curfew program known as *Pemberlakuan Pembatasan Kegiatan Masyarakat (PPKM)* and taking travel and meeting budgets out of state budget – this means all ministries are no longer allowed to hold travelling activities as well as offline meetings outside the office.

During the pandemic, the economic declines cannot be avoided. Data shows a correlation between social and mobility restrictions to poverty: Provinces with high reduction

of mobility to work tend to have greater increase of poverty. People who work in informal sector as well as the industry are more likely to lose income due to inability to work from home. Government responded in several programmes to protect the social and economy conditions, especially toward the vulnerable groups. The government have initiated programmes, through the collaborative efforts between the MoSA and the MoF, such as the Aspiring Family Program (PKH), Non-cash Food Assistance/Staple Food Card, and Social-Cash Assistance to household. Other assistance is also provided in the forms of Pre-Work program, electricity discount, and internet package to students and teachers. These programs were distributed to a large number of beneficiaries in 34 provinces and meant to become a trigger to drive the national economy and strengthen people's purchasing power in order to withhold the national economic growth in positive direction.

Furthermore, other than the regulations that aim for the large-scale activity restrictions, individuals and communities actions were also taken during the pandemic. Each individual is encouraged to adjust the health protocol in their everyday life called 5M; *Mencuci tangan* (wash hands), *Memakai masker* (use mask), *Menjaga jarak* (keep the minimum distance), *Menjauhi kerumunan* (avoid crowds), and *Mengurangi mobilitas* (reduce the mobility). The protocol aims for the individuals to protect from the virus. Meanwhile, the 3T (testing, tracing and treatment) system continues to be implemented with the help of the communities; to break down the transmission chain of the virus.

Alongside with the health protocols, the vaccinations program started in early January 2021 aiming for vulnerable people as the prioritized groups. The phasing and determination of priority groups for vaccine recipients is carried out by taking into account the World Health Organization (WHO) Strategic Advisory Group of Experts on Immunization (SAGE) Roadmap as well as a study from the National Immunization Expert Advisory Committee (Indonesian Technical Advisory Group on Immunization). The first stage of the vaccination program was done exclusively for frontline medical workers in January-April 2021, followed up with the second stage for public workers and elderly people. Meanwhile, the vaccinations for the general public started in early July 2021 which was then followed by children aged 12 years old and above in mid July 2021. In total, 58 million and 32 million people have received the first dose and second dose respectively in late August 2021 and the vaccination rate has reached 1 million people per day. Majority of vaccinations are managed centrally through government healthcare system, which in the end have also incorporated digitalization on registry and certification process. Nevertheless, vaccination injections have also been managed by other parties, such as private companies.

Indonesia has also made an effort to increase the Bed-Occupancy-Ratio of hospitals by retrofitting flats into emergency hospitals. The Nagrak low-cost apartment complex (Rusunawa) in North Jakarta and Pasar Rumput Rusunawa in South Jakarta are two of the latest flats converted into COVID-19 isolation facilities reserved for asymptomatic and patients with light COVID-19 symptoms. The former athletes village emergency hospital in Kemayoran, Central Jakarta, which had a capacity of at least 7,000 patients, designated to treat moderate and severe cases.

In July 2021, further mobility restrictions were taken in order to suppress the increasing rate of infection and prevent the spreading of the new Delta variant of Covid-19 outbreak through tighter activity and curfew program known as Emergency Public Activity Restrictions (*Pemberlakuan Pembatasan Kegiatan Masyarakat / PPKM darurat*). These emergency restrictions are enacted on varying levels depending on the severity of cases in a region. Minister of Home Affair instruction (*Inmendagri*) No. 15, 18, and 24 year 2021 stipulate the implementation of *PPKM Darurat* in Java and Bali. Furthermore, Sumatera, Kalimantan, Sulawesi, Nusa Tenggara, Maluku, and Papua PPKM concept regulated in Minister of Home Affairs Instruction No. 25/2021. Finally, Covid-19 optimization was

managed by handling command posts on micro-level and the implementation of PPKM level 3 to 1 which was set in Instruction of Minister of Home Affairs No. 15 and 26 the year 2021. As a result, the trend of Covid-19 active cases had dropped from 574,135 cases at the highest point on 24 July to 273,750 cases on 24 August 2021.

The SDGs national VSR 2021 reported that local government's responses related to the pandemic in general and in relation to SDGs attainment. More than half surveyed local governments (LGs) mentioned that they have taken steps to refocus development projects and budget reallocation to address the Covid-19 pandemic situation. Budget reallocation is the most immediate action taken to anticipate the pandemic impacts, aiming at providing direct financial support for most vulnerable residents. Meanwhile, refocusing development vision and missions is least often taken by local governments considering their longer impacts to local development outputs and outcomes. Such an anomalous situation results in delaying development programmes/activities set in LMPDs. This leads some local governments to re-examine LMPDs and readjust them. Despite the Covid-19 pandemic condition that affected multiple sectors, the technology sector continues to soar high. Digitalization was seen as a solution to meet people's basic needs in the middle of mobilization restrictions, creating a new lifestyle in the new normal era.

1

Transformative Commitments for Sustainable Urban Development

1.1 Sustainable Urban Development for Social Inclusion and Ending Poverty

1.1.1 Social Inclusion and Ending Poverty

The government of Indonesia has had a far-reaching effort in ending poverty in many dimensions not only in physical but also social and structural. Poverty related to basic services provision, related to access to land and providing multiple opportunities are being unlocked. Poverty eradication related to vulnerable groups, are being promoted as well.

1.1.1.1 Eradicate poverty in all its forms

Recognizing the level of poverty is one of the information that is continuously being monitored and evaluated. It has become one of the key indicators on measuring progress of development. Based on - Statistics Indonesia, through National Socio- Economic Survey (Susenas) records the proportion of population below the national poverty line decreased from 11.1% in 2015 to 9.2% in 2019. The decrease of extreme poverty rate is partially related to the expanding government-initiated social support on Hope Family Program or *Program Keluarga Harapan (PKH)*. In 2020, however, such proportion increased to 10.19%. The worrying increase of poverty rate is related to the Covid-19 pandemic. It has made it harder to reach the previous prediction on poverty eradication.

In urban as well as rural areas, poverty rates have decreased within the period of 2015 to 2019 similarly of 0.7%. Moving forward to 2020, the poverty rate in the urban areas increases about 1.32% while in rural areas is about 0.60%. Poverty rate in rural areas surprisingly moves up slightly to 13.2%. For urban areas, the high rate of infection and restricted movement has reduced economic activities. This led to job losses especially in labor intensive sectors and triggered a wave of out migration to rural areas. Such vulnerability shown in urban areas are previously thought to have positive effects on rural areas as productive workers create economic opportunities. But this does not last long, as the unemployed need time to sort and configure whether they stay or move back.

The Covid-19 pandemic has brought the Indonesian poverty level equal to what it had been in 2017. The national government has stepped up with emergency funding of IDR200 trillion for social security toward poverty alleviation. Funding for social security has increased by 4.4% from previously 13.7% in 2015 to become 18.1% in 2020 especially due to counter the impact of Covid-19 pandemic.

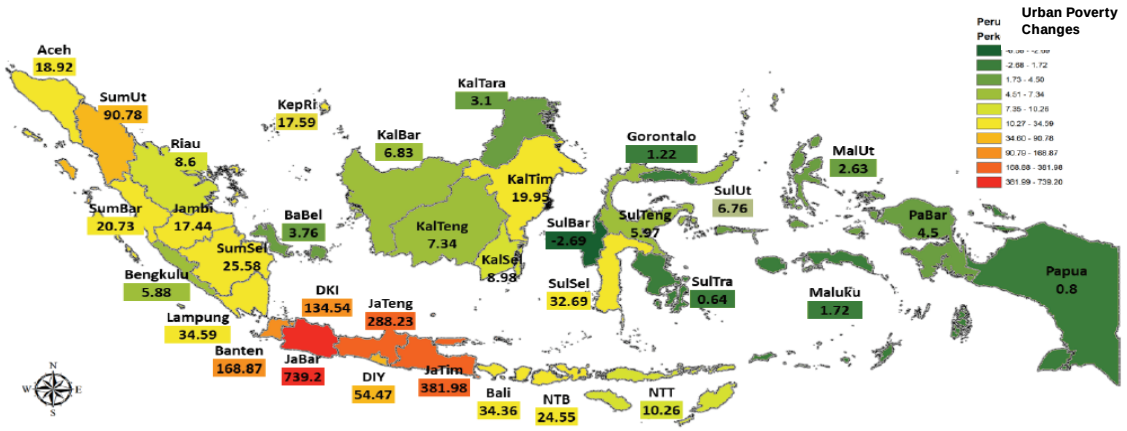


Figure 1. 1 Changing Numbers of Urban Poor Population Among Provinces in Indonesia (September 2019-2020)

Source: (National Development Planning Agency/Bappenas, 2021)

Figure 1.1 shows a changing number of urban poor among provinces between September 2019 - 2020. The highest increasing number of urban poor takes place in Java Island of nearly 80% (1.7 million people). It is followed by those in Sumatera, Kalimantan, Sulawesi and Eastern Indonesian islands. The overwhelming burden for social support will be felt disproportionately among islands. The total number of poor people in Indonesia is 25.14 million, whereas the number of urban poor is 9.99 million in 2019. The latter number is down by 0.2% from that of 2018. Meanwhile, the rural poor are relatively larger than the urban poor, that is 15.15 million people.

1.1.1.2 Address inequality in urban areas by promoting equally shared opportunities and benefits

Sustained, inclusive and sustainable economic growth is a key element of sustainable urban and territorial development and that cities and human settlements should be places of equal opportunities (NUA §43). Government of Indonesia has been using the concept of Human Development Index (HDI), initiated by UNDP, as a measuring approach when assessing progress of development.

One of the important measurements is equality of opportunities and benefits between men and women. This can be measured among others by Gender Development Index / GDI *(Indeks Pembangunan Gender*/ IPG). In 2018, the GDI in Indonesia was 90.99 on a scale of 0-100. In 2019, the GDI has increased by 0.08% but then slightly decreased by 0.01% to become 91.06 in 2020. Overall, the GDI is closer to 100 % and indicates a smaller development gap between men and women (Ministry of Public Works and Housing, 2017) (Statistics Indonesia, 2021). Other measurement that is increasingly used is the Gender Empowerment Index (GEI) which focuses on women participation in politics, public decision making and economic activities. as of 2018, GEI of Indonesia has reached to 72.1 and continue to increase to 75,2 (2020). When looking at the distribution among provinces, there is no indication that the more urbanized the provinces the higher their GEIs. For example, several provinces in Java island, the highly urbanized island, still have GEI lower than that of the national average. If looking at the representation of women within the three fields, about 47% of women have professional positions, 35% engage in economic activities and 17% are active in parliaments.

The national government has also made a breakthrough step in reducing employment inequalities. For example, there has been a special allocation for recruiting persons with disabilities for government offices. In addition, there are also affirmative action for recruiting persons from the eastern part of Indonesia: Papua and West Papua.

Unemployment issues are also at the core of addressing inequality. National Labor Survey in February 2021 records a downward trend in open unemployment rate from 6.18% in 2015 to 5.23% in 2019. The pandemic in 2020, the unemployment rate in Indonesia bounces back to 7.07%. In urban areas, the unemployment rate was consistently higher than that in rural areas. Higher education levels of urban labor made them more likely to report their unemployment status than their counterparts in rural areas. During the covid 19 pandemic, higher unemployment rate in urban areas is likely due to the large number of jobs lost because of the mobility restrictions and their impacts on labor-intensive, service sectors that operate in many urban areas. Meanwhile, in rural areas where the majority of economic activities are engaged in the agricultural and extractive sectors, the open unemployment rate grows lesser than that in urban areas. Labor movement from urban to rural areas intensifies during the COVID-19 pandemic due to job losses in urban areas or in service sectors including tourism sector.

The overall measurement of equality, Gini Coefficient, in rural and urban areas. The Gini index in Indonesia has decreased from 0.402 in 2015 to 0.380 in 2019. During this

period, the Gini coefficient decreased rapidly in urban areas (-8.6%) compared to rural areas (-5.7%). Indonesia's economic growth has increased more equal opportunities for different groups to participate in economic activities in rural rather than urban areas

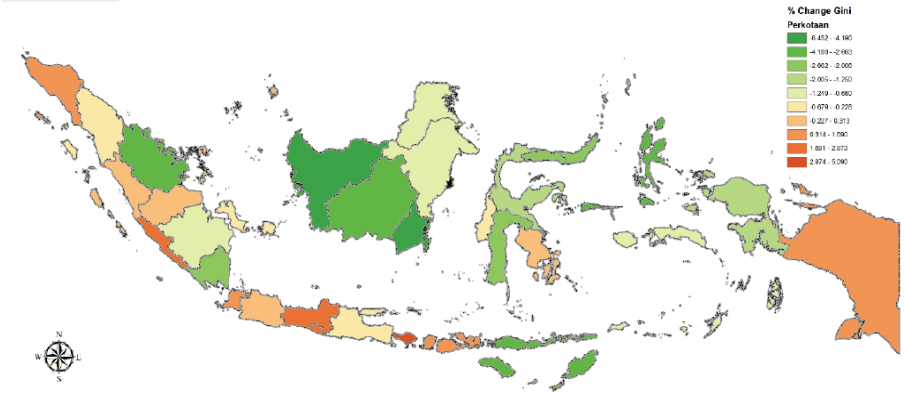


Figure 1. 2 Percentage of change in Urban Gini Ratio (September 2019-2020)
Source : (National Development Planning Agency/Bappenas, 2021)

Figure 1.2 shows percentage of change in Urban Gini Ratio among Provinces, between 2019 and 2020. The redder color means a higher percentage of Gini ratio. The location of the higher percentage of Gini Index change takes place scatteredly. Kalimantan, part of Sulawesi dan Maluku experienced a lower change of Gini Index. While Java and part of Sumatera and of Papua experiences higher change of Gini ratio.

1.1.1.3 Enhance social inclusion of vulnerable groups (women, youth, older persons and persons with disabilities and migrants)

Indonesia is committed to promoting increased security of tenure for all, permitting a continuum of land and property rights, and recognizing that security of land tenure for women as key to their empowerment, and setting up effective administrative systems (NUA §35). The focus on land tenure reflects the recognition that land is a key economic unit forming the basis for its activities. It also acknowledges that women's access, ownership of and/or control of land is critical for poverty reduction, food security, inclusiveness and overall sustainable development objectives.

Data on women recognized as having a legal right to property inheritance and ownership is useful to indicate social inclusion in housing. There has been a tendency of higher numbers of female property owners in comparison to male even though by a slight difference (National Development Planning Agency/Bappenas, 2021). Throughout the period of 2015 to 2020, property ownership has only slightly changed. From previously 82% of men and 84% of women in 2015-2016, it has then rather been constant for three years on approximately 79% of men and 81% of women. In 2020, proportion of female property owners is 82.14% while male is 79.71%.

The New Urban Agenda calls for adequate housing for all (NUA §31). Such commitment can be achieved only if there is disappearing barrier to discrimination in housing. As the third biggest democracy in the world, Indonesia is highly committed to exercise democracy, as well as to enforce the law and non-discriminative practices, especially towards vulnerable groups to achieve an inclusive development. Indonesia has established the Indonesian Democracy Index (IDI) since 2009, and a province-based democracy indexes have been developed since 2010. IDI scored 74.18 and categorized "Moderate" in 2017, compared to 2016 score of 70.09 (increased by 4.09). Since 2017, it has kept increasing to 74.52 in 2018 and to 76.34 in 2019 (Statistics Indonesia/BPS, 2020).

This IDI score is measured using three aspects; Democratic Institution Index, Civil Liberty Index and Political Rights Index. In terms of data for social inclusion of vulnerable groups, freedom of discrimination variable in particular which belongs to Civil Liberty Index is useful[1]. Freedom of discrimination has been increasing from 90.74 in 2017, to 91.77 in 2018, and 92.35 in 2019. In more detail, the Civil Liberty Index of IDI consisted of 8 (eight) indicators. Data on presence of national legislation forbidding discrimination in housing, access to public facilities and social services on the basis of race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or other status is mostly correlated to two indicators: written rules limiting freedom of religious activities; and written rules discriminating gender, ethnic and groups. While the first indicator had been with a score of 82.23 in 2017, the second indicator has increased from 91.67 in 2017 to 92.16 in 2018 and 92.65 in 2019. While the indicator of written rules discriminating gender, ethnic and groups have been identified, it can be assumed that a rather similar condition applies to housing, access to public facilities and social services.

The government of Indonesia, in fact, have enacted several regulations regarding disabled people. The Law No 8 of 2016 on Disabled People states that disabled people, among others, has the rights to education, employment, public and social services, as well as to be free from discrimination. This Law has been further elaborated in Government Regulation No 42 of 2020 on Accessibility to Settlements, Public Services, and Protection from Disasters for Disabled People. In public facilities, access for disabled people is ensured to be provided with the enactment of Ministerial Regulation of Public Works and Housing No 14 of 2017 on Accessibility Requirements on Buildings and the newest Government Regulation No 16 of 2021 on Buildings. These two regulations have determined the dimensions and specifications of building elements to be accessible for disabled people, elderly, women, and children.

In the New Urban Agenda, there is commitment to promote safe, inclusive, accessible, green and quality public spaces, and in particular facilitate access for persons with disabilities to public spaces (NUA §36, 37 & 53). In cities, due to a neglect of public space both in quality and quantity, there is a need to revise and expand the ratio of land allocated to public spaces to make them more efficient, prosperous and sustainable. Efforts to provide open space for public use in Indonesia has been set up through spatial management at the city as well as provincial levels. There are also standards applied for public space for neighborhood units.

Since 2011, the green city development program (P2KH) has been initiated. Green city concept, initiated through the Ministry of Public Works and Housing, was a metaphor with the basis on green growth through blue-green infrastructure in order to create a livable city. The main focus of blue-green infrastructure is a balance between the natural environment and water system by using three approaches of nature, community and engineering. It requires synergy among related sectors as well as optimizing utilization of existing infrastructure. By implementing blue-green infrastructure, it creates added value on the aspects of stormwater runoff management, natural landscape design by maximizing greenery, and creation of micro climate and clean air for the regions. In 2016, it was recorded 194.68 billion rupiah budget with a total of 165 municipalities that participated in the program, among others are Batu 10 park in Tanjung Pinang, Pantai Panjang park in Bengkulu, and Fatmawati park in Wonosobo. Further details about Fatmawati Park in Wonosobo is provided in the last part of this report.

[1] Civil Liberty Index influenced by various variables such as freedom of speech or expression, freedom of assembly and freedom of association, freedom of belief, and freedom of discrimination.

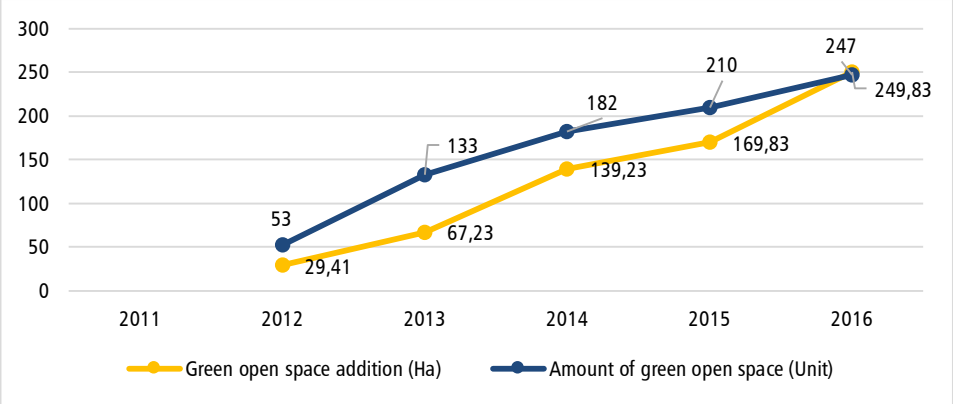


Figure 1. 3 **Development of Green City/** ***Program Pengembangan Kota Hijau*** **(P2HK)**
Source: (Ministry of Public Works and Housing, 2019)

1.1.1.4 Ensure equal access to public spaces including streets, sidewalks, and cycling lanes

Indonesia is committed to promoting safe, inclusive, accessible, green and quality public spaces, including streets, sidewalks and cycling lanes and parks, that are multifunctional areas for social interaction and inclusion, human health and well-being (NUA §37). Indonesia as a result promotes streets designed with side sections to allow for walkability and cycling which contribute to improving health and well-being (NUA §100), and to promoting affordable, accessible and sustainable urban mobility by prioritizing walking and cycling over motorized transportation (NUA §114). Such commitments have been legalized in the regulation and implemented at the sub-national level with several good practices.

Cycling as a choice of transportation during the pandemic has gained audiences, including in Indonesia. A thousand percent increase was recorded in June 2020 in Jakarta (ITDP, 2020), Such an increase was inseparable from the cycling infrastructure developed in the previous years. DKI Jakarta government has initiated a cycling path with a total of 578.8 kilometers for use by 2030. The city of Surabaya, through the Surabaya Transportation Agency, built cycling lanes with a total length of 15,029 meters.

Bandung municipality, for example, within a three years period (2014 - 2017) has built thirty (30) thematic parks and created a program of car-free-day on several street segments on Sundays which allowed people to walk, jog, stroll, and cycle. It eventually morphs into entertainment, exhibitions and informal shopping where the segments are occupied by street vendors. Bandung municipality has also built a bicycle path and engaged in a bike sharing program. Further details about Bandung Bike Sharing (Boseh) Programmes can be found in the last part of this report.

Despite such efforts to increase sidewalks and cycling lanes, statistical data on the proportion of the length of sidewalks and of cycling lanes to the length of road in cities are

mostly unavailable. In DKI Jakarta Province, there is a total of 98.67 km length of cycling lanes which are distinguished into five types. On-road cycling lanes with more than 64 km in total are the most commonly found. Other types of cycling lanes, separate, permanent, and sidewalk lanes, are only found in approximately 10 to 12 km each. Sharing lanes, as the least common type, are found in only 0.28 km. Compared to the total road length in DKI Jakarta, which comprised 6,492 km, proportionally there is only 1.52 % of cycling lanes.

While data on cycling lanes are rather limited, length of sidewalks are quite sufficient. Length of sidewalk only increased by 6,511.79 km within the period 2004-2019 to reach 543,073.65 km. The addition of sidewalk area since 2004 is 123,414.25 km to reach 994,972.33 km in 2019. Compared to road length data and assuming sidewalk length going stagnant, it can be calculated that sidewalks in Indonesia are found merely on 22.73% of its roads. At local level, several data are available: In DKI Jakarta, sidewalks improvement have been increasing from 47.97 kilometers in 2016 to 118 kilometer in 2018, Meanwhile, in Surabaya it was recorded to have 101 km of sidewalks in 2020.

The Indonesian government has also attempted to accommodate the needs of persons with disabilities in public spaces. In order to support equality for everyone, there are several policies that regulate universal design and have been implemented in several facilities that are friendly to persons with disabilities. The facilities have not been evenly distributed in cities across Indonesia. Some examples are: the S portal facility made of stainless steel for wheelchair users, guiding block as a guide for the blind, the availability of ramps on the People's Crossing Bridge (JPO) and the Pelican Crossing Facility that facilitates the mobility of wheelchair users in DKI Jakarta. In addition, priority waiting seats are also available at every station and airports, there are priority seats and space for wheelchair users in public transportation such as electric train (KRL) and Transjakarta buses.

Figure 1. 4 Child-friendly Integrated Public Space Clilitan, Jakarta

Source: Ministry of Public Works and Housing (2019)

In addition, to create child-friendly spaces, the Government provides public green open space and city parks accompanied by educational facilities for children. Currently, DKI Jakarta has more than 290 public spaces in the form of parks with the concept of RPTRA (Child-friendly Integrated Public Space) equipped with various interesting playground, CCTV surveillance, open multipurpose halls, sports fields, toilets public and toilets for persons with disabilities, interaction parks, amphitheaters and composting or waste sorting facilities.

1.1.2 Access to adequate housing

1.1.2.1 Ensure access to adequate and affordable housing

The New Urban Agenda's vision is guided by the principle of "Leave no one behind" by ending poverty by providing access (among other things) to adequate and affordable housing (NUA §14). Housing should not take a huge portion of total household income. In many countries, housing and transportation costs are the biggest expenditure items, hence they deserve monitoring. The bigger the share of the housing and transportation expenditures, the less money is left for other household needs.

Data on average monthly expenditure per capita by group of goods (in rupiah) in Indonesia, 2013-2019 shows an increase in expenditure per capita every year. In 2019, the expenditure reached the highest point, reaching IDR1.388.212 per capita. Meanwhile, the average annual per capita income in 2019 was IDR59.1 million and decreased to IDRIDR 56,9 million in 2020. Based on these figures, it can be calculated that the proportion of monthly expenditure in 2019 was 28.18%.

The average monthly expenditure per capita for non-food items in Indonesia has a higher percentage than expenditure for food items. The percentage of average expenditure per capita for non-food reached 54.74%, leaving expenditure on food behind which reached 45.26%. Looking at the monthly expenditure per capita for non-food commodity percentage in 2019, it can be seen that the largest expenditure is on housing, fuel, lighting and water commodities which takes 50.3% from non-food commodity groups and 26% from overall expenditure. In other words, the spending on housing commodities places the highest expenditure rank compared to other commodities overall.

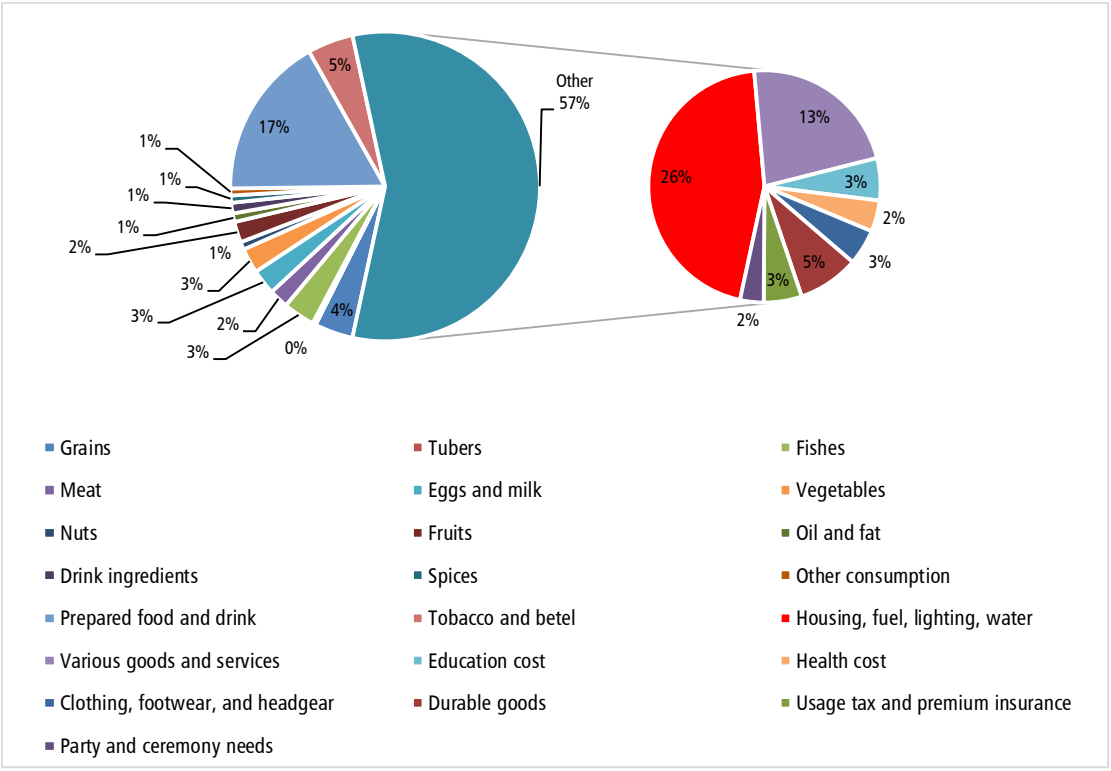


Figure 1. 5 Percentage of Monthly Expenditure Average by Group of Goods in Indonesia (Year 2019)

Source: Statistics Indonesia, Susenas 2020

Ownership housing

Affordable and adequate housing is defined as housing that meets the criteria of building safety, minimum floor area and health for the residents, and is affordable for all income levels (GOI Law no. 1 / 2011 on Housing and Settlement Area). Government programs for affordable housing are targeted mostly at low-income households – those with limited purchasing power to fulfil their housing needs and require government assistance. The Ministry of Public Works and Housing is responsible to determine the income level of low-income households that are eligible for government subsidy. The latest Ministry of Public works and Housing Regulation no. 242 /2020 sets the maximum income level at Rp 8 million, interest rate of 5%, maximum subsidy 5% and max tenor 20 years. The housing price ceiling is set for landed houses (building area 21-36 sqm, land area 60 - 200 sqm) based on region and apartment units (floor area 21 – 36 sqm) based on construction costs per province.

As part of the One Million Houses Program launched by President Joko Widodo in April 2015, the liquidity facility for housing finance (FLPP) is aimed to increase affordability. The FLPP funds are blended with capital market funds, to lower interest rates up till 5% from the current market rate of 12%. Since it was first launched in 2010, the program KPR FLPP (FLPP mortgage program) has supported more than 764.000 households with liquidity funds totalling IDR55.6 trilliun (currency 1 USD = IDR14.500). The FLPP home mortgage is offered by 42 participating banks and the houses are supplied by private developers and Perum Perumnas (the National Housing Development Corporation) in 34 provinces of Indonesia.

Since 2018, the Center for Housing Financing Fund Management (PPDPP) has improved their services in delivering FLPP with digital products that are easily accessed by stakeholders. Starting with SiReng (2018), Registration System for Developers (supply), followed by SiKasep (2019), Information System on Subsidized Mortgage (demand) and SiPetruk (2021), a monitoring application to assure housing construction quality. These digital applications have made it easier for households to choose a house and buy their first home, especially during the covid19 pandemic. Further details on the digital system will be explained in Part 2.

Rental housing

Most local governments of metropolitan and large cities have built rental apartment units, referred to as *rusunawa* as an affordable option to low-income people who are temporary working in the city. The construction of low-cost houses carried out by the Ministry of Public Works and Housing in 2020 consists of 787 flats.

The achievement of the One Million Houses Program is divided into the construction of 772,324 houses for low-income units and 192,893 houses for other income groups. Low-cost houses are accessible to low income people with several categories: single person with 6 million IDR income per month; couple with 8 million IDR income per month; and 1.5 –2 million higher income for Papua and West Papua residents.

The Ministry of Public Works and Housing has also implemented Self-built Housing Stimulant Funding or *Bantuan Stimulan Perumahan Swadaya* (BSPS) program. During the period of 2015 to 2019, the funding has been used to upgrade a total of 700.641 houses and build 35.215 new houses. The upgraded houses are mostly located in Papua and followed in Java while the newly-built houses are mostly in Java.

Figure 1. 6 Flats built by Ministry of Public Works and Housing for government officials in Maluku (left) and Pasar Jumat, DKI Jakarta (right)

Source: (Ministry of Public Works and Housing, 2020)

The construction of houses for low income was also carried out by other Ministries / Institutions which has reached 51,136 units which divides into Regional Government (33,925 units), developer (388,639 units), Corporate Social Responsibility (CSR) (3,681 units) and community 4,960 units. Meanwhile, for the non-low income groups 178,885 units were built and the community was 14,038 units. MoSA, for example, contributed through the Social Rehabilitation of Inhabitable Houses (RS-Rutilahu) program. Intended to improve the quality of housing for the poor through repair/rehabilitation of inhabitable housing conditions, with priority on roofs, floors, walls and toilet facilities, RS-Rutilahu requires it to be constructed by a group consisting of a minimum 5 (five) and maximum 15 (fifteen) households. The amount of RS-Rutilahu social assistance is IDR15,000,000 per house.

1.1.2.2 Provide access to sustainable housing finance options

There are many reasons to monitor mortgage debt. Most households cannot afford to pay for a house or flat without getting a mortgage loan. Hence, the availability of mortgage loans is key to increasing homeownership. Increasing homeownership is one of the major ways to achieve adequate housing for all, one of the key commitments in the New Urban Agenda (NUA §31). Houses and apartments are also a major asset for households. The more mortgage loans are available, the more households become homeowners. There are also macroeconomic reasons for monitoring mortgage debt, it is important that policies are in place to ensure that borrowers purchase properties that they can afford. It is important to monitor mortgage debt. The financial crisis in 2008/2009 began in the housing sector.

There are efforts to ensure access to sustainable housing finance options. Currently, all housing finance programs involve government funding. As government resources are limited, subsidies for housing finance are not sustainable. In 2005, the government established PT Sarana Multigriya Finance (SMF), an independent company to support decent and affordable housing by developing a secondary mortgage market, increasing the availability of long-term funding for housing and to enable affordable home ownership. SMF has played a major role in reducing the government portion of FLPP, so that the available funding can finance more home ownership.

In 2016, the Law on Housing Savings Fund was launched. The Saving Funds are intended to shift government funding to independent and more sustainable funding. The funds are collected periodically from employers and employees based on a certain percentage and managed under a special account by the Housing Savings Board. The funds can be used to purchase or repair their first home and returned to participants at the termination of their contract term. During the first stage, all government/civil servants are participants of the housing savings program. In the next stages, hopefully all workers will

participate in the housing savings program. The program prioritizes low-income employees with salary under IDR8 million (following the regulation from the MPWH).

The Housing Savings Law states that the Housing Savings can use external funds such as FLPP. The Government Regulation on Housing Savings further states that the FLPP funds are to be transferred to the Housing Savings Board as government investment. The FLPP home mortgage will still continue under the Housing Savings Board with some adjustments.

In 2020, the Indonesian Government has budgeted investment for housing financing assistance through Housing Financing Liquidity Facility (FLPP) amounting to 102.500 housing units with an allocation of FLPP funds of IDR 11 trillion. As of December 31, 2020, the realization of FLPP funds was IDR 11.23 trillion for 109,253 housing units. This realization figure includes the distribution of *KPR Sejahtera* which comes from the bailout of 14,580 units of executing banks with a value of Rp1.46 trillion. The total accumulated distribution of FLPP funds from 2010 to December 2020 was 764,855 units with a FLPP value of IDR55.60 trillion. Majority proportion of beneficiaries is informal workers (57%) and 43% formal.

1.1.2.3 Establish security of tenure

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

A new policy on e-land certificates during COVID-19 pandemic is launched. The purpose is to register legal ownership of land throughout Indonesia, including to facilitate public access to apply for land certificates, and to reduce deficiencies and legal uncertainty in the land sector. This is to reduce illegal land transaction practices that often occur because of boundary disputes. The introduction of the e-certificate is also to accelerate digital transformation of land cadastre. MoAASP introduced other electronic/digital services, including mortgage service (ROYA), information on certificates of land value zone and certificate checking. With the existence of a digital service system, it is useful to reduce queues at the land office during pandemic.

Increasing efforts to secure tenure rights in Indonesia have been made at different types of land that affect various social groups and gender affiliation. There is an increasing trend of women property owners in comparison to men. Between 2015 to 2020, property ownership has only changed a little. It is from about 82% of men and 84% of women in 2015-2016 to approximately 79% of men and 81% of women in 2019-2020. In 2020, the proportion of women's property owners is 82.14% while men's is 79.71%.

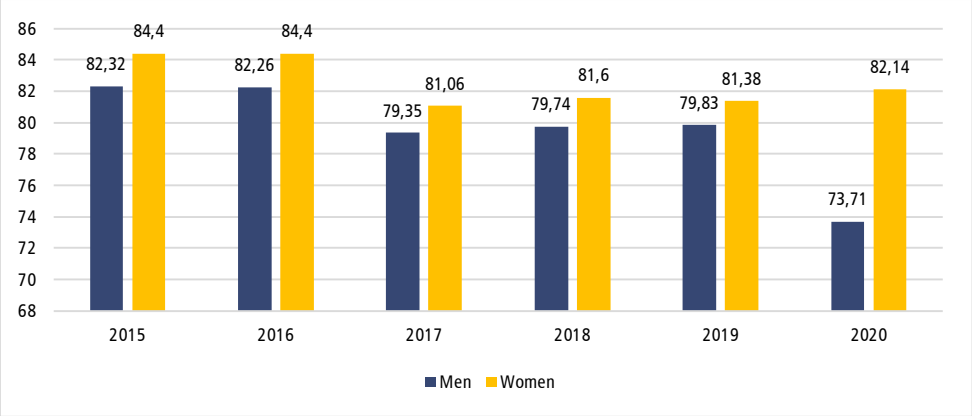


Figure 1. 7 Proportion of Households to Owned Houses Based on Gender 2015-2020
Source: (National Development Planning Agency/Bappenas, 2021)

By area of residence, it is worth noticing that the proportion of secure tenure rights of land, with legally recognized documentation, and who perceive their rights to land as secure in 2015 to 2020 in urban areas had less proportion of property ownership than in rural areas. There was a significant difference between the proportion of property ownership in urban (approximately average on 72%) than in rural (approximately average on 90%). Both house ownership in urban and rural areas decreased in 2017 and tend to grow a little from 2018 to 2020.

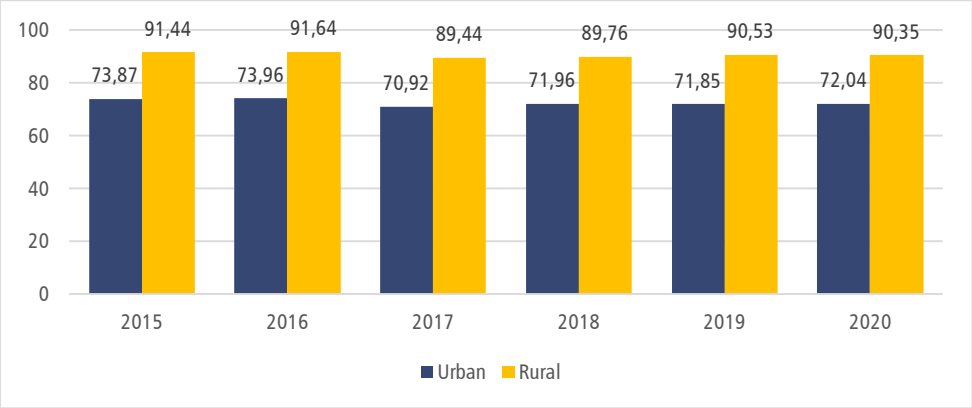


Figure 1. 8 Proportion of Household Owning Their Residences (Based On Area)
Source: (National Development Planning Agency/Bappenas, 2021)

Indonesia supports incremental housing, self-build schemes, and upgrading slums and informal settlements (NUA §107). Indonesia also agreed to promote planned urban extensions and infill, whilst focusing on renewal, regeneration and retrofitting of urban areas, including the upgrading of slums and informal settlements, and avoiding spatial and socioeconomic segregation and gentrification, (NUA §97).

1.1.2.4 Establish slum upgrading programmes

Indonesia is committed to promoting national, subnational and local housing policies that support the incremental realization of the right to adequate housing for all as an element of the right to an adequate standard of living including construction of dwellings (NUA §31). Reaching the commitments of the New Urban Agenda requires substantial improvement is the living standards of slum dwellers. Future increase in urban population will require housing. In addition, the population that is currently living in slums will also

require their housing to be either upgraded or be moved to new adequate housing. Hence, it is very important to monitor the level of investment in residential buildings.

There is only one data required for this sub-category: Total investment in housing (in both formal and informal sectors in the urban area), as a percentage of gross domestic product. Such data is currently available from the real estate sector. Statistics Indonesia recorded that while the manufacturing industry sector has contributed the biggest portion of GDP within year 2016-2019, real estate sector has been at the lowest four with an increasing contribution up to approximately 300,000 billion rupiah. Such contribution is less than one tenth of the manufacturing industry sector.

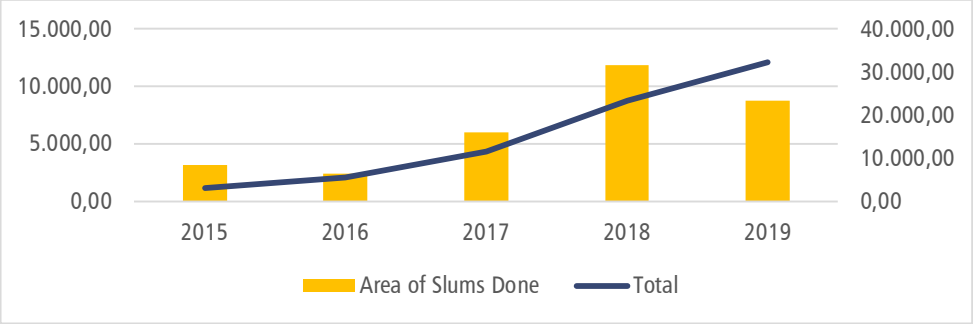


Figure 1. 9 Slum Upgrading Output 2015-2019

Source: Ministry of Public Works and Housing of the Republic of Indonesia, 2020

Data on total investment in housing for the informal sector can be indicated from budget for the Settlement Infrastructure Program taken by the Ministry of Public Works and Housing, which was IDR23,36 billion in 2019. Meanwhile, the requested data on the proportion of cities with slum upgrading programmes can be correlated with the amount of slum upgrading locations and areas. In 2019, the Ministry of Public Works and Housing had the following targets: 1,043 locations with 8,724.61 hectares of heavy slum; 1,754 locations with 14,135.89 hectares of moderate slum; 1,902 locations with 12,154.81 hectares of light slum; and 2,356 locations with 9,292.83 hectares of undefined slum.

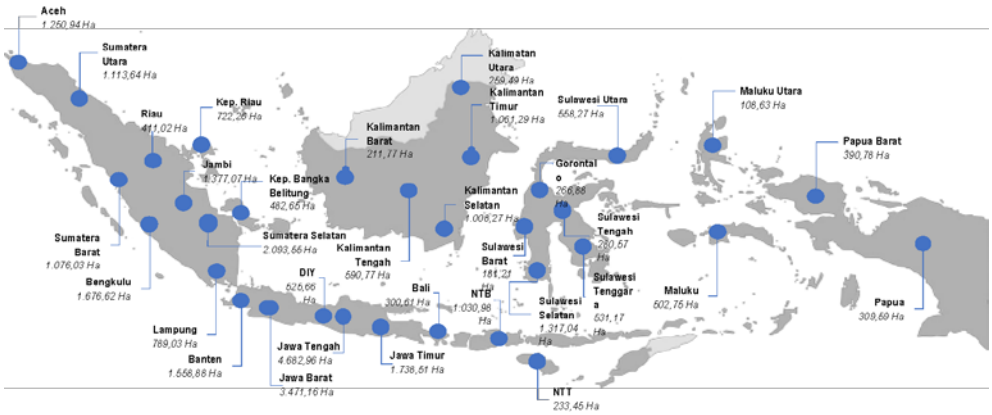


Figure 1. 10 Distribution of Slum Upgrading 2015-2019

Source: Ministry of Public Works and Housing of the Republic of Indonesia 2020

The Indonesian government continues to strive to implement poverty alleviation programs by reducing the number of slums as the root of problems in urban areas. In the context of handling slum areas, the government implements the City Without Slums Program (*Kotaku*) which was created to support the 100-0-100 movement, to provide 100% access to safe drinking water, reduce the slum areas to 0%, and 100% access to sanitation.

Kotaku is aimed at synergizing between community-based infrastructure development and encouraging the role of local governments. Kotaku has helped improve 38,431 hectares of urban areas by 2019. The fulfillment of access to basic utilities is expected to encourage city residents to increase their productivity and live a more decent life (Ministry of Public Works and Housing, 2017). At the end of 2019, the achievement in slum settlement management in Indonesia was 32,222 Ha. This achievement leaves a gap of 6,209 ha.

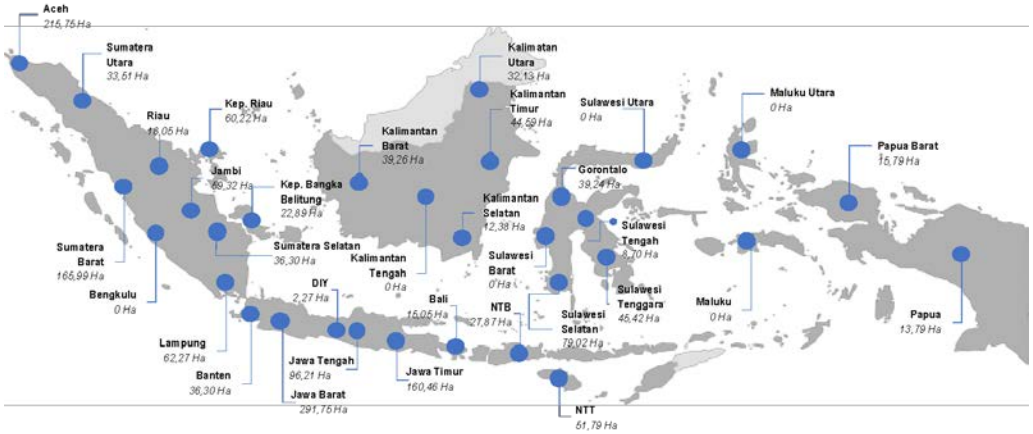


Figure 1. 11 Distribution of Slum Upgrading in Indonesia 2020
Source: Ministry of Public Works and Housing of the Republic of Indonesia 2021

From 2020 to 2024, the concept of slum upgrading has been implemented more comprehensively by handling slum settlement based on needs, having a quick impact, providing social and economic value, and changing the face of the area through the application of rejuvenation and resettlement patterns. As one of the more comprehensive steps in handling slum settlements, an integrated slum management was initiated through the Special Allocation Fund (DAK) program for the Integration of Housing and Settlements, Drinking Water, and Sanitation which was implemented in 11 districts/cities. Actions offered in the DAK integration program are slum areas rejuvenation and resettlement. In 2020, the Integration DAK was still in the planning phase. In 2020, the achievement of the slum upgrading is 1,686.31 ha spread across various regencies and cities in Indonesia. One of the good examples of slum upgrading programmes could be seen in Jangkok River, Mataram City.

1.1.2.5 Integrate housing into urban development plans

Indonesia committed to increasing the availability of different safe housing options affordable and accessible to households at different income levels, as well as integrating marginalized communities and homeless persons to prevent segregation. Indonesia also resolved to improve the living conditions of homeless people, facilitate their full participation in society and eliminate homelessness (NUA §33). All urban residents need adequate and affordable housing for them to enjoy a good standard of living and have economic security. The indicator will determine if governments are spending enough and being effective with spending on housing. However, affordable housing may not be available in the private real estate market. Hence, governments may need to invest in residential housing for low-income residents or implement policies that encourage household access to mortgages.

In Indonesia, there are several ways to implement the urban development plans into regulations, namely Medion-Term Regional Development Plan and Spatial Plans. Medium-Term Regional Development Plan in which hereinafter is to be referred as the

Regional RPJM, is the regional development plan document for a period of five (5) years, which is the specification of the vision, mission and program of the regional head guided by the Long-Term Regional Development (Regional RPJP) and by taking into account the Long-Term National Development Plan (National RPJP). Meanwhile, Spatial Plan, known as RTRW is a regulation that focuses more on spatial aspects, such as spatial structure plan, spatial pattern plan and land use control directions. Currently, there are 53 cities and regions that have Regional RPJM and up until 2015, there are 25 out of 34 provinces; 329 out 399 Regionals; and 84 out of 93 cities that have Regional RTRW that regulate either the province, regionals or city development.

West Sumatra is one of the good examples in terms of integrating housing into urban development plans. In the basis of Regional Regulation of West Sumatra Province No. 13 Year 2012 concerning Regional Spatial Plan (2012-2032), West Sumatra is implementing the housing aspect into Housing and Human Settlement Development (RP3KP) and brought it into the realm of regulation until it's legalized as Regional Regulation (Perda) No. 7 of 2016 concerning RP3KP West Sumatra Province 2016-2035. RP3KP of West Sumatra Province is prepared as the West Sumatra Province's Parent Development of Housing and Settlements Long Term Plan, as the basis and direction in housing program planning. The initiation of the preparation of the RP3KP began in 2015 as a follow-up to institutional strengthening activities in the housing sector and Settlement by the Directorate of Housing Planning.

At the national level, urban development is included in the Medium-Term National Development Plan or known as National RPJM as well as National Spatial Plan (National RTRW). In this basis, there are several programmes that's being implemented in order to improve the quality of life for the people of Indonesia, most importantly in the housing aspect. In 2019, Ministry of Public Works and Housing budget comprised IDR 485.43 billion (0.3%) for housing funding development program, and IDR8.464,1 billion (6.8%) for housing development program. From such a budget, 48,8 thousand of apartment units, 119,6 thousand of commercial houses, 29.3 thousand of special and self-built houses have been built in addition to 236 thousands of house improvements.

The form of housing subsidies from the Ministry of Public Works and Public Housing are grants and financing facilities. The Ministry provides housing subsidies in financing facilities, through the Housing Financing Liquidity Facility (FLPP), Down Payment Subsidy (SBUM), Subsidized Mortgages (KPR), Housing Micro Financing Program (PSMP), Low Income Public Housing Development, Savings-Based Housing Financing Assistance (BP2BT), People's Housing Savings (TAPERA). One of the efforts made by the Ministry of Public Works and Public Housing is to target 222,876 housing finance assistance units for the 2021 Fiscal Year with a total budget allocation of IDR 21.63 trillion.

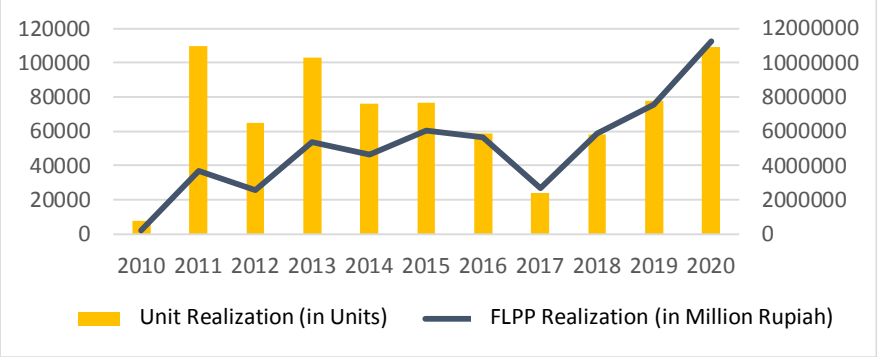


Figure 1. 12 FLPP and Unit Finance Realization

Source: (Ministry of Public Works and Housing of the Republic of Indonesia, 2020)

On the scale of national government in total, percentage of government budget dedicated to housing and public infrastructure is shown on Figure 1.23 (National Government Expenditure Budget data by purpose (billion rupiah) for 2013–2015). The National Government expenditure budget spent for housing and public facilities in 2015 was IDR20.466 billion (1.42 billion USD), 2014 was IDR31.487 billion (2.18 billion USD), and 2013 was IDR30.722 billion (2.13 billion USD). The amount of expenditure budget spent for housing and public facilities decreasing from 2013 to 2015. The National Government expenditure budget in 2013-2015 spent the most of the budget on public services reaching 64% annually. Meanwhile, the smallest expenditure budget was spent for the tourism and culture sector (<1%).

1.1.3 Access to Basic Services

1.1.3.1 Access to safe drinking water, sanitation and solid waste disposal

The aim is to determine the portion of the population with “sustainable access” to “safe drinking water, basic sanitation”. The indicator also addresses dimensions accessibility, availability and quality. it is important to ensure universal and equitable access to safe and affordable drinking water for all (NUA §119). The indicator takes into account safe management of fecal waste and discharge of untreated wastewater. Hand washing is an important factor in reducing the spread of diseases. In the New Urban Agenda, Indonesia committed to strengthening the sustainable management of resources, including land, water (oceans, seas and freshwater), environmentally sound management and minimization of all waste.

For this sub-category, data on proportion of population using safely managed drinking water services, proportion of population using safely managed sanitation services, and proportion of municipal solid waste collected and managed in controlled facilities out of total Municipal Solid Waste generated by cities are replaced with proxy indicators available in Indonesia.

For drinking water, the proportion of population using drinking water services managed safely is being used. Based on the 2019 SDGs achievement report, the data of 6.1.1, namely the percentage of households with access to adequate drinking water sources, is relatively high nationally. The percentage in 2015 had reached 84.95 percent and consistently continued to increase until in 2019 - it reached 89.27 percent. The source of unsafe drinking water is most affected by unprotected wells, which reached 4.69 percent. On the other hand, it is also important to note that the source of drinking water used mainly by households is refilled water, which is considered as unsustainable drinking water sources.

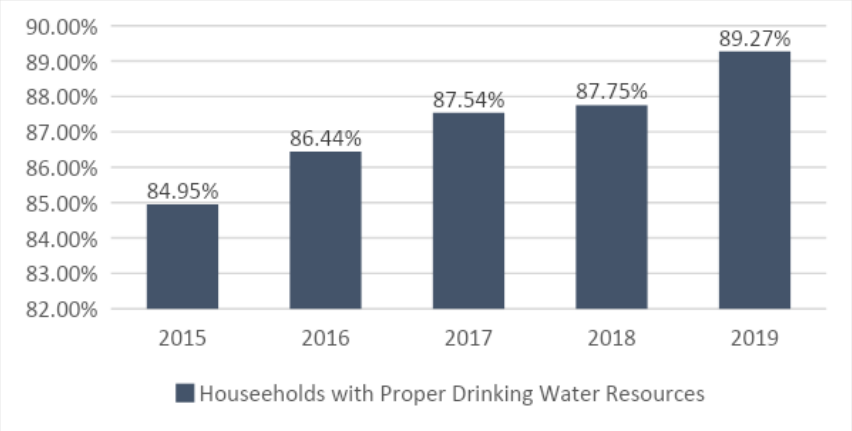


Figure 1. 15 Households with Proper Drinking Water sources 2015-2019
Source: (National Development Planning Agency/Bappenas, 2019)

For sanitation, the percentage of households with access to proper sanitation (including safe sanitation) consistently increases every year. For example, in 2019, 77.44 percent of households had access to proper sanitation, increasing 9.49 percent from 2015.

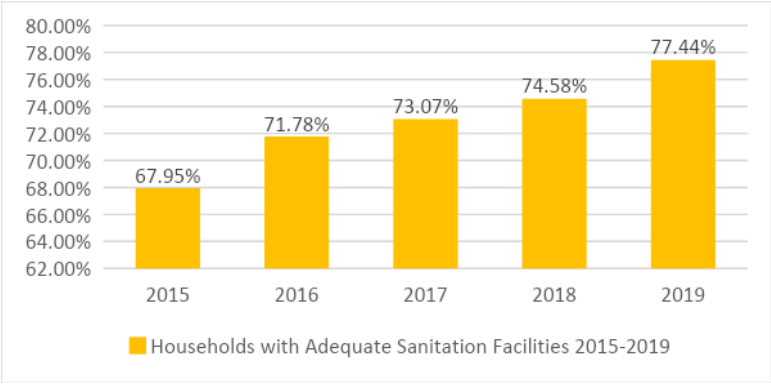


Figure 1. 16 Households with Adequate Sanitation Facilities 2015-2019
Source: (National Development Planning Agency/Bappenas, 2019)

The following is data on the Percentage of Households by Province and Defecation Facilities, 2000-2016 (Statistics Indonesia, 2016). Based on the graph, it can be seen that the percentage of households using their defecation facilities has increased from 2000 (55.34%) to 2016 (75.93%). Meanwhile, the use of shared defecation facilities (10.25%), public toilets (2.74%), and communal toilets (0.24%) still existed until 2016. The percentage of households with toilet facilities has decreased from 2007 (22.85%) to 2016 (10.84%).

The success rate for handling national waste has only reached 67.4 percent and has not yet reached the specified target of 80%. In addition to waste handling data, urban household access to waste management services has only reached 59.08 percent handling and 1.55% reduction (Susenas MKP 2016, processed by National Development Planning Agency/Bappenas). Bogor City implemented the regulation to restrict people from using plastic bags in order to reduce the solid waste disposal, further details will be explained in the last part of this report.

On the habit of public health, the average national population who has the proper hand washing habit is 46.49% (Statistics Indonesia, 2019). Proportion of the population. Having Handwashing Facilities with Soap and Water tends to fluctuate from 2017-2019. For example, in 2017, the proportion of the national population with handwashing facilities with

soap and water was 68.16%. This figure increased in 2018 to 78.87%, then decreased in 2019 to 76.07%.

1.1.3.2 Access to safe and efficient public transport system

Indonesia committed to promoting access for all to safe, affordable, accessible and sustainable urban mobility by integrating transport and mobility plans into overall urban and territorial plans and encouraging a wide range of transport and mobility options by supporting a significant increase in accessible, safe, efficient, affordable and sustainable infrastructure for public transport, and providing better and coordinated transport and land-use planning (NUA §114).

Based on Data surveyed by Statistics Indonesia in 2014 on the Environmental Caring Behavior, people mostly walk or use motorbikes. A total of 48.14% of people do not use a vehicle to work and 44.99% do not use a vehicle to go to school. A total of 44.18% of people use motorbikes to go to school, and 37.02% to work. The rest use public transportation, bicycles, cars, trains, and rickshaws to work and go to school. It goes to show that while half of the households walk and another half are still depending on their motorcycle, public vehicles are yet to be relied on.

In 2019 the achievement for the indicator 11.2.1 Urban Public Transport Market Share (%) (as a proxy indicator for the percentage of users of public transportation modes in urban areas) in 2019 has reached the target of 32% (National Development Planning Agency/Bappenas, 2019). One of the government's efforts to improve accessibility for citizens is to provide several mass transportations such as BRT (Bus Rapid Transit), LRT (Light Rail Transit) and MRT (Mass Rapid Transit) in several cities in Indonesia. The development of mass transportation, whether based on roads, rails or rivers, is a development priority that increasingly implemented by many large cities. Six metropolitan cities in Indonesia, such as Jakarta, Surabaya, Bandung, Medan, Semarang and Makassar, have started to develop road and rail-based mass transportation, which is primarily aimed to increase the use of public transportation in metropolitan cities in Indonesia, which is still very low, which is around approximately 5-25%. One of good examples In implementing mass transportation is Suroboyo bus in Surabaya city, more detailed information about Suroboyo bus will be explained in the last part of this report.

The direction of transportation development for cities in Indonesia is currently moving towards mass transportation, especially in the form of Bus Rapid Transit (BRT). Until 2017, there were 14 cities in Indonesia that had Bus Rapid Transit T systems. However, the level of community satisfaction with this transit system is still low. The existing system is not integrated yet and cannot be relied on by the community. To support the development of mass transportation, cities began to clean up and implement urban pedestrianization programs. Pedestrianization is part of the process of forming a pedestrian city that will support the development of mass transportation. (BPIW, 2019)

Table 1. 1 Bus-Based Transportation in Indonesia

Bus Rapid Transit	City	Amount of Service Corridors
Transjakarta	Jakarta	15
Transpakuan	Bogor	3
Batik Solo Trans	Surakarta	8
Trans Semarang	Semarang	4
Trans Jogja	Yogyakarta	17
Trans Metro Bandung	Bandung	1
Trans Musi	Palembang	8
Trans Padang	Padang	6
Trans Mamminasata	Makassar	11
Trans Bandar Lampung	Bandar Lampung	7
Trans Sarbagita	Denpasar	4

Bus Rapid Transit	City	Amount of Service Corridors
Trans Mebidang	Medan	2
Suroboyo Bus	Surabaya	14
Trans Metro	Pekanbaru	2
Trans Batam	Batam	8
Trans Kawanua	Manado	1
Trans Hulotalangi	Gorontalo	1
Trans Ambon	Ambon	3
Trans Tangerang	Tangerang	3

Source: (Ministry of Public Works and Housing of the Republic of Indonesia, 2017)

The pedestrianization program is one of the efforts implemented by cities to support the development of mass transportation. Cities in Indonesia that are already developing mass and pedestrian transportation include Jakarta, Bogor, Surakarta, Semarang, Yogyakarta, Bandung, Palembang, Padang, Makassar, Bandar Lampung, Denpasar, Medan, Surabaya, Pekanbaru, Batam, Manado, Gorontalo, Ambon and Tangerang. With a pedestrianization urban program, the city is working to strengthen its citizens by encouraging the use; provide a conducive environment for them to walk. The pedestrian design was also made by considering the needs of all levels of society, including people with disabilities. Citizens have enthusiasm and support the pedestrianization program. It can be seen from the Pedestrian Coalition formation. (BPIW, 2019)

1.1.3.3 Access to modern renewable energy

Indonesia committed to ensuring universal access to affordable, reliable and modern energy services by promoting energy efficiency, sustainable renewable energy; as well as supporting subnational and local efforts to utilize renewable energy in public buildings and advancing its use in residential buildings by mandating installation in building codes (NUA §121). Renewable energy technologies represent a major element for tackling the critical global problem of climate change. Importantly, this indicator focuses on the amount of renewable energy actually consumed. By focusing on consumption by the end user, it avoids the distortions caused by the fact that conventional energy sources are subject to significant energy losses along the production chain.

Energy use in Indonesia is still dominated by fossil fuels, like petroleum and coal, while the use of renewable energy is still very low 2.56 percent, whereas this renewable energy is driven to maintain environmental sustainability. Indonesia's total primary energy production (coal, gas, petroleum, and renewable energy or *Energi Baru Terbarukan (EBT)* in 2015 was 2,848,025 thousand BOE where 1,887,366 SBM had been exported abroad.

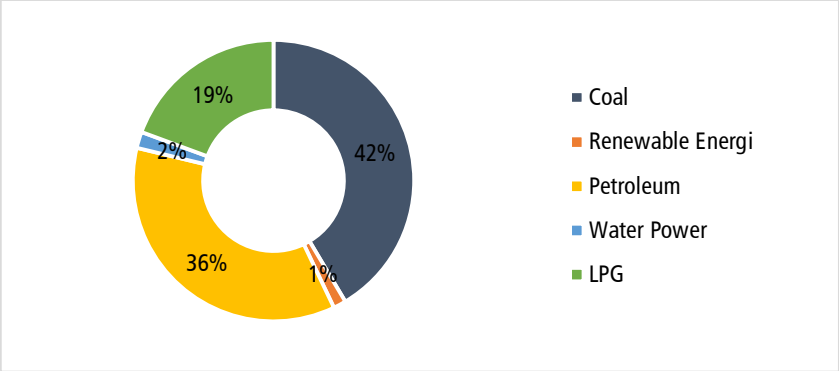


Figure 1. 13 National Energy Consumption by Type

Source: (Ministry of Public Works and Housing of the Republic of Indonesia, 2017)

There are various challenges in the implementation of renewable energy such as the lack of national commitment, the need for substantial investment funds are still needed, the high price of EBT technology, widespread social issues related to community resistance. The Indonesian government began to move to the use of environmentally friendly energy, one of them is with wind power, micro-hydro. Sidrap is the largest wind power plant or Pembangkit Listrik Tenaga Bayu (PLTB) in Indonesia that will generate 70 megawatts (MW) power with 30 windmills (State of Indonesian Cities, 2017).

The use of renewable energy continues to increase in Indonesia. Until 2019, renewable energy share in the total final energy consumption has only reached 9.15 percent. This achievement is still far from the target set in the 2015-2019 NMDP. However, the Indonesian government pledged to reduce greenhouse gas emissions by 26% by the year 2020. Therefore, Indonesia has embarked on a mixed energy use policy with at least 23% coming from new and renewable energy by 2025. Malang Regency in East Java utilizing methane gas resulted from waste residue in the landfill (TPA), while Cilacap and Tuban reducing the pile of waste in the landfill with processing the waste into Refuse Derived Fuel (RDF) foral. Further details about Waste to Energy illustrative action will be explain in the last part of this report.

To reach the 2025 goal, the use of renewable energy as fuel is being increasingly encouraged by increasing the mandatory biodiesel blending to B-30. The government also continues to encourage the construction of power plants by prioritizing the use of local energy resources.

1.1.3.4 Access to Information Communication Technology (ICT)

By adopting the New Urban Agenda, Indonesia commit to promoting equitable and affordable access as well as promoting appropriate measures in cities and human settlements that facilitate access to public information and communication (including information and communications technologies) and to encouraging urban-rural interactions and connectivity by strengthening sustainable transport and mobility, and technology and communications networks and infrastructure, based on planning instruments of the integrated urban and territorial approach (NUA §34, 36 and 50). The Internet has become a major way for accessing information, especially in regard to science, technology and innovations.

the following data is internet users in Indonesia (Figure 1.31). Based on APJII data, the internet users in Indonesia have reached 73.7%. For Indonesia, the use of the internet is not new, although the use has begun to increase in the last decade. Starting with very few users in the 1990s, based on the World Bank's World Development Indicators (WDI), today, about half of the population is internet users. Additionally, based on Internet World Stats (2020), internet users in Indonesia have increased from previously 88.1 million in 2014 to become 171,26 million in 2020. In 2018, 106 million of social media accounts came from Indonesia.

On the demand side, as welfare lifts up, internet use also increases as well. The statistics indicate that customers served by the broadband almost doubled in five years since 2016. Five years ago, it was only 7.84% of the total population, while in 2020 it reached 14.3%. On the supply side, this is not separated from the massive development of internet infrastructure over the country, even until sub-district level. In 2019, there were only 35.75% sub-districts served by fiber optic networks, while a year later it jumped to 57.58%.

Spatial digital divide is much more obvious to see. More than half of internet users are in Java, the main island with the most densely populated area; while the rest is unevenly distributed among the five groups of islands. Users in Sumatera take the second rank, while Maluku and Papua islands in the eastern part of the country take the smallest one.

Indonesia is listed as the 4th country in the world with the largest population of internet users (Internet World Statistics, 2020). This is supported by the number of districts/cities covered by national fiber optic. Up to 2018, 499 out of 514 districts/cities have been covered with 3G networks, and 492 of them have been connected with 4G networks. In 2019, it was targeted that all districts and cities will be connected to broadband backbone network jointly developed by telecommunication operators and cooperation between the Government and Business Entity through the Palapa Ring project to overcome the digital divide.

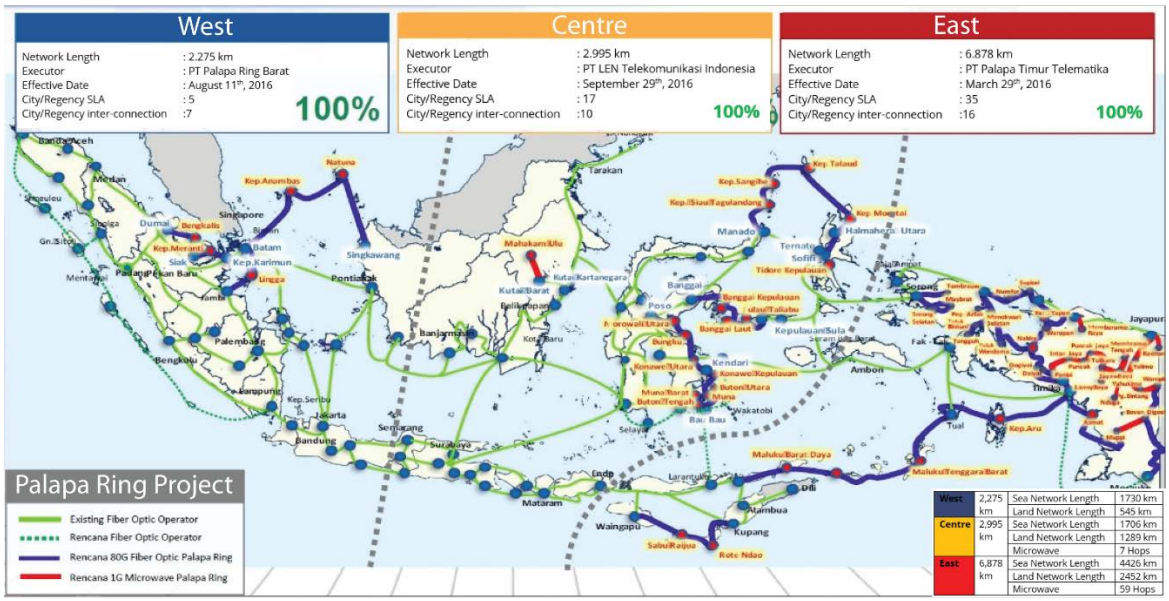


Figure 1. 14 Fiber Optic Network, Palapa Ring Project
Source: https://www.baktikominfo.id/

Figure 1.18 shows that the percentage of the national fiber optic backbone network that connects district/city capitals has reached 100% (National Development Planning Agency/Bappenas, 2019). The penetration rate of fixed broadband access in urban and rural areas still reaches 10.30% of households in urban areas from the target set at 71% of households in urban areas. The proportion of the population served by mobile broadband has reached the target with an achievement of 120.53% in 2018.

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

Indonesia committed to increasing economic productivity by providing the labour force with access to income-earning opportunities, knowledge, skills and educational facilities that contribute to an innovative and competitive urban economy (NUA §56). The share of youth not in employment, education or training (youth NEET rate) provides a

measure of youth who are outside the educational system, not in training and not in employment.

During 2010-2020, the proportion of youth not in Educational, Employment or Training (NETT) in Indonesia did not change significantly. In 2010, the percentage of NEETs was 25.6% and fell to 21.77% in 2019. Despite relatively lower, the percentage of NEETs more than double when compared to national unemployment rate (5.23%), indicating that the participation of youth population in the economic activities has not been optimum and exacerbated by the impact of the pandemic which caused NEET to increase to 24.28%.

Indonesia highlighted the need to take advantage of the opportunities presented by urbanization as an engine of sustained and inclusive economic growth, social and cultural development, and environmental protection, and of its potential contributions to the achievement of transformative and sustainable development (NUA §4). The New Urban Agenda redresses the way cities and human settlements are planned, designed, financed, developed, governed and managed which contribute to end poverty and hunger in all its forms and dimensions; reduce inequalities; promote sustained, inclusive and sustainable economic growth (NUA §5). The real GDP per employed person being a measure of labor productivity, this indicator represents a measure of labor productivity growth, thus providing information on the evolution, efficiency and quality of human capital in the production process.

Data on GDP growth rate per worker/ Real GDP growth rate per employed person shows 2.94% in 2019. This number of achievements is still far from the SDG target of that year which was set at 4-5%. It seems much more effort needs to be done to diversify, improve and bring innovative technology, including through sectors that provide high added value and are labor intensive.

Based on the data on the GDP Growth Rate Per Worker/Real GDP Growth Rate Per Worked Person Per Year 2018-2020 (Figure 1.28), it can be seen that the GDP Growth Rate Per Labor by province tends to fluctuate, decreasing and increasing from year to year. The province with the highest growth rate in 2020 is Papua, which is 8.39%. The province with the highest labor GDP growth rate during the 2018-2020 period was Central Sulawesi in 2018, which was 9.86%. Meanwhile, the province with the lowest GDP growth rate in 2020 is Bali, which is -7.60%. The province with the lowest labor GDP growth rate in the 2018-2020 period was Papua in 2019 which was -15.34%.

1.2.1.2 Support the informal economy

One of the commitments in the New Urban Agenda was to recognize the contribution of the working poor in the informal economy, particularly women, as well as gradually transition workers and economic units from the informal to the formal economy by combining incentives and compliance measures, while ensuring preservation and improvement 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 livelihood. In these situations, indicators such as the unemployment rate would provide a very incomplete picture of the labor market situation, overlooking major deficits in the quality of employment. Statistics on informality are key to assessing the quality of employment in an economy.

Based on VNR 2021, the proportion of informal employment in non- agriculture (service and manufacturing sectors) has increased: the service sector increased from 46.16% to 50.46%; the informal manufacturing sector increased from 38.97% to 44.31% in 2020. For manufacturing, the number of informal workers is around 44.31% in 2020

from 41.09% in 2018. Finally, almost half of workers in the service sector work in the informal sector, or about 50.46% in 2020. An increasing number of informal jobs in manufacturing and services have been affected by the pandemic. Many companies and the service sector have had to close their businesses or shift production. The following figure is the proportion of non-agricultural informal employment (service and manufacturing sector) in 2018-2020. Based on VNR 2021, the proportion of informal employment increased from 2019 to 2020 from 60.81% to 65.35%. Efforts to achieve decent work and economic growth targets are to promote development policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro, small and medium enterprises, including through access to financial services.

1.2.1.3 Support small and medium-sized enterprises

Small and Medium Enterprises (SMEs) account for a significant proportion of employment and production especially in developing countries. The World Bank estimates that SMEs account for about 90% of businesses and more than 50% of employment worldwide. One of the key commitments of Indonesia in the New Urban Agenda is promotion of an enabling, fair and responsible environment (NUA §58), and addressing challenges faced by SMEs throughout the value chain. This indicator is for monitoring SMEs' share of GDP. SMEs generate a lot of employment opportunities for men, women and youth. The bigger their share of GDP, generally, the greater the employment opportunities.

The Covid-19 Pandemic has exposed the unequal access to bank credit when comparing small with large enterprises. Many small enterprises do not have a line of credit with a bank, which they can utilize during an unforeseen event like the Covid-19 Pandemic. SMEs are likely to be more vulnerable to 'social distancing' than big companies. Many SMEs are in the sectors like tourism, restaurants and bars. These are sectors that have seen demand fall dramatically. Consequently, many SMEs will not survive the Covid-19 containment measures.

It is crucial that countries know the structure of enterprises in their countries so that they are able to design appropriate policies especially in times of crisis. Statistics data shows that with a total of 64.194.057 units (equals to 99,99% of Indonesian enterprises), Micro, Small and Medium Enterprises (MSMEs) or *Usaha Mikro, Kecil, dan Menengah* (UMKM) has contributed to a large proportion of GDP. In 2018, MSMEs made a contribution of IDR8,573.9 billion whereas the GDP was IDR 14.838,3 billion. By proportion, MSMEs contributed to more than half of GDP (57.8%) in 2018. This figure then increased to 61.41% of GDP in 2019. Such a large contribution, however, went by a huge slope down by 38.14% in 2020 to become 37.3%. Other than GDP, MSMEs contribution is also found in employment. There are 116,978,631 people being employed. Proportionally SMEs absorbed up to 97% of the total employee Indonesia in total (SMEs and Large Enterprises).

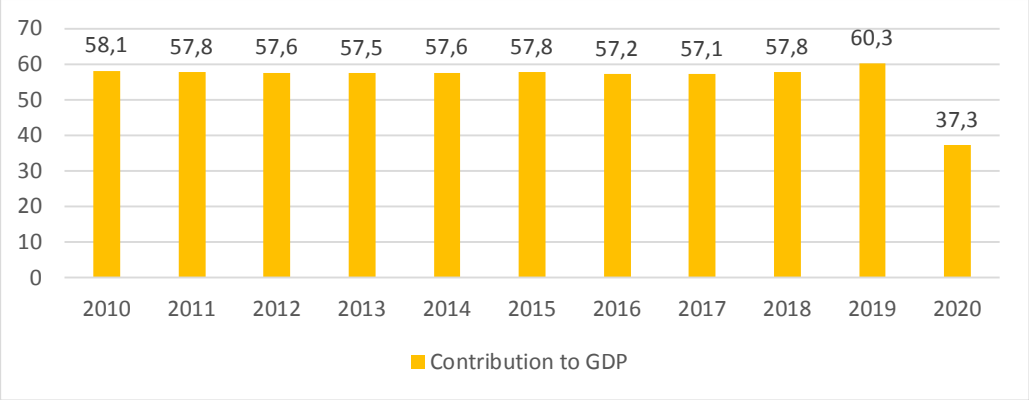


Figure 1. 15 SMEs Contribution to GDP, 2010-2020 (%)
Source: Ministry of Cooperatives and Small and Medium Enterprises

Micro Small Medium Enterprises or UMKM as a representation of the people's economy is the sector that is most often encountered and contributes to the development of Indonesian cities. However, based on data from the Ministry of Cooperatives and Small and Medium Enterprises (2017), Micro businesses only have an average business income of around IDR 76 million per year or IDR 253 thousand per day; Small Business IDR 1.63 billion per year or IDR 5.4 million per day; and Medium Enterprises IDR 29.7 billion per year or around IDR 99 million per day. Meanwhile, the average income for large businesses is around IDR 941 billion per year or IDR 3.15 billion per day (assuming 300 days per year). This means that the productivity of Large Enterprises is 12,394 times greater than that of Micro Enterprises, 583 times that of Small Enterprises, and 32 times that of Medium Enterprises.

However, MSMEs are still not maximally working on digitalization opportunities, so to face the era of the technology-based Industrial Revolution 4.0, it is necessary to develop digitalization which until the end of 2018 has only reached 5% of which go digital. To support MSMEs, especially during the Pandemic COVID 19, the government has created a program of 50 million digitizing MSMEs, and 1000 start-up entrepreneurs in 2020. The increase in MSMEs is also influenced by the era of digitalization in Indonesia so that MSMEs are easier to expand their market through e-commerce. (BPIW, 2019).

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

The New Urban Agenda calls for development of vibrant, sustainable and inclusive urban economies, resource-efficient and resilient infrastructure, promotion of sustainable and inclusive industrial development and sustainable consumption and production patterns and fostering an enabling environment for businesses and innovation, and livelihoods (NUA §45). A government should provide a conducive environment in the market it regulates as competition improves quality of goods and services, lowers cost for both producers and consumers, and creates facilities for those who want to enter any market. A prosperous city should develop a regulatory framework that permits an easy entry of firms into the market.

The number of days to register a new business in Indonesia on average was 13 days. To get a business license or *Surat Izin Usaha Perusahaan* (SIUP), there are processes differentiated between micro, small, medium, and large enterprises that may take 5 to 14 working days. SIUP is required to legally operate a business. Start-up procedures required to start a business, including interactions to obtain necessary permits and licenses and to complete all inscriptions, verifications, and notifications to start operations consist of eleven steps that can either be done fully online or offline. Kediri City implemented the

programmes of simplification of licensing types for the improvement of service quality and investment climate, further details will be explained in the last part of this report.

To promote an enabling, fair and responsible environment for business and innovation, The Indonesian government issues Omnibus Law or Job Creation Law which consists of 11 discussion clusters with several in them, namely: Simplification of business licensing; Investment requirements; Employment; Convenience and protection of MSMEs; Ease of doing business; Research and innovation support; Government administration; Imposition of sanctions; Land acquisition; Investments and government projects; and Economic zone.

The urgency of the Omnibus Law is to take advantage of the potential to get out of the middle income trap, with the demographic bonus we currently have; address the biggest challenges of providing employment; simplification, synchronization and trimming of regulations on many rules and regulations (hyper-regulation), which inhibit the achievement of the goal of job creation, encourage increased investment, so that it will be able to create new jobs, while still providing protection and convenience for MSMEs and increasing protection for workers or laborers; the number of MSMEs is 64.13 million of the total MSMEs with the number of workers in the informal sector of 70.5 million, so to be able to enter the formal sector it is necessary to make it easier starting from the establishment, licensing, and coaching of MSMEs.

The Indonesian government also implemented the OSS (One Submission System) or the Electronically Integrated Business Licensing Service System and the One Stop Integrated Service (PTSP) which are expected to be effective in reducing bureaucracy and facilitating business actors. The government has implemented the Online Single Submission (OSS) as a system that integrates all business licensing services that are under the authority of the Minister/Head of Institutions, Governors, or Regents/Mayors which are carried out electronically. Through the reform of the licensing system, the government is pushing for standardization, making the licensing bureaucracy at the central and regional levels easier, faster, and also more integrated.

The concept of business licensing through OSS, namely using one national portal, one identity for business licenses, and one format for business permits (business permits and operational/commercial permits); business licenses are issued based on commitments that must be fulfilled by business actors; fulfillment of commitments is completed at the ministry/institution/government through OSS.

One of Indonesia's opportunities to enabling, fair and responsible environment for business and innovation is through the digital economy. This digital economy opportunity drives the government to deliver national policy support in order to create the enabling environment for business growth. The Economic Policy Package Number XIV establishes a roadmap for digital commerce, which provides a platform for ease of doing digital business in Indonesia, through e-commerce policy, digitalization of 50 million SMEs and creation of 1000 start-up entrepreneurs by 2020. The government has also published Presidential Regulation or Perpres 82/2016 regarding the National Strategy for Inclusive Finance (SNKI) that will provide room for digital economy activity in Indonesia. In terms of information infrastructure, the government is finalizing the Palapa Ring Project, which will provide ICT service for the whole region, and thus will be able to attract more digital business partner.

The trend of integration of commercial and residential areas connected to industrial function illustrates the essential role of the property sector. Superblocks in metropolitan areas are an example of how integrated property is capable of providing an enabling environment for large-scale investments. Urban development with the main base of industry and logistics also emerged along with the concept of transit. (BPIW, 2017).

1.2.2 Sustainable Urban Prosperity

1.2.2.1 Support the diversification of the urban economy and promote cultural and creative industries

Indonesia committed to promotion of cultural and creative industries, sustainable tourism, performing arts and heritage conservation activities (NUA §60). This indicator measures the percentage of cultural and creative industries employment in total employment. Cultural and creative industries can absorb a significant proportion of workers in a country. It is important for central and local governments to come up with policies to encourage this sector.

The creative economy in Indonesia comprises 16 subsectors: apps and game development; architecture; interior design; visual communication design; product design; fashion; movies, animation, and video; photography; crafts; culinary arts; music; publishing; advertising; performing arts; fine art; television and radio. Creative economy growth by subsector during the period 2011-2017 shows each sub sector had quite dynamic growth. Negative growth had been experienced in architecture, interior design, film, kriya, fashion, television, and art. While some sub sectors experienced relatively flat growth, vast positive growth in advertising happened from 6.96 in 2016 to 11.46 in 2017.

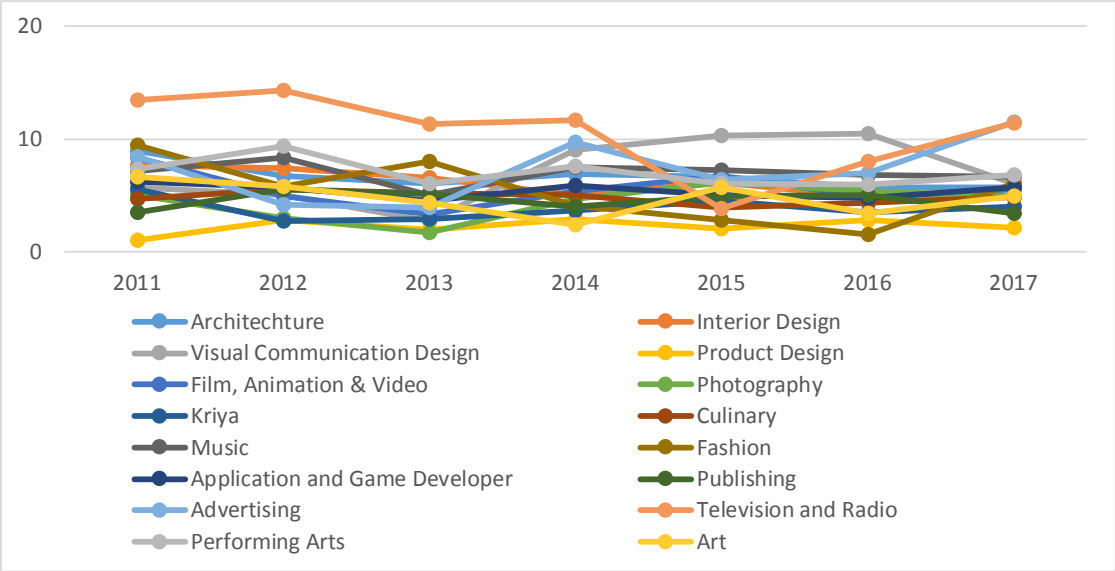


Figure 1. 16 Creative Economy Growth by Subsector, 2011-2017

Source: CEA

Indonesia's creative industry posted strong growth in 2017 contributing 990.4 trillion IDR to the country's GDP. The sector has been consistently recording positive growth equating to 70 trillion IDR in the last three years, from 852 trillion IDR in 2015 to 922.58 trillion IDR in 2016 which accounted for 7.44% of Indonesia's GDP. The creative industry sector's growth is in line with the rapid growth of Indonesia's e-commerce industry. The latter has been growing at a breakneck speed of 60-80% annually and is expected to become a major growth driver of the Indonesian economy. Currently, national e-commerce transactions have reached $25 billion USD and are expected to soar to $130 billion USD by 2020. One of the factors contributing to the growth of the creative economy sector in Indonesia is the change in lifestyles, especially among the millennial generation as this segment is now showing a preference for leisure over goods.

The creative industry sector was able to provide employment to 16.4 million people in 2017, an increase compared to 16.2 million people in 2016. By employment location,

data shows that as of 2016 the majority of creative sector employment was found in Java with the following details: 3.8 million people in West Java, 3.1 million people in Central Java, 2.7 million people in East Java, 1 million people in DKI Jakarta, and approximately 958.000 people in Banten. These five provinces are the main contributors of creative products dominated by culinary, fashion, and art subsectors. One of the good examples of the leading creative industry is Bandung Creative City which will be explained in the last part of this report.

Product development and marketing are other obstacles hampering the growth of Indonesia's creative industry. As a result, 97.36% of its players still only market their products locally. Prior to Covid-19, CEA felt confident that GDP growth of the creative economy could be maintained at 10% per year. Efforts need to be done, however, on business ecosystem by strengthening collaboration as a strategy. Additionally, to further boost the growth of the sector, the government needs to overhaul its regulations. Moreover, to facilitate investment, CEA recently introduced a framework for Investment Readiness Levels (IRL) for fashion, handicrafts, apps and game development, in addition to the culinary subsectors. IRL will serve as a benchmark to assess investment readiness as well as to anticipate technology life cycles and market competition. In addition, investors can use IRL as a reference to investing their money in the creative industry. In recent years, a number of non-banking institutions such as angel investors, philanthropic investor and venture capital have been aggressively approaching local startups. Furthermore, the government, through CEA, continues to provide assistance for generating a creative environment through revitalizing facilities and infrastructure including communication and information technology used for creative development, exhibitions and business incubator centers.

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

Indonesia committed to increasing economic productivity, as appropriate, by providing the labor force with access to income-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 have focused on producing university graduates. Consequently, not enough young people are getting vocational training. Benefits of vocational education and training (VET) depends on the demand for those skills in a country. In many developing countries, some of the workers trained at vocational colleges go into paid employment and some of the workers become productive self-employed entrepreneurs since many economies cannot produce enough formal sector jobs.

The Indonesian government through the Work Training Center (BLK) of the Ministry of Labor provides offline-based training and online services supported by 5,543 credible training institution partners and experienced instructors including Universities, Educational Institutions, Research Bureau, Local Governments, Private Sector, NGOs, BUMN, etc. Based on data from the Ministry of Labor in 2021 there are already 2,693,483 registered trainees with 5,032 available training programs. The types of training available in the Work Training Centre website include sectors: information and communication technology, programming, apparel garment, business and management, tourism, beauty, industry, automotive engineering, processing, welding engineering, building, electrical engineering, electrical engineering, entrepreneurship, digital, design, fashion, manufacturing engineering, creative industry, culinary, art, productivity and so on.

More specific than the BLK, technopark is one of the priorities of the elected president and vice president for the 2014-2019 period as stated in the Nawacita, people's

productivity and competitiveness in the international market. In the 2015-2019 RPJMN, Cimahi City became one of the cities selected in the development of technoparks. Further details on Cimahi Technopark will be explained in the last part of this report.

The purpose of the training is to provide free training to improve the skills and capacity of the working age community especially the youth, to provide training certificates and competency tests from the National Professional Certification Agency (BNSP) for trainees, to facilitate training participants to be able to directly connect to career hub with recruiters to have more career/job opportunity, and to accelerate the reduction of unemployment and expand job opportunities.

The proportion of youth with information and communication technology skills in 2019, has reached 83.58% and has exceeded the specified baseline by 51.83%. The information and communication technology (IT) sector has a growth of more than 9% in 2020, showing the increasing role of the IT sector in the economy through the digital economy. Data on transaction value of e-commerce retail in Indonesia within the period 2013-2018 showed that it has been increasing exponentially since 2016 to become 10.9 billion USD which was dominated by the clothing sector (67.1 %). In 2015, there were 7.4 mllion buyers in which 79.8% were individual buyers.

Growth in the digital economy is supported by the electronic marketplaces as well as electronic transit providers. In 2009, when Uber was established in the USA, Tokopedia in Indonesia was also established. Tokopedia has now become a unicorn e-commerce. Following Uber and Tokopedia, Gojek and Bukalapak were established in 2010. In 2012, Indonesia was at the 5th place in Twitter. By 2018, Gojek already have 1 million drivers and offer 18 various services on its application.

One way of developing those skills is through formal education, specifically tertiary or higher education. The Gross Enrolment Ratio (GER) in tertiary education in Indonesia has risen to 30.85 percent in 2020 from 25.26 percent in 2015, marking a significant increase. The GER for the population living in urban areas, however, experienced a slight dip from the 40.39 percent in 2018 to 38.58 percent in 2020 (Figure 1.17). This could mean that the growth in urban population wasn't matched by subsequent access to tertiary education, which can inhibit the development of a skilled urban workforce.

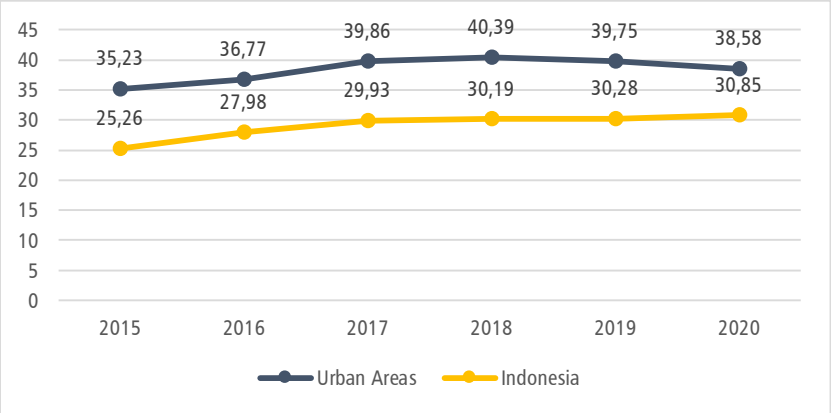


Figure 1. 17 Gross Enrolment Ratio (GER) in Tertiary Education, 2015-2020

Source: (National Development Planning Agency/Bappenas, 2021)

Another way to develop technical and entrepreneurial skills is through vocational training, which not enough young people are getting. Benefits of vocational education and training (VET) depends on the demand for those skills in a country. In many developing countries, some of the workers trained at vocational colleges go into paid employment and

some of the workers become productive self-employed entrepreneurs since many economies cannot produce enough formal sector jobs.

1.2.2.3 Strengthen urban-rural linkages to maximize productivity

The New Urban Agenda calls for participatory urban policies and mainstreaming sustainable urban and territorial development as part of integrated development strategies and plans. It also calls for coherent policy frameworks and fiscal decentralization processes, so that adequate capacities are developed at all levels (NUA §82, 86 and 130). Urbanization has indeed historically been a catalyst for economic growth and social progress, and even holds the possibility for the protection and more efficient use of natural resources, and climate change mitigation and adaptation. However, this positive impact is not automatic, particularly in developing countries - where rapid and/or unplanned urbanization can bring about negative economic, social and environmental externalities with increasing congestion, sprawl, informality, social exclusion and conflict – if the provision of services and infrastructure does not keep up with natural and internal population growth, equitable distribution, migration patterns to the city, etc. A national urban policy (NUP) calls attention to the impact of sectoral governmental policies on the sustainable development of cities and encourages and enables the vertical and horizontal coordination of government departments and their policies to best support it. In Indonesia, there are 21 metropolitan areas in total.

Countries with high population levels certainly need particular policies to control population dynamics, and Indonesia is no exception. Various policies were both issued to suppress the rate of population growth and as a strategy for equitable distribution and control of population growth, especially in large cities. One of the policies related to structuring the area is the New Town Settlement Area Planning implemented by the Ministry of Public Works and Housing of the Republic of Indonesia.

Based on Presidential Decree No. 2 of 2015 concerning the National Medium-Term Development Plan (NMDP) 2015-2019, the policy direction for urban area development is focused on sustainable building and competitive cities towards a prosperous urban society based on physical character, economic potential and local culture. Based on the 2015-2019 National Mid-Term Plan (NMDP), there are 7 new Metropolitans outside Java as National Activity Centers (PKN). The establishment of a new independent and integrated public town around a big city or metropolitan urban area, especially outside Java – Bali is something urgent and must be implemented as part of the middle-low-income community and directed as a buffer for urbanization. This strategy is carried on towards the current 2020-2024 period in which location are spread below.

Figure 1. 18 Distribution of Cities In Indonesia

Source: Ministry of Public Works and Housing of the Republic of Indonesia

Currently, 11 new cities are in the planning stage, including the new town of Pontianak, Tanjung Selor, Padang, the new town of Palembang, Maja, Banjar Baru, Makassar, Manado, Sorong, Jayapura, and the new town of Morotai. In this planning policy, new urban areas as part of urban settlement areas must be well planned, implemented, and managed by incorporating elements of green cities and smart cities, which in turn can support the realization of livable and sustainable residential areas.

1.3 Environmentally Sustainable and Resilient Urban Development

1.3.1 Resilience, Mitigation, and Adaption of Cities and Human Settlements

1.3.1.1 Minimize urban sprawl and loss of biodiversity

Indonesia committed to preserving and promoting the ecological and social function of land, to promoting sustainable land use, combining urban extensions with adequate densities and compactness to prevent and contain urban sprawl (NUA §69). Cities require an orderly urban expansion that makes the land use more efficient. They need to plan for future internal population growth and city growth resulting from migrations. However, frequently the physical growth of urban areas is disproportionate in relation to population growth, and this results in land use that is less efficient in many forms.

Indonesia has rich biodiversity and natural areas that are spread across the country. These areas need to be protected as life support systems. The USAID reported that in 2013, the Ministry of Forestry, Ministry of Maritime Affairs and Fisheries along with several non-governmental organizations conducted a gap analysis of the ecological representation of the region conservation in Indonesia. It is estimated that 80% of biodiversity (ecosystems, species, genetics) of significant value are outside conservation areas.

The government continues to protect those areas through establishing and implementing various regulations to protect the habitat, one of them is through the Essential Ecosystem Areas concept in the Act No. 28/2011. Essential Ecosystem Areas (KEE)

are defined as areas of important ecosystem value located outside the Nature Reserve Area (KSA), Nature Conservation Area (KPA), and Buru Park (TB) which ecologically support the survival of life through biodiversity conservation efforts for the welfare of the community. This means that the areas such as; 1) karst ecosystem, wetlands (lakes, rivers, swamps, brackish and tidal areas No. more than 6 meter) mangroves and peat; 2) the landscapes in which there are endemic habitat and wildlife trajectories; and 3) natural resource reserves in it including the biodiversity parks (kehati); are also protected.

Essential Ecosystem Areas can be directed to the Biodiversity Park which are under the authority of the Regional Government. There have been 72 units of Biodiversity Park that have been built throughout Indonesia. Fifteen of them have been established to manage institutions and designated as an essential ecosystem area.

Indonesia, through the Ministry of Environment and Forestry, continues to give major effort in order to achieve the target of protecting the habitat. In 2020, the achievement of terrestrial protection is planned to reach 17% of land and inland wet areas (32.48 million Ha) and 10% of coastal and marine areas. The current achievement of terrestrial protected areas is 22.48 million hectares. There is still a shortage of 10 million hectares, it is hoped that there will be support for the role of optimizing the management of KEE, wildlife corridors, and High Conservation Value Areas (ABKT).

1.3.1.2 Implement Climate change mitigation and adaptation actions

Indonesia envisaged cities and human settlements that implement disaster risk reduction and management, minimize their vulnerability, develop resilience, preparedness and responsiveness to natural and man-made hazards and nurture mitigation of and adaptation to climate change (NUA §13). The Sendai Framework for Disaster Risk Reduction 2015-2030 is a worldwide agreement to prevent disaster risks and reduce their negative impact. Reducing cities' vulnerability to hazards reduces the risk of economic progress being wiped out and poverty increasing. For example, multi-hazard maps can be used to zone areas in such a way that no residential and commercial buildings are built in areas that can flood. Therefore, multi-hazard maps are key to improving a city's resilience.

Out of 34 provinces throughout Indonesia, there are 24 provinces (70%) that already have Strategic disaster risk reduction (SDRR) documents which were arranged for the period 2012-2016 and one province has a SDRR document for the period 2018-2023. Additionally, out of the 514 regencies/cities in Indonesia, only 173 regencies/cities (34%) have SDRR documents of districts/cities have DRR strategy documents. Meanwhile, Sigi Regency initiated in Building Community Disaster Preparedness and Resilient through School Based Disaster Risk Reduction which implemented in various approach and Semarang City collaborated with various actors to implement urban climate resilientt city programmes. Further details about the Community Disaster Preparedness Programmes in Sigi Rregency and Urban Climate Resilience in Semarang City will be explained in the last part of this report.

The New Urban Agenda calls for lower levels of GHG emissions to achieve environmental sustainability and improve air quality (NUA §65). Indonesia has committed in the 2016 Paris Agreement to maintain the earth's temperature threshold below two degrees Celsius and seeks to reduce it to 1.5 degrees Celsius. This commitment has also been affirmed at the 2021 Climate Change Summit to take concrete actions in controlling climate change, to achieve a 29-41% reduction in carbon emissions by 2030 and eliminate carbon emissions by 2050. Indonesia has adopted the National Action Plan on Climate Change Adaptation (RAN-API) which provides a national framework for adaptation initiatives that has been mainstreamed into the National Development Plan. The medium-term goal of Indonesia's climate change adaptation strategy is to reduce risks on all

development sectors (agriculture, water, energy security, forestry, maritime and fisheries, health, public service, infrastructure, and urban system) by 2030 through local capacity strengthening, improved knowledge management, convergent policy on climate change adaptation and disaster risks reduction, and application of adaptive technology.

A prerequisite for formulation of policies on mitigating climate change is development of a GHG inventory that shows the contribution of different activities to GHG emissions. Indonesia's carbon emissions continue to increase every year. Without deforestation and peat fires from 2000 to 2019, carbon emissions have increased by more than 400,000 GgCO2e to reach more than 900,000 GgCO2e. In 2019, 924,853 Gg CO2e of Greenhouse Gas (GHG) emissions in Indonesia came from forestry (deforestation) and peat forest fires and 638,808 Gg CO2e from the energy sector, namely burning fossil fuels for energy. In this vein, it is crucial to monitor GHG emissions which are a major cause of global warming. This indicator focuses on human activities within cities that directly or indirectly lead to GHG emissions.

Ambient air pollution results from emissions from industrial activity, households, cars and trucks which are complex mixtures of air pollutants, many of which are harmful to health. Of all of these pollutants, fine particulate matter has the greatest effect on human health. Indonesia committed to improving household and ambient air quality in the New Urban Agenda (NUA §67).

The number of deaths due to air pollution in January through July in 2020 showed over six thousand people died due to air pollution in Jakarta alone. If it doubled up throughout the year, the number is estimated could reach over 12 thousand of people died due to air pollution. Meanwhile, the overall number of people died in Jakarta in 2019 only reached 45.137 cases (Statistics Indonesia - DKI Jakarta, 2020). This means that 27% of the overall deaths in Jakarta were caused by air pollution.

The trendline of the concentration of dissolved particles in the air in Indonesia, had the highest concentration in August 2006 reached 145.65 gr/m3 and the lowest in January 2006 which reached 45.04 gr/m3. In December 2015, the concentration of dissolved particles in the air in Indonesia reached a value of 86.22 gr/m3. Air conditions in Indonesia with these concentrations can be said to be moderate (51-150 gr/m3).

Indonesia supported access to different multilateral funds, including the Green Climate Fund, the Global Environment Facility, the Adaptation Fund and the Climate Investment Funds to secure financial resources for climate change adaptation and mitigation plans, policies, programmes and actions for subnational and local governments, within agreed arrangements. Data from the Public Funding for Climate Change Control 2016-2018 from the BKF of the Ministry of Finance only shows the proportion of the budget from the State Budget (APBN). The data available to local governments is only the amount of climate change budgets in eleven local governments, so it is necessary to calculate the proportion to the total Local Budget (APBD) of each city/regency in Indonesia.

Table 1. 2 Budget Allocation for Climate Change in State Budget (APBN) 2016-2018

Year	Budget for climate change mitigation (IDRTriliun)	Budget for climate change mitigation (IDRTriliun)	Budget Portion of climate change mitigation in the State Budget
2016*	72,4	NA	3,6%
2017*	95,6	NA	4,7%
2018	72,2	37,5	4,9%

Source: (MoF, 2021)

The results of climate change budget funding in the city/regency level (11 local governments) in 2017-2020 on average climate change budgets reached IDR 3.01 billion per year. The average mitigation budget is IDR 1.19 billion per year, while the average adaptation budget is IDR 1.82 billion per year. Most of the regional climate change budgets are allocated for climate change adaptation. Around 61% of the climate change budget is directed to adaptation and 39% to mitigation.

Recognizing that relying on the national budget alone will not be sufficient, the government has urgently been looking at untapped resources and new means of financing. One innovative outcome has been the creation of 'Green Sukuk', or Sharia-compliant bonds to finance climate change mitigation and adaptation. Since leading as the world's first sovereign Green Sukuk issuer in 2018, the oversubscription of which signaled huge interest from the global market, the Ministry of Finance has raised more than US$2.75 billion from three annual issuances.

The proceeds have financed and re-financed projects in renewable energy, energy efficiency, sustainable transportation, waste to energy and waste management, as well as climate resilience for vulnerable areas. Further to investing in projects reducing greenhouse gas emissions—projected to be up to 8.9 million tonnes of CO_2e (carbon dioxide equivalent)—proceeds have supported the construction of more than 690 kilometres of railway tracks; an increase of 7.3 million kWh of electricity; and improved solid waste management for more than five million households.

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

In the New Urban Agenda, Indonesia committed to strengthening the resilience of cities and human settlements with ecosystem-based approaches and by mainstreaming holistic and data-informed disaster risk reduction and management at all levels to reduce vulnerabilities and risk in line with the Sendai Framework for Disaster Risk Reduction 2015-2030 (NUA §77).

Data on the Percentage of Households Participating in Natural Disaster Simulation and Rescue Training (%) in 2014-2017 shows that in 2014 as many as 98.80% of households have not participated in simulation and rescue training for natural disasters and know the signs of natural disasters. Only 1.20% of households have attended training in simulation and rescue of natural disasters and know the signs of natural disasters in 2014, and this increased to 2.39% in 2017. Below is the Percentage of Households Participating in Disaster Simulation and Rescue Training Nature and knowing the signs of natural disasters (%) in 2014-2017.

Many urban centers and their inhabitants are vulnerable to natural and human-made hazards, such as earthquakes, flooding, storms, water and air pollution, diseases (including Corona virus pandemics) and sea level rise. In this context, Indonesia envisioned cities that adopted and implemented disaster risk reduction and management, reduced vulnerability, built resilience and responsiveness to natural and human-made hazards and fostered mitigation of and adaptation to climate change (NUA §13, 64, 65). One way to reduce the impact of natural and man-made disasters is to substantially increase the availability and access to multi-hazard early warning systems and disaster risk information and assessment to people.

It can be seen that there are four resilient cities in Indonesia (National Development Planning Agency/Bappenas, 2019). There are also 19 weather and climate early warning systems and disasters. Policies related to disaster resilience infrastructure have been outlined in the 2020-2024 NMDP including (1) Development of disaster-resilient

infrastructure and strengthening of vital infrastructure, (2) Integrated management of disaster-prone areas; and (3) Restoration and conservation of watersheds.

Responding to Covid-19, the government of the Republic of Indonesia has made major efforts by providing healthcare, financial assistance, as well as economic recovery programs. Soon after the first case of Covid-19 in Indonesia was found, the Control Task Force was established. At the end of March 2020, the Government Regulation No. 21 of 2020 was enacted that allows local governments to carry out the emergency programmes in health services under the approval of the Minister of Health.

Local governments carried out both Large-Scale Social Restrictions / LSR (Pembatasan Sosial Berskala Besar / PSBB) and Micro-Scale Social Restrictions / MSR (Pembatasan Sosial Berskala Kecil / PSBK) to break the chain of transmission of the virus in Indonesia. In total, there were 2 provinces and 16 cities that carried out the restrictions in April 2020. Furthermore, other than the regulations that aim for the large-scale activity restrictions, individuals and communities actions were also taken during the pandemic. Each individual is encouraged to adjust the health protocol in their everyday life called 5M; Mencuci tangan (wash hands), Memakai masker (use mask), Menjaga jarak (keep the minimum distance), Menjauhi kerumunan (avoid crowds), and Mengurangi mobilitas (reduce the mobility). The protocol aims for the individuals to protect from the virus. Meanwhile, the 3T (testing, tracing and treatment) system continues to be implemented with the help of the communities; to break down the transmission chain of the virus.

Alongside with the health protocols, the vaccinations program started in early January 2021 aiming for vulnerable people as the prioritized groups. The phasing and determination of priority groups for vaccine recipients is carried out by taking into account the World Health Organization (WHO) Strategic Advisory Group of Experts on Immunization (SAGE) Roadmap as well as a study from the National Immunization Expert Advisory Committee (Indonesian Technical Advisory Group on Immunization). The first stage of the vaccination program was done exclusively for frontline medical workers in January-April 2021, followed up with the second stage for public workers and elderly people. Meanwhile, the vaccinations for the general public started in early July 2021 which was then followed by children aged 12 years old and above in mid July 2021. In total, 58 million and 32 million people have received the first dose and second dose respectively in late August 2021 and the vaccination rate has reached 1 million people per day. Majority of vaccinations are managed centrally through government healthcare system, which in the end have also incorporated digitalization on registry and certification process. Nevertheless, vaccination injections have also been managed by other parties, such as private companies.

Indonesia has also made an effort to increase the Bed-Occupancy-Ratio of hospitals by retrofitting flats into emergency hospitals. The Nagrak low-cost apartment complex (Rusunawa) in North Jakarta and Pasar Rumput Rusunawa in South Jakarta are two of the latest flats converted into COVID-19 isolation facilities reserved for asymptomatic and patients with light COVID-19 symptoms. The former athletes village emergency hospital in Kemayoran, Central Jakarta, which had a capacity of at least 7,000 patients, designated to treat moderate and severe cases.

In July 2021, further mobility restrictions were taken in order to suppress the increasing rate of infection and prevent the spreading of the new Delta variant of Covid-19 outbreak through tighter activity and curfew program known as Emergency Public Activity Restrictions (Pemberlakuan Pembatasan Kegiatan Masyarakat / PPKM darurat. Finally, Covid-19 optimization was managed by handling command posts on micro-level and the implementation of PPKM level 3 to 1 which was set in Instruction of Minister of Home Affairs No. 15 and 26 the year 2021. As a result, the trend of Covid-19 active cases had dropped from 574,135 cases at the highest point on 24 July to 273,750 cases on 24 August 2021.

1.3.1.4 Build urban resilience through quality infrastructure and spatial planning

In the New Urban Agenda, Indonesia committed to strengthening the resilience of cities and human settlements with ecosystem-based approaches and by mainstreaming holistic and data-informed disaster risk reduction and management at all levels to reduce vulnerabilities and risk in line with the Sendai Framework for Disaster Risk Reduction 2015-2030 (NUA §77).

The Sendai Framework for Disaster Risk Reduction 2015-2030 is a worldwide agreement to prevent disaster risks and reduce their negative impact. Its objective is to improve social and economic resilience; as well as reducing the adverse effects of climate change and man-made hazards. Over the past two decades, the frequency and intensity of natural hazards (like hurricanes/cyclones) has increased substantially. These disasters cause many deaths, loss of livelihoods, destroy infrastructure and the environment. Disasters wipe out economic progress and perpetuate poverty. Hence, reducing cities' vulnerability to hazards reduces the risk of economic progress being wiped out and poverty increasing. For example, multi-hazard maps can be used to zone areas in such a way that no residential and commercial buildings are built in areas that can flood. Therefore, multi-hazard maps are key to improving a city's resilience.

A preliminary overview of data on percentage of cities with multi-hazard mapping can be seen on the inaRisk website (https://inarisk.bnpb.go.id/), but each province, district and regencies may have different layers of hazards subject to its specific geographic location. On the website, there is information provided based on hazard type: flood, flash flood, extreme weather, abrasion, earthquake, forest fire, drought, volcanic eruption, landslide, tsunami, and multi-hazard. On this website, users can choose based on resilience factors (hazard, vulnerability, capacity and risk), types, and other detailed characters such as topography, riverbanks, etc. While most of the multi-hazard mapping is available, not all of them are further measured by capacity and risk assessment.

The Inarisk website also provides report on Indonesian disaster risk index (Indeks Risiko Bencana Indonesia / IRBI). Form the report, it is known that 514 regencies and cities, as well as 34 provinces have disaster index ranging from medium to high. This is index is measured by multi-hazard, however specific hazard type and index is also provided.

Figure 1. 19 Multi-hazards Map of Indonesia
Source: https://inarisk.bnpb.go.id/

Other than multi-hazard maps, a map on infrastructures prone to land movement is also available and developed by the Ministry of Public Works and Housing of the Republic of Indonesia.

Figure 1. 20 Infrastructure Prone to Land Movement
Source: https://sitaba.pu.go.id/

1.3.2 Sustainable Management and Use of Natural Resources

1.3.2.1 Strengthen the sustainable management of natural resources in urban areas

Indonesia committed to facilitating the sustainable management of natural resources in cities and human settlements while protecting and improving the urban ecosystem and environmental services, reducing greenhouse gas emissions and air pollution and promoting disaster risk reduction and management and enabling economic development (NUA §65). Material footprint of consumption reports the amount of primary materials required to serve the final demand of a country and can be interpreted as an indicator for the material standard of living/level of capitalization of an economy. Per-capita MF describes the average material use for final demand.

DMC reports the amount of materials that are used in a national economy. DMC is a territorial (production side) indicator. DMC also presents the amount of material that needs to be handled within an economy, which is either added to material stocks of buildings and transport infrastructure or used to fuel the economy as material throughput. DMC describes the physical dimension of economic processes and interactions. It can also be interpreted as long-term waste equivalent. Per-capita DMC describes the average level of material use in an economy – an environmental pressure indicator – and is also referred to as metabolic profile.

According to UN-ESCAP in 2016, Indonesia had a 29.12% lower domestic material consumption (DMC) intensity compared to 2000. The DMC Intensity of Indonesia is 1.81 (kg per 1 US dollar (2010 GDP)) in 2016. This number is lower than the Average DMC Intensity of South-East Asia which is 2.11 and Average DMC Intensity of Asia-Pacific region which is 2.04. This indicates decrease of material resources used per unit of economic output, implying improvement of resource efficiency over this period. In 2016, Indonesia is more resource efficient in terms of usage of material resources compared to the Asia-Pacific

regional average. According to the data below, the amount of material footprint per capita in Indonesia increases every year. In 2005 to 2017 the amount of material footprint per capita increased 1.6 tons per capita, the average growth of material footprint per capita is 0.1 tons per year.

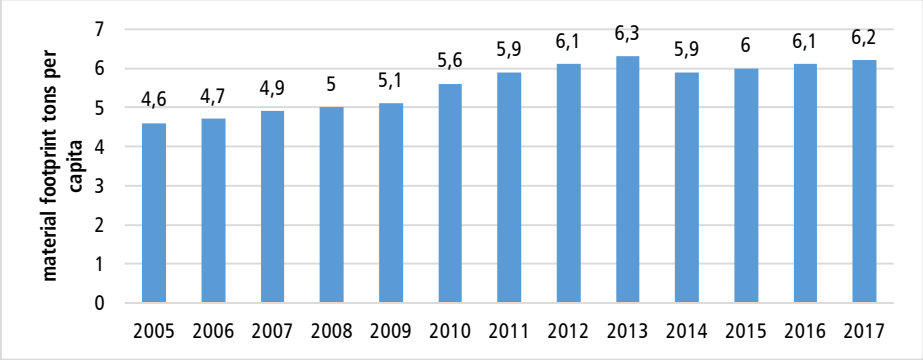


Figure 1. 21 Material Footprint Per Capita in 2005-2017
Source : Statistics Indonesia

The SDG Agenda Item 33 defines natural resources as “oceans and seas, freshwater resources, as well as forests, mountains and drylands and to protect biodiversity, ecosystems and wildlife “. Efforts for conservation movement in the community for the natural resource is the existence of conservation cadres as pioneers and drivers of conservation efforts for living natural resources and ecosystems (GoI, 2021).

Challenges on natural resource and environmental damage are caused by violations of law in the field of natural resources and the environment, such as illegal logging, forest and land fires, mining without permits, and illegal forest control (GoI, 2021). In addition, there is a reduction in the ideal habitat area for endangered species on four large islands (Sumatera, Java, Kalimantan and Sulawesi) which is driven by an increase in monoculture plantation areas which further depress forest cover and can lead to increased loss of biodiversity if not treated immediately. Another obstacle faced in restoring ecosystems is the settlement of land tenure status (clear and clean) so that land conflicts can be avoided. Policy response for natural resource and environmental challenge is the recovery of pollution and damage to natural resources and the environment, which is carried out by: (1) restoration and restoration of peatlands; (2) forest and land rehabilitation; (3) restoring ex-mining and land contaminated with B3 waste; (4) restore damage to the coastal and marine environment; (5) restoring the habitat of endangered species; and (6) increasing the population of endangered wild plant and animal species.

This indicator is used to monitor progress under the theme “Sustainable Management and Use of Natural Resources” and category “Strengthen the sustainable management of natural resources in urban areas”. The basis for selecting this indicator are the commitments (including NUA §65) that call for the sustainable management of natural resources in cities and human settlements in a manner that protects and improves the urban ecosystem and environmental services, through environmentally sound urban and territorial planning.

Green areas are defined as public and private areas that have flora such as plants, trees and grass (e.g. forests, parks, gardens). These areas capture some of the CO2 emissions and release oxygen as green spaces contribute to the environmental sustainability of a city. This indicator provides information about the amount of geographical space that the city dedicates to green space. A prosperous city seeks to increase the green areas per capita to have better air quality and improve the quality of life of its population. Green areas make a city more beautiful and pleasant to live in.

Based on Law Number 26 of 2007 concerning Spatial Planning, the proportion of green open space in the city area is at least 30% of the area of the city, which consists of 20% of public green open space and 10% private green open space. By the enactment of Omnibus Law Number 11 of 2020, there will be adjustments related to green open space, where the spatial planning must include the integration of the settlement system, infrastructure, open space system, both green open space and non-green open space. Based on the National Medium Term Development Plan 2020-2024 the area of managed conservation forest in Indonesia is 27.43 million hectares.

1.3.2.2 Promote resource conservation and waste reduction, reuse, and recycling

This indicator will be used to monitor progress under the theme “Sustainable Management and Use of Natural Resources” under category 1.3.2.2 “Promote resource conservation and waste reduction, reuse and recycling”. In the New Urban Agenda (NUA §74), Indonesia committed to promoting environmentally sound waste management by reducing, reusing and recycling waste, minimizing landfills, reducing marine pollution and converting waste to energy when that choice delivers the best environmental outcome.

The achievement of Recycling rate, tons of material recycled (SDGs 12.5.1) based on Report Goal SDGs 2019 shows that The amount Recycling rate/material recycled in 2019 was 8.02 million tons, which is still very far from the target of 61.5 million tons. Nonetheless, in accordance with Presidential Regulation of the Republic of Indonesia, Number 97 of 2017 concerning National Policies and Strategies for the Management of Household Waste and Types of Household Waste, the target for reducing waste in 2025 is 30% of the total waste generation. To achieve this target, it is necessary to optimize the facilities that have been built as an effort to reduce the waste that goes to the Landfill (TPA). Utilization of Reduce, Reuse, Recycle Waste Processing Sites (TPS3R) and the development of Waste Bank activities are alternatives in efforts to reduce waste generation. Of course, the active role of the community, managers, and related stakeholders is needed to optimize activities at TPS3R and this Waste Bank.

PLTSa (solid waste power plant) is also built based on Presidential Regulation Number 18 of 2016 concerning Acceleration of Construction of Waste-Based Power Plants. An example of local government support of 3R waste is Kang Pisman (Reduce, Separate, Take the advantage) website developed by the Bandung municipality. The city of Bandung started this initiative in 2018. The Bandung municipality launched a movement, collaboration between the government, citizens, the private sector and others in building a new civilization of more advanced waste management. In 2021 Kang Pisman has 1.810 waste bank members, 835 cadres, and 70 hubs.

ICT has also helped in the process. Octopus, for example, is an application to deposit used packaging to recycle. It has 3 different mobile apps for consumers, waste collectors, and waste production business actors (checkpoints). Established in 2020, Octopus has more than 75.000 users, more than 9000 waste collector partners, and 2065 waste banks. Operating in several cities, including Makassar, Denpasar, and Bandung, Octopus has collected 9.9 million of waste.

Efforts for waste reduction are also integrated with the economic sector in the circular economy concept. Economic trends that occurred in the cities of the future must also consider the environmental services (circular economy). Circular economy is an economic model that has the principle of efficiency in materials and energy, becoming an integrated loop with reuse, reduce, recycle, remanufacture, refurbish and repair schemes (State of Indonesian Cities 2019).

1.3.2.3 Implement environmentally sound management of water resources and coastal areas

Many cities across the globe are located in coastal areas, delta regions and islands. These cities are particularly vulnerable to hurricanes/cyclones, flooding, subsidence and sea level rise (NUA §64). It is very important for such countries to have an enforced coastal land management plan. Such plans can mitigate the impacts of these hazards. The rationale for this indicator places emphasis on safeguarding protected areas which are key to slowing the decline in biodiversity and ensuring long term and sustainable use of marine natural resources. The establishment of protected areas is crucial for achieving this objective.

The area of Water Conservation Areas that are managed sustainably (KKP) has decreased by 2.46 million hectares from 7.8 million hectares (in 2014) to 5.34 million hectares (in 2016). The Statistics Indonesia Susenas 2018 showed number of Water Conservation Areas (Hectares), which comprised of Marine National Parks, Marine Tourism Parks, Wildlife Sanctuaries, Marine Nature Reserves, Aquatic National Parks, Aquatic Nature Reserves, Aquatic Tourism Parks has constant amount of area from 2015 to 2017. However, there was a decrease by 1,841,947 hectares in the area of the Regional Water Conservation Area to 7,265,777 hectares in 2017.

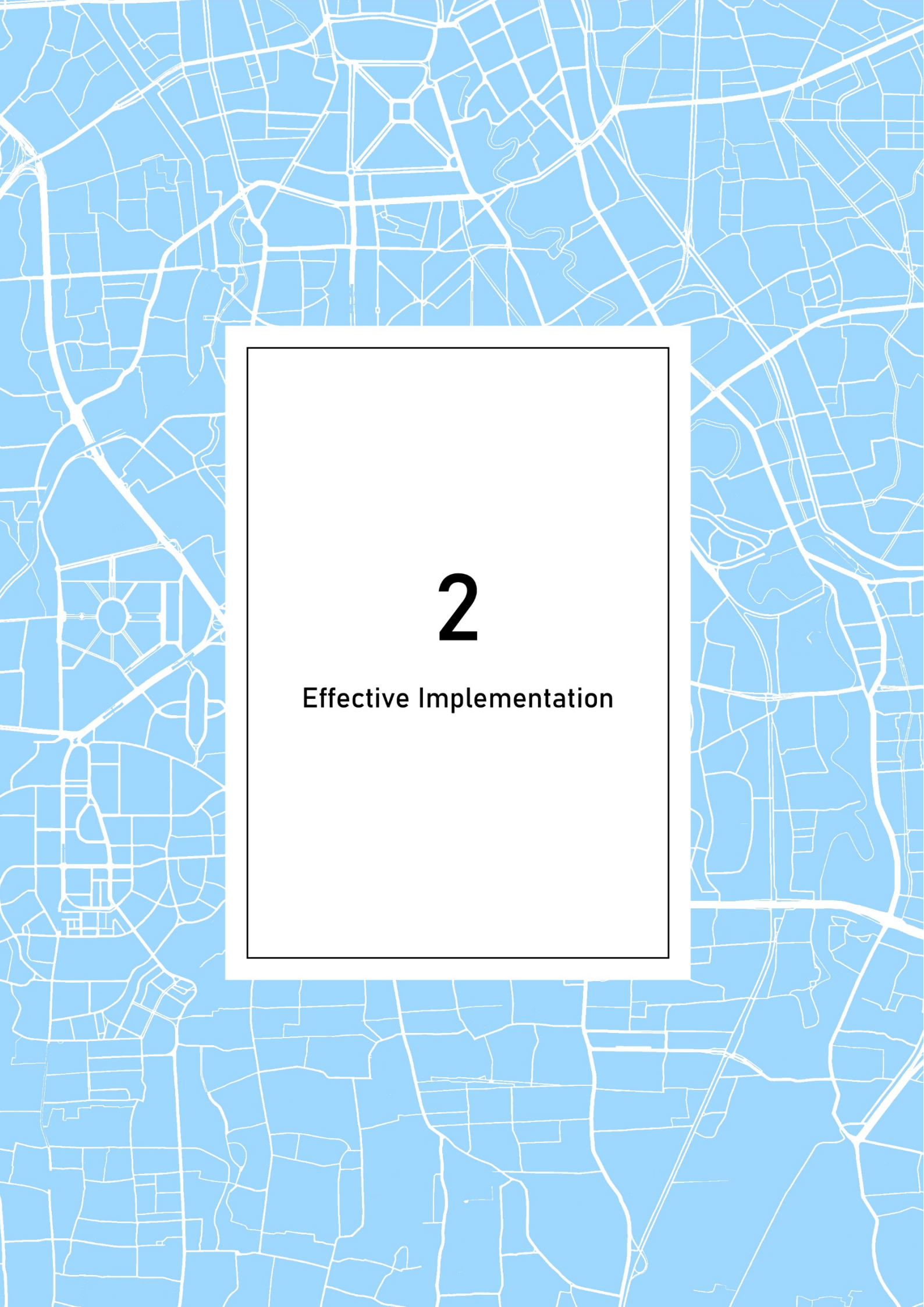
1.3.2.4 Adopt a smart-city approach that leverages digitization, clean energy and technologies

Indonesia recognized that urban form, infrastructure and building design are major sources of cost and resource efficiencies. In addition, economies of scale and agglomeration fosters energy efficiency and sustainable growth in the urban economy (NUA §44). Indonesia committed to ensure universal access to affordable, reliable and modern energy services by promoting energy efficiency and sustainable renewable energy and supporting subnational and local efforts to apply them in public buildings, infrastructure and facilities, to encourage the adoption of building performance codes and standards, renewable portfolio targets, energy-efficiency labelling, retrofitting of existing buildings, among other modalities as appropriate, to achieve energy-efficiency targets (NUA §121). In relation to green building policy, Indonesia has the obligation of sustainable building as ruled in the Law Number 28/2002 about Building on article 3. This Law has been further defined in Public Works and Housing Ministerial Regulation Number 21/2021 about Performance Assessment of Green Building. Green building technical standard fulfillment is divided into 2 categories, each category has its building class and area requirements. The assessment may result in three rating levels: primary, intermediate and advance.

In compliance with this rule, the Ministry has built traditional markets, with the help of BIM technology, which have also been awarded with green building ratings. Legi Ponorogo and tempe Sengkang markets have received the highest at advance level. Another achievement of the Ministry is gained with its office building at Pattimura due to its ability to save energy and water. Awards have been given by the Ministry of Energy and Mineral Resources as well as the ASEAN. Another office In Bandung, Grha Wiksa Praniti, in 2020 has received ASEAN energy awards in the category of Energy Efficient Building for Tropical Building.

In the New Urban Agenda, Indonesia advocated adoption of a smart-city approach that leverages digitization, clean energy and technologies as one of the solutions to traffic congestion. This indicator will monitor the number of eligible street junctions that have traffic lights connected to the traffic management system in the cities. Large cities install traffic lights that are connected to traffic management systems as a solution for reducing traffic congestion. In Jakarta by 2019, for example, there are 96 traffic lights integrated to ITS **ATCS** (Intelligent Transport System Area Traffic Control System).

Data on percentage reduction in annual final energy consumption in homes using smart monitoring systems is not available. Nonetheless, the Indonesian government has made notable efforts on the city scale. Presidential Decree number 95/2018 about Electronic Based Governance System. Additionally, Jakarta, MakasSar, and Banyuwangi were chosen for ASEAN smart cities network (ASCN). Pilot master plan for smart city has been made for 25 cities/regions in 2017 and followed by 50 more in 2018 as part of 100 smart city initiative.



2

Effective Implementation

2.1 Building Governance Structure: Establishing a supportive Framework

Decentralization for urban areas, especially for its management, has evolved with an attempt to simplify the types of management. There are less types of management for metropolitan areas or unincorporated urban areas. However, efforts to monitor performance are improved, promoted by the Ministry of Home Affairs.

2.1.1 Decentralization to enable subnational and local governments undertake their assigned responsibilities

Adherence to rule of rule of law in management of local authorities is a prerequisite for efficient management practices. The New Urban Agenda calls for metropolitan governance that is inclusive and based on legal frameworks (NUA §90).

Since the reform of 1998, decentralization in Indonesia shifts substantially from the previous period. A level of autonomy exercised by local governments, through direct elections, has created dynamics on local development that have not been experienced since the Old Order Era. Citizens experience local democracy not only through participation in elections of mayors and members of city councils but also through engaging in open, participatory discussions and gaining access to communicating with local authorities.

The period of 1999-2004 the local governments in Indonesia have had the autonomy to plan and build their cities. It was followed by the direct local elections in 2008 in which the vision and mission of the elected leader would be used as a reference for preparing a mid-term development plan. The changing structure in the government system, rapid and massive urbanization, fast environmental changes, and progressive communication and information technology are demanding a good governance framework. The consistent national regulatory system would create an enabling environment for cities to develop effective and inclusive governance. Having strong leadership, increasing urban financial capacity, encouraging active stakeholders, and promoting collaborative works are few of the initiatives and practices that occur in Indonesian cities.

In integrating the urban governance policies, the complexity of urban issues has led to various sectoral policies to solve the urban problems. The decentralization period (2000-present) generated more urban policies and programs regarding number and variation compared to those produced in the centralization period (1945-2000). The lack of norms that regulate urban governance issues at the national level during the decentralization period creates an overlap of regulations in city governance in Indonesia.

The key regulation regarding urban governance is the Law Number 23/2014 regarding the local government. City government is categorized as a part of local government. This law has changed three times. It followed Presidential Regulation Number 38/2004 regarding the division of central-regional authority.

A national Law No 23 of 2014 on decentralization allows for selected authorities given to municipalities/ regencies from the national government and some are to the provincial governments. Partial authority in several sectors such as mining activities, ocean and fisheries, high school education is decentralized to provinces. The national government maintains the authority on managing border regions and housing for low-income groups in addition to the sole purview of national defense, international relations, justice, statistics, fiscal and finance matters, and religions. Another important law was adopted in 2014, Law No 6 of 2014 on villages' governance and finance. Villages are recognized as self-governing entities and obtain broader authority and resources. Budgets for villages are allocated from direct financial transfer from the National level (Village Fund/Dana Desa) and through regencies or municipalities (Village Fund Allocation/Alokasi Dana Desa). With such

allocations, villages are required to develop their own LMDPs, LAWPs and LABAs (Indonesia National VSR 2020).

Table 2. 1 Regulations Related to Urban Governance

Year	Policy Regulations	Important Remarks
1999-2004	Law number 2/1999 Law number 22/2003	The election of mayor was carried out by the legislatures The executives were responsible for the legislation process The legislatures were equal partner of the executives
2004 – 2014	Law number 32/2004 Law number 8/2005 Law number 12/2008	The election of mayor was carried out directly by the citizens The legislation process was started to manage by the legislative as the legislative council within the local parliament was established. Public participation were taken into consideration during formation process of the local regulation Mayor work with the Governor as the representative of the central government
2014 – present	Law number 23/2014 on local governments Law number 2/2015	Similar as in the previous period, mayor was directly elected by the citizen Improvement of the legislation role of the local parliament Mayor work with Governor as the representative of the central government.

Source: (Ministry of Public Works and Housing of the Republic of Indonesia, 2017)

2.1.2 Linking urban policies to finance mechanisms and budgets

In the New Urban Agenda (NUA), Indonesia committed to: Mobilize endogenous resources and revenues generated through the capture of benefits of urbanization (NUA §132). Based on VNR SDGs 2021, it can be seen that the Proportion of the Domestic Budget Funded by Domestic Tax from 2019 to 2020 has decreased from 65.18% to 62.60% on the following table of proportion of the domestic budget funded by domestic taxes from 2016 to 2020.

Table 2. 2 Proportion of Domestic Budget Funded by Domestic Taxes

Indicator	2016	2017	2018	2019	2020
Proportion of domestic budget financed by domestic taxes (%)*	67.02	64.98	67.01	65.18	62.60
Total Spending**	1864.3	2007.4	2213.1	2309.3	2739.1
+ Central Government**	710.3	742.0	757.8	813.0	763.9
+ Transfer to Sub-national Governments**	1154.0	1265.4	1455.3	1496.3	1975.2
Domestic Revenue**	1546.9	1645.7	1928.1	1955.1	1698.6
+ Tax**	1285.0	1343.5	1518.8	1546.1	1404.5
+ Non-Tax**	262.0	311.2	409.3	409.0	294.1

Source: Bappenas, 2021

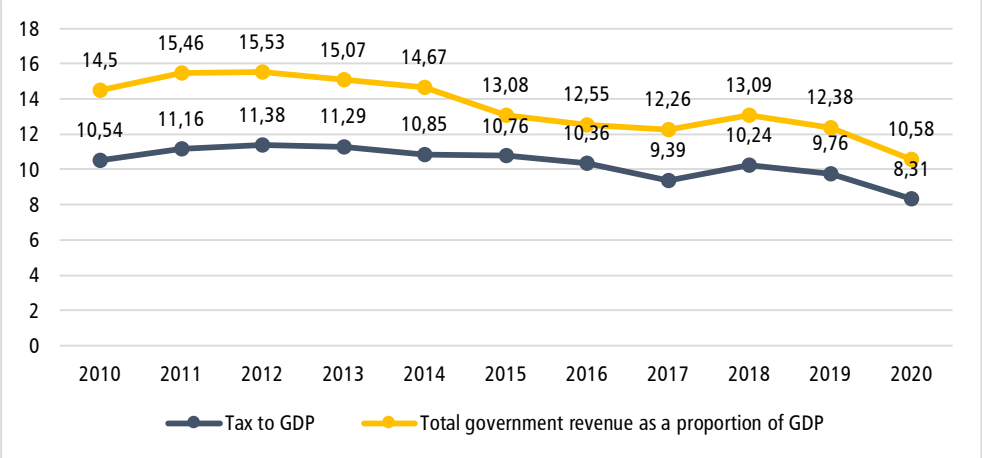


Figure 2. 1 Government Revenue and Tax

Source: (National Development Planning Agency/Bappenas, 2021)

The tax ratio tends to weaken with the lowest level found in the last decade: only 8.31%. This continues the declining trend that has occurred since a decade ago, albeit the lower-bound taxable income had been lifted-up and a tax amnesty had been once introduced in 2017-2018 through Law 11/2016. From this depiction it can be therefore evidently be seen that the capacity of the government to generate revenue through the tax system in 2020 shrank significantly. The lower capacity of the government to generate revenue directly affects the proportion of domestic spending financed by domestic tax to decrease. This worsened the situation in 2018-2019 when the proportion fell from 67% to 65%, then became 6.6% in 2020.

2.1.3 Develop legal and policy frameworks to enhance the ability of governments to implement urban policies

This indicator monitors the existence of legal and policy frameworks that ensure that there are forums that allow effective participation of groups in decision-making, planning and follow-up processes as well as implementation of effective local and metropolitan multilevel governance. It also monitors whether there exists appropriate political, fiscal and administrative decentralization based on the principle of subsidiarity (NUA §41, 89 and 90).

The future of cities must be one shaped by laws that address the lived experience of households and firms. These laws must: offer a reasonable trade-off between the costs and benefits of compliance; reflect the current context; be the product of consultative, inclusive processes; be economically and politically inclusive while creating the basic preconditions for economic growth; protect the interests of the public (with a focus on the poor) when confronted by stronger commercial and political interests; promote stable and sustainable urban governance; and build strong social contracts between state and non-state actors.

In Indonesia, based on Government Regulation No 34 of 2009 on Guidelines for Management of Urban Areas, there are three categories of urban areas. First are urban areas as a municipality or an autonomous region, second, an urban area that is a part of a regency region, and third urban areas an area that functionally has urban characteristics and consists of two or more regencies/municipalities in one or more provinces.

In an effort to maintain harmony and integrity in the future of urban areas in Indonesia, since the implementation of the decentralization in the 2000s, the local governments in Indonesia have been contributing to make legal and policy frameworks in

field of Municipal and Regency Spatial planning (RTRW Kota/Kabupaten) based on Spatial Planning and Long-Term Development Plan on National and Province level. The Municipal and Regency Spatial planning focus on spatial aspects, such as spatial structure plan, spatial pattern plan and land use control directions for 20 years.

Furthermore, the Detailed Spatial Plans (RDTR) is an important aspect for future development, be it for city expansion or developing a new city. The RDTR focuses on detailed arrangement for region spatial planning for municipal City or urban areas that are a part of a regency region. The RDTR will include various spatial aspects; including housing, disaster risk, protected areas, etc. In Indonesia, there are at least 55 cities and regions that have the Detailed Spatial Planning (RDTR) and are already established into regulations. The Ministry of Agrarian and Spatial Planning/National Land Agency is planning to double it up to reach 110 cities/regions to have their own Detailed Spatial Planning. In 2021, all of the municipal cities (93 cities) in Indonesia already have legal Municipal Spatial Planning and 18 cities out of 93 municipal cities have the Detailed Spatial Planning (RDTR) and are already established into regulations.

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

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Indonesia committed to promoting capacity-development programmes to assist subnational and local governments in financial planning and management, focusing on environmental sensitivity and anti-corruption measures, embracing transparent and independent oversight, accounting, procurement, reporting, auditing and monitoring processes, among others, and to review subnational and national performance and compliance, taking into account age- and gender-responsive budgeting and the improvement and digitalization of accounting processes and records, in order to foster results-based approaches and increase medium- to long-term administrative and technical capacity (NUA §151).

Decentralization for urban areas, especially its management, has evolved with attempts to simplify the types of management. There is less management of unincorporated urban areas, or metropolitan areas. However, efforts to monitor performance are improved, promoted by the ministry of home affairs. Performance delivery standards is an important aspect to strengthen the capacity of governments. In Indonesia, one of the delivery standards which is Key Performance Indicators, hereinafter referred to as IKK as a performance indicator that describes successful implementation of a business government, in which is reported in the Local/National Government Implementation Report.

Based on Government Regulation No 34 of 2009 on Guidelines for Management of Urban Areas, Development Cooperation Agency is also encouraged to be established, allowing for inter-municipalities cooperation to spatial integration development

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

Indonesia committed to creating inclusive platforms for meaningful participation by all stakeholders, to promote effective participation and collaboration among relevant stakeholders (NUA §41 & 48). [2]. The government has been mandated to implement a strategy built to integrate gender into an integral dimension of planning, implementing, monitoring, and evaluating national development policies and programs.

According to President's Instruction No.9/2020 Concerning Mainstreaming of Gender In Development. The government has been mandated to implement a strategy built to integrate gender into an integral dimension of planning, implementing, monitoring, and evaluating national development policies and programs.

Data on the proportion of cities with a direct participation structure of civil society engagement in urban planning and management, which are regular and democratic, is yet to be available. Nonetheless, there are numerous planning dialogues taken at various levels from national to local village level. One example of national level can be found at the Sustainable Urban Development Planning Dialogue Forum in which institutions can participate in achieving sustainable urban development. At the local level, from village, sub-district, city and district, *Musyawarah Perencanaan Pembangunan (Musrenbang)* is regularly being held yearly in January to have discussions and reach agreement between stakeholders on development work plans. Equality and non-discriminative is one of the principles in conducting such participatory events.

National Children Forum (Forum Anak Nasional (FAN) is an organization guided by the Ministry of Women Empowerment and Child Protection, to bridge communication and interaction between government and children in order to fulfill children participation rights. Currently, FAN are found in 170 villages, 267 districts, 406 municipalities, and 31 provinces. One main requirement to be a member of FAN is to be children or under 18 years old. One successful example of FAN is found at Banjarmasin, where children have played as pioneer as well as reporter through the work program of replacing cigarettes with candy.

Gender responsive approaches are also implemented in infrastructure development under the Ministry of Public Works and Housing. Gender Mainstreaming is applied in waste and sanitation services in the planning process of construction and post-construction implementation of Community-Based Sanitation (SANIMAS) activities. The SANIMAS activity is the provision of government assistance funds, as a form of initiative to provide infrastructure and facilities for responding to needs. The focus of SANIMAS activities is the handling of domestic household wastewater. Through the implementation of Community-Based Sanitation, the community chooses the appropriate domestic wastewater infrastructure and facilities, forms a Community Self-Help Group (KSM), actively participates in preparing action plans and carries out physical development and forms a Benefit and Maintenance Group (KPP) to carry out the management of operations and activities maintenance.

Other than SANIMAS, gender mainstreaming is also applied in waste management. TPS 3R infrastructure approach emphasizes more on how to reduce, utilize, and treat waste from the source on a communal scale (residential areas, commercial areas, office areas,

[2] According to President's Instruction No.9/2020 Concerning Mainstreaming Of Gender In Development.

educational areas, tourist areas, and others). The implementation of the 3R TPS is directed at the concept of Reduce, Reuse and Recycle, which is carried out to serve a group of people (including in low-income areas) serving a minimum of 200 houses or families.

Table 2. 3 Number of Men and Women Participation to TPS-3R and SANIMAS Program

	Number of Location	Men	Women	Total
TPS-3R				
2019	6	782	289	1,071
2020	139	10,835	2,745	13,580
TOTAL	145	11,617	3,034	14,651
SANIMAS				
2019	41	7,628	3,779	11,407
2020	225	16,581	5,363	21,944
TOTAL	261	24,209	9,142	33,351

Figure 2. 2 Community Involvement in Sanimas and TPS-3R
Source; Ministry of Public Works and Housing of the Republic of Indonesia, 2021

2.1.6 Promote women's full participation in all fields and all levels of decision-making

The New Urban Agenda calls for achievement of gender equality and empowering all women and girls by ensuring women's full and effective participation and equal rights in all fields and in leadership at all levels of decision-making51 and addressing of multiple forms of discrimination faced by women and girls, as well as other vulnerable population groups (NUA §20). This indicator is monitoring section 2.1.6 of the Guidelines for Reporting on the Implementation of the New Urban Agenda, which is on "Promote women's full participation in all fields and all levels of decision-making.

Law number 10 of 2008 on Election requires 30% women to be nominated as members of The House of Representatives (DPR) at national, provincial, and district/city level. Additionally, at least 30% representation for women's votes heard in the House of Representatives or in institutions is needed. This target was only fulfilled for the Regional Representative Council (DPD) members in the 2019 general election. Meanwhile, the proportion of women who are members of the House of Representatives (DPR) and the Regional House of Representatives (DPRD) at provincial and district/city levels is still far from the target figure of 30%.

Nevertheless, the Proportion of women in managerial (private) positions reached 30.63% or above baseline target (24.17%). The following table are Proportion of national and regional legislative seats held by women, 2009, 2014 and 2019 based on VNR 2021:

Table 2. 4 Proportion of National and Regional Legislative Seats Held by Women, 2009, 2014 and 2019

Legislative	Year (%)		
	2009	2014	2019
The House of Representatives (DPR)	17,86	17,32	20,52
The Regional Representative Council (DPD)	26,57	25,76	30,88
The Provincial House of Representatives (DPRD Provinsi)	15,50	15,92	17,53
The District House of Representatives (DPRD Kabupaten/Kota)		14,24	15,30

Source: (National Development Planning Agency/Bappenas, 2021)

The proportion of women in managerial positions in both government, public and private companies continue to increase from 22.32% (2015) to 33.08% (2020). The achievement between provinces varies with the highest proportion in Gorontalo Province (50.43%) and the lowest in Southeast Sulawesi Province (21.54%).

In addition to the government and company levels, women's voices are also involved through Family Welfare Empowerment (PKK) in the Development Planning Consultative Forum (Musrenbang) at the regional level which is a bottom-up planning process. PKK is an organization at the environmental/village/regional level that involves women's participation and is an educational program to empower women. The PKK acts as a representation of women's voices in the Musrenbang forum at the regional level. The efforts to enhance women's role in Musrenbang are by reviewing government policies and the commitment of stakeholders on women's representation in development planning, revitalizing women activists, and increasing women's self-reliance, mental and spiritual endurance, quality, confidence, and courage in using all accesses to improve women's status.

2.2 Planning and Managing Urban Spatial Development

Territorial development policies are enforced through promotion of housing provision, culture, planned urban extensions, as well as territorial / spatial comprehensive and detailed plans. The roles of small and intermediate cities/towns are promoted through rural development policies.

2.2.1 Implement integrated, and balanced territorial development policy

Indonesia committed to promoting participatory age- and gender-responsive approaches at all stages of the urban and territorial policy and planning processes, from conceptualization to design, budgeting, implementation, evaluation and review, rooted in new forms of direct partnership between Governments at all levels and civil society, including through broad-based and well-resourced permanent mechanisms and platforms for cooperation and consultation open to all, using information and communications technologies and accessible data solutions (NUA §92).

Based on Presidential Decree No. 2 of 2015 concerning the National Medium-Term Development Plan (NMDP) 2015-2019, the policy direction for urban area development is focused on sustainable building and competitive cities towards a prosperous urban society based on physical character, economic potential and local culture. The establishment of a new independent and integrated public town around a big city or metropolitan urban area, especially outside Java – Bali is something urgent and must be implemented as part of the middle-low-income community and directed as a buffer for urbanization.

Moreover, the various territorial areas development are prioritized in order to integrate and have balanced development throughout the country. One of the development agendas is implemented through the Strategic Development Region (*Wilayah Pengembangan Strategis* / WPS) in 35 locations. Within the WPS, there are thematic regions such as industrial, tourism, economy, rural priority, and national border. It is further elaborated in Detailed Spatial Planning (RDTR). For National Border Areas, for example, is one of the supports from the government's priority programs to develop Indonesia from the periphery by strengthening regions and villages within the framework of the Unitary State. In total, there are at least 81 locations planned to be the National Border Areas and 11 of them are in the planning stage this year (2021). The development of National Border Areas is a challenge that requires out of the box vision, where the existing area needs careful planning, is a remote area, difficult to reach and some are disaster-prone areas. The RDTR would be the benchmark for future development.

2.2.2 Integrate housing into urban development plans

Indonesia committed to promoting national, subnational and local housing policies that achieve adequate housing for all (NUA §31). The rationale for this indicator is that when people have adequate housing, they are more likely to be healthy, and they are in a better position to have more education and skills training and hence improve their skills. Housing expenditures, in the form of new buildings or renovations, has a multiplier effect throughout the economy. Stimulating industries that supply housing construction supplies, leading to more employment and output.

Based on the 2019 National Development Planning Agency/Bappenas SDGs Goal Report, it can be seen that the percentage of households that had access to decent and affordable housing in 2019 was 56.51%. Based on Statistics Indonesia in 2020, 40.47% of the population in Indonesia are still living in slums, informal settlements or inadequate housing. This is a major increase from 2018 in which it only reached 4.3% points. However, there is only a 10% difference between rural and urban areas; showing that providing affordable housing for everyone – with no one left behind – is still a big task all over the country regardless of urban or rural area. Urban slum households were the highest in 2019 with the percentage reaching 13.86 meanwhile it was only 7.6 and 2.4 in 2017 and 2018. The province with the highest rate of slum households happened to be in DKI Jakarta and East Nusa Tenggara. In DKI Jakarta, a stark difference could be seen as a major increase happened from only 14.4% in 2018 to 42,73% in 2019. The same phenomenon also happened in East Nusa Tenggara as the city only had 16,2% slum households in total but it doubled in 2019 as it reached 31,54%.

Providing affordable housing is still a big challenge for Indonesia. Even so, various stakeholders including the government, regional/cities government, housing developer actors and so many more continue to give major efforts in order to erase slums from Indonesia and give prosperity for all. The government, through the Ministry of Public Works and Housing, continues to implement the program of one million houses. This is aligned with 100-0-100 programs which aim for zero slums throughout the country, which is written in the Mid-Term National Development Plans (National RPJM). This means that hopefully everyone could live in decent housing in the future.

Additionally, there is a plan document called Settlement Area Plan (RKP) that is a guideline in meeting the needs of residential environments in urban and rural areas as well as places for supporting activities that are prepared in the short, medium and long term. Residential area planning is also a form of control in the administration of residential areas. One of the controls of residential area planning is executed by providing zoning boundaries for residential areas and places for supporting activities. Determination of zoning boundaries requires consideration of population projection information, number and types

of houses to indicate the size and distribution of housing/settlement which will then determine the character of the Residential Environment.

The content of the Settlement Area Plan consists of: a. policies and strategies for the development and construction of residential areas; b. urban and rural residential neighborhood plans; c. plan for the integration of infrastructure, facilities, and public utilities; and D. indication of development programs and utilization of residential areas. The preparation of the RKP document is carried out through the preparation stage, survey/data collection, profiling, formulation of policies and strategies, identification and analysis of development concepts, preparation of plans and program indications as well as stipulation of district/city regional head regulations.

2.2.3 Include culture as a priority component of urban planning

This indicator measures the per capita expenditure (public and private) in the preservation, protection and conservation of cultural and/or natural heritage over time. It would allow insight into whether or not countries are strengthening their efforts into safeguarding their cultural and natural heritage. It will help to identify areas that require more attention for policy purposes. In the New Urban Agenda, Indonesia committed to the sustainable leveraging of natural and cultural heritage in cities and human settlements through integrated urban and territorial policies and adequate investments at the national, subnational and local levels, to safeguard and promote cultural infrastructures and sites, museums, local cultures and languages. This includes fostering an enabling environment for businesses and innovation and creation of decent and productive jobs through the promotion of cultural and creative industries, sustainable tourism, performing arts and heritage conservation activities (NUA §38, 45, 60 and 97).

As regulation on preserving cultural heritage, especially in the form of objects, structures, buildings, sites and areas are enacted. More local governments and private associations register their cultural heritage sites[3]. In 2017, 1119 cultural heritage sites were registered in the Ministry of Education and Culture and will increase to 2907 in 2020. At the provincial level there is data on the distribution of cultural heritage in 2019 can be seen in the following figure below.

[3] It is the Law No 11 of 2010 Cultural heritage is a material cultural heritage in the form of objects, structures, buildings, sites and areas

Figure 2. 3 Distribution of Cultural Heritage in Indonesia

Source: Cultural Heritage Potrait of 2020, The Ministry of Education and Culture

The Indonesian government, through the cooperation between Ministry of Public Works and Housing and non-profit organization: Indonesian Heritage Preservation Agency (BPPI), initiated a Heritage City Management and Preservation Program (P3KP). This program is implemented in order to carry out to integrate the mandate of Law no. 11/2010 concerning Cultural Conservation, and Act no. 28/2002 on Buildings, and technically explained in the Minister of Public Works. In 2013, Indonesian Heritage City Preservation Charter was enacted.

During 2012 - 2018, there were 54 Cities/Regencies in 22 Provinces registered to participate in this program. City/Regency commitment is the key in the sustainability of conservation efforts going forward. During this period, several actions have been taken including 66 Heritage City Action Plans prepared by the Regency/City government, RTBL in 30 Regions, Technical Planning in 34 Regions, Implementation and Physical Implementation in 28 Regions. Some examples of management in the program that are considered successful include:

Figure 2. 4 Locations of P3KP Program

Source: Ministry of Public Works and Housing, 2021

- Handling the Dutch Tangsi, Siak Regency, Riau Province. The local government and the community are active and participate in the city's conservation efforts [Illustrative Action of Conservation of Tangsi Mempura Heritage Building will be explained in the last part of this report]. The restoration of the Dutch Tangsi

Building became a model for local governments to be able to replicate the procedures for restoring the BGCB building, with other funding sources.

- Johar Market, Semarang, Central Java. The Semarang City Government is actively conducting research efforts on buildings after a fire occurred in 2015. The Semarang City Government also has TABG and TACB which are active in conservation efforts.

Figure 2. 5 Tangsi and Johar Market

Source: Ministry of Public Works and Housing of the Republic of Indonesia, 2019

2.2.4 Implement planned urban extensions and infill, urban renewal and regeneration of urban areas

High population density makes provision of many public services economically feasible, e.g. mass transit systems. In the New Urban Agenda, Indonesia committed to encouraging spatial development strategies that prioritize urban renewal by planning for the provision of accessible and well-connected infrastructure and services, sustainable population densities and compact design and preventing urban sprawl (NUA §52).

Based on Statistics Indonesia, the population density in Indonesia is increasing every year. From 2015 to 2016, the population increased from 134 to 135 people per sq km. The population density continued to increase until in 2019 it became 140 people per sq km Even though the population density keeps increasing, it seems the increase is not high. The most densely populated province in Indonesia is DKI Jakarta with population density up to 15.900 people / km^2. That is over ten times of overall Indonesia's population

density that only reached 140 people / km^2. Population in Indonesia is centered in Java Island, which consists of DKI Jakarta, West Java, Central Java, East Java, DI Yogyakarta and Banten province. The average density in the island is up to 3.484 people/km^{2,} which is still higher than any other province in Indonesia. Meanwhile, the province with lowest population density is located in West Papua which is only 9 people/km2. By 2035, it is estimated that 66.6% of the population in Indonesia will live in urban areas and only 33.4% live in rural areas.

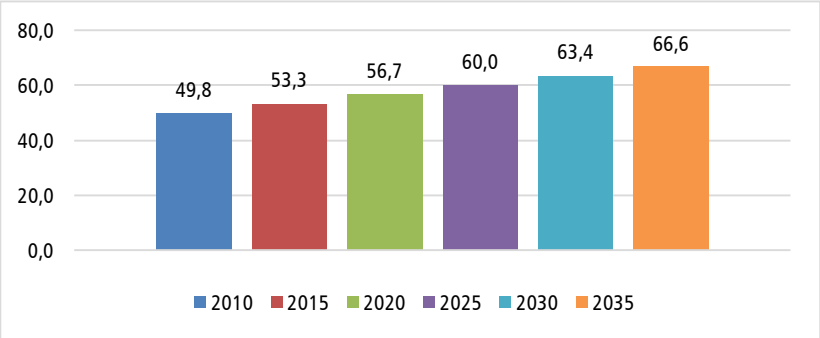


Figure 2. 6 Percentage of the Population of Urban Areas in Indonesia (2010-2035)
Source: Susenas Statistics Indonesia, 2020

For the high-density cities of Indonesia, diversity of land use is commonly found in a city or district spatial plan. Within such a plan, zoning is usually determined based on function, i.e. settlements, industry, business, commercial, and green areas. In each zone, however, several functions are allowed. For settlement function, for example, housing, local commercial facilities, as well as household industry. In this sense, it can be said that the diversity of land use per square kilometer, within a city or urban area, is pretty high on average.

One of Indonesia's challenges in spatial planning is the massive conversion of agricultural land to non-agricultural functions. Statistics Indonesia shows that in June 1998-June 2003, conversion of paddy fields to non-agricultural lands reached around 12.7 thousand ha, while conversion from non-agricultural lands to non-agricultural lands reached nearly 30 thousand ha. If this is allowed, there will be a decline in food production, especially rice. As a result, local food production capabilities are increasingly unable to meet a fairly high food demand pressure.

In response to this condition, the government issued Law No. 41/2009 concerning Sustainable Food Agricultural Land (LP2B). This law is expected to restrain the rate of conversion of rice fields, especially rice fields with technical irrigation, to support national food security. In addition, the government will have perpetual agricultural land in providing food because, in the law, it is explained that lands that are included in the category of LP2B cannot be converted to other uses.

Based on the evaluation carried out by National Development Planning Agency/Bappenas (2015), the implementation of LP2B can be said to have not been running as it was supposed to. Based on evaluations in several locations, the planning and determination of LP2B in the RTRW were carried out unilaterally by the government, not based on opinions or suggestions from the community.

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

The New Urban Agenda calls for planning and managing spatial urban development. There must be enough urban planners in a country to prepare and implement urban plans. In this regard, the New Urban Agenda calls for improved capacity for urban

planning and design and the provision of training for urban planners at all levels of government (NUA §102).

According to Planners Association or *Ikatan Ahli Perencanaan (IAP)* data in 2016, with 31 provincial boards and 1,200 members, there were merely 3,100 planners out of 246,864,191 Indonesian population. These figures equal 0.0013% or 130 planners per 100,000 persons. Such a figure is derived from the educational background in which 52 planning departments of Indonesian universities have graduated planners and in which the graduates work as professional planners. While IAP data is based on educational background and profession, there is another measurement based on occupation titles being held by public servants. This latter measurement resulted in 1.050 planners which is still considered as falling far behind the need of 42,000 planners. Meanwhile, annually there is a huge need of 1.500 to 2000 planners.

As an effort to overcome the problem of the lack of human resources for urban planners in Indonesia, IAP has a role in the certification of urban planners. Established in 1971, IAP through central and regional IAPs spread across 24 provinces, actively contributes to various policy formulations, advocacy programs and increasing public awareness of urban development issues. IAP in collaboration with the Association of Indonesian Planning Schools (ASPI) encourages the availability of reliable planners, especially in cities outside Java, by increasing the number of students, quality of education and planning practices.

In addition, the Indonesian Architects Association (IAI) and the Indonesian Landscape Architecture Association (IALI) also play a role in strengthening the planning profession in the urban sector and improving the quality of urban governance. IAI encourages the use of Law no. 6 of 2017 concerning Architects. This law is important in relation to ensuring the quality of professional architect services in cities in Indonesia. In the future, the condition of the city will be more complex and more and more parties will be involved in the construction and development of urban areas. Ultimately, all stakeholders are expected to be involved in urban governance, and encourage all stages of the city development process to be more inclusive. (State of Indonesian Cities, 2019)

Urban planner is a multidisciplinary profession. The Indonesian Urban Design Alumni Association (IARKI) also plays a role in urban development. Relatively younger than both associations mentioned above, IARKI members are usually architects who studied urban design which in most schools are a specialty major resulting from a combination of Architecture and Urban Planning.

There is also a career path for urban planners and designers in Indonesian bureaucracy through functional officers. Planner Functional Officer (coordinated by the Ministry of National Development Planning) for those who engaged in program and budgeting planning activities, and spatial planner (coordinated by the MoASP/ NLA) for those involved in spatial planning activities. Urban planners and designers must continue to improve their technical capabilities to develop their careers further through these functional officer paths. The Indonesian government also provides regular training and capacity building for those who choose a functional officer career path.

2.2.6 Strengthen the role of small and intermediate cities and towns

The small and intermediate cities of Indonesia keep growing. In 2020, 67 municipalities can be categorized as a small or intermediate city by the standards of the Ministry of Public Works and Housing (cities with populations of less than 500,000). Some of these municipalities are located within close proximity to the bigger cities, making them part of the larger urban systems that are designated as metropolitan areas. On the other hand, some municipalities are located outside of the reach of the bigger cities, making them

stand on their own as a small or medium city. In fact, many of these municipalities experienced relatively higher growth in their populations. Some of the municipalities in Indonesia with the highest population growth rates between 2010 and 2020 are small and intermediate cities (Jayapura, Sorong, Palangkaraya, Kupang, Tidore, Tual, Subulussalam, Sabang), as well as some of the big cities such as Bandar Lampung and Batam. The rest of the big metropolitan cities experienced relatively slower growth during the same period.

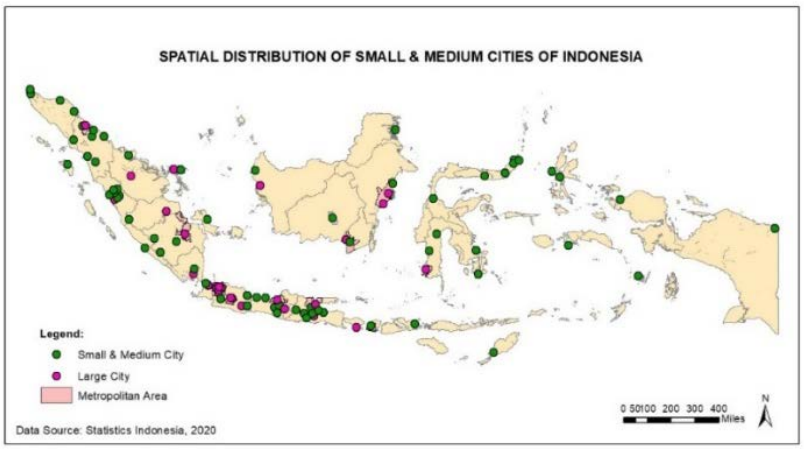


Figure 2. 7 State Distribution of Small & Medium Cities of Indonesia

As stated in Indonesia's Medium-Term National Development Plan of 2020-2024, Indonesia is committed to promote balanced development and reduce regional disparity by distributing growth and service centers to less developed regions. Therefore, small and intermediate cities play a crucial role in connecting big cities to more than 74.000 villages in Indonesia, as well as promoting supportive rural-urban development.

National Priority Rural Areas (KPPN/Kawasan Perdesaan Prioritas Nasional) and 52 transmigration areas (previously known as KTM/Kota Terpadu Mandiri) had developed by the end of 2019 with the aim of creating new centers of economic growth, enhancing connectivity with larger cities, and promoting connectivity to neighboring countries (Kemendesa PDTT, 2020). Therefore, in 2018 the Regional Infrastructure Development Agency (BPIW) prepared small town master plan for border areas in 3 (three) locations, namely the Wini Border Area in North Central Timor Regency, Motamasin Border Area inMalacca Regency, and the Skouw Border Area of Jayapura City.

The establishment of the Ministry of Villages and the enactment of Village Law in 2014 has strengthened the role of village governments to implement village development programs, as well as empower the community. The goals of village development are including realizing community independence, creating sustainable and independent villages that have social, economic, and ecological resilience, and strengthening the linkage of rural-urban economic activities.

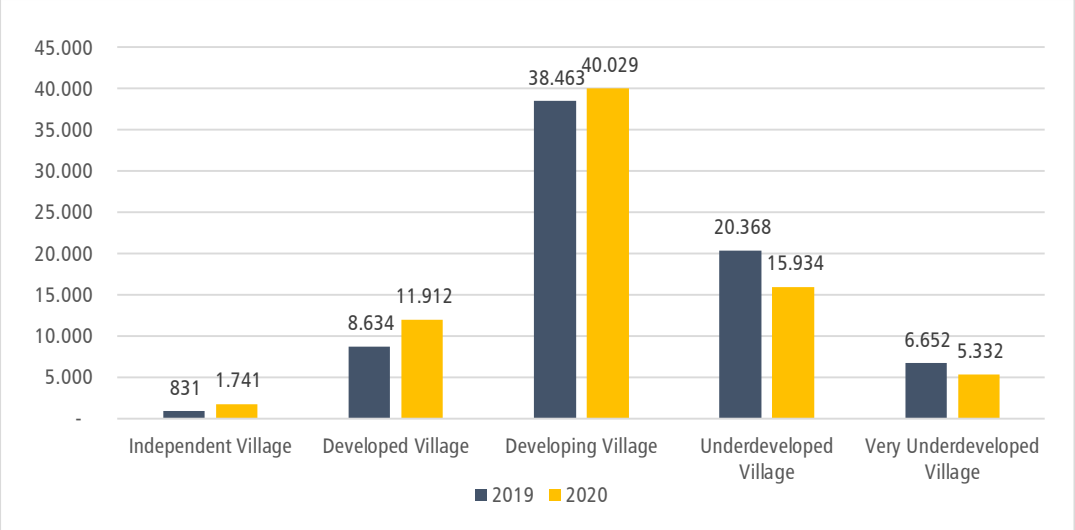


Figure 2. 8 Progress on the 'Building Village Index' 2019-2020

Source: Ministry of Villages, Development of Disadvantaged Regions, and Transmigration, 2020

To measure the level of village development, the Ministry of Villages, Development of Disadvantaged Region, and Transmigration has created the 'Building Village Index' which is measured by three dimensions: social, economic, and ecological. Within a period of 6 years, in 2020, 71.6 percent of the total 74,948 villages has reached the status of developing, developed, and independent villages. This number increased by 12% from 2019, indicating a positive trend in rural development.

Indonesia is committed to strengthening the role of small and intermediate cities and towns. In the President's Nawacita, or the President's nine development priorities for the next five years, point 3 mandates that national development be prioritized from the periphery by strengthening regions and villages within the framework of the Unitary State. The roles of small and intermediate cities/towns are promoted through rural development policies. The goals of developing rural areas include realizing community independence, creating sustainable and independent villages that have social, economic and ecological resilience, and strengthening the linkage of rural-urban economic activities. The commitment is implemented through the establishment of the Ministry of Villages, Development of Disadvantaged Regions, and Transmigration in 2014 whose duties and functions focus on improving the quality of rural and underdeveloped areas with various programs and policies, one of the policies is Village Development Planning.

Village development planning aims to produce guidelines for the preparation of the Middle-Term Village Development Plan (RPJM) & RJP and to strengthen rights and authorities and optimize the resources of wealth owned by each village so that in the long term the village has plans and resources that can It is used to improve the quality of life of its people, both socially and economically.

In addition, the Ministry of Villages, Development of Disadvantaged Regions, and Transmigration are also running the SDGs-based Village Data Update program which aims to support the implementation of the Village SDGs. The Village SDGs is an integrated effort to realize a village without poverty and hunger, an economic village that grows evenly, a village that cares about health, a village that cares about the environment, a village that cares about education, a women-friendly village, a networked village, and a culturally responsive village to accelerate the achievement of the Sustainable Development Goals. The Village SDGs are a sustainable development role that will be included in the priority program using the 2021 Village Fund.

Figure 2. 9 10 Village SDGs Program

Source: Ministry of Villages, Development of Disadvantaged Regions, and Transmigration, 2020

Various programs are implemented for SDGs realization in order to bring equality across Indonesia, especially in rural and underdeveloped areas. One of the programmes is New Urban Areas Development Program or also called Independent Integrated Cities (KTM) for 20 new urban areas. The program has become a target for national development in the transmigration sector in 2015-2019, aiming to develop these small cities to be the new growth center of economic development.

In addition to the development of new growth centers, the 2015-2019 National RPJM also mandates the development of economic centers in border areas. In 2018 the Regional Infrastructure Development Agency (BPWI) is preparing a small town master plan for border areas in 3 (three) locations, namely the Wini Border Area in Kab. North Central Timor, Motamasin Border Area, Kab. Malacca, and the Skouw Border Area of Jayapura City. The government is committed to developing transmigration areas with the KTM formation program, which has been incepted in 2007 and a decade later already has built over 48 KTMs, spread across 23 provinces and 45 regencies as the engine of the new economy.

2.2.7 Implement sustainable multimodal public transport systems including non-motorized options

Statistics Indonesia data on the 2014 Environmental Care Behavior Indicator shows that for school or work activities, people mostly use motorbikes and without vehicles. A total of 48.14% of people do not use a vehicle to work and 44.99% do not use a vehicle to go to school. A total of 44.18% of people use motorbikes to go to school, and 37.02% to work. The rest use public transportation, bicycles, cars, trains, and rickshaws to work and go to school.

Indonesia has started to implement the concept of Transit Oriented Development (TOD) [further details will be explained in illustrative action] with the enactment of Minister Regulation of Agrarian and Spatial Planning No 16 Year 2016 on Development Guidance on Transit Oriented Area. In DKI Jakarta Province, TOD is planned at 12 stations within the corridor of Lebak Bulus–Dukuh Atas with varied classifications ranging from maximum TOD to minimum TOD based on capacity parameter. Dukuh Atas which will integrate 7 different mass transit corridors: BRT Transjakarta, MRT Jakarta, LRT Jabodetabek, LRT Jakarta, airport trains, commuter trains, and regular city buses. The capital city of Jakarta has implemented mass transportation, namely Mass Rapid Transit (MRT), Light Rapid Transit (LRT) and Bus Rapid Transit (BRT). In 2019, the average daily ridership for MRT Jakarta is 89,645 passengers per day, 4,500 passengers per day for LRT in 2020, and 1 million passengers per day for BRT in 2020.

2.3 Means of implementation

2.3.1 Mobilization of Financial Resources

2.3.1.1 Develop financing frameworks for implementing the NUA at all levels of government

UN-HABITAT recommends that the preparation of the Report on the Implementation of the New Urban Agenda should be led by the ministry dealing with urbanization in a country. National Habitat Committees (NHC) and National Urban Forums (NUF), where they exist, should either play a major role or lead the preparation of the Report. The indicator seeks to determine whether there is an office or committee or task force for implementing the New Urban Agenda. It is also important that the New Urban Agenda has been integrated into the national urbanization and infrastructure plans.

The Government Regulation on Implementing Achievement of SDGs states that the implementation of SDG is incorporated in the National Medium Term Development Plan 2020-2024. The President's Regulation no. 18 / 2020 on National Medium Term Development Plan 2020-2024, lists the major/strategic projects and financial resources to support these projects. Some of the projects relevant to the SDGs and source of finance include the following:

Table 2. 5 Source of Finance Projects

Major project	Financial source
Metropolitan area development (support sustainable city): Palembang, Banjarmasin, Makassar, Denpasar Highlights: public transportation, water supply, waste management,	State budget, local budget and private sector
New Town development: Maja, Tanjung Selor, Sofifi and Sorong Highlights: water supply, public transportation,	State, state owned enterprises (SOE) and private sector
Urban public transport system in 6 Metropolitan areas: Jakarta, Surabaya, Bandung, Medan, Semarang, dan Makassar	State budget, local budget, SOE
Access to safe and adequate sanitation (90% households)	State budget, local budget, private sector and community
Piped clean water to households (10 million)	State, local budget, public private partnership
Urban housing (apartment) - 1 million housing program	State, local budget, SOE, private sector and community
Gas line infrastructure (4 million) / 2018	State, SOE, public private partnership

Source: The President's Regulation no. 18 / 2020 on National Medium Term Development Plan 2020-2024

A general financing framework has been issued to support public-private partnerships (*kerjasama pemerintah dan badan usaha* or KPBU) in infrastructure development through the Presidents Regulation no. 56 year 2018 on KPBU which are further elaborated in ministerial regulations at the Minstry of Finance, respective Ministries

and local governments. The PPP projects fill the gap of funding for infrastructure development. Within the infrastructure cluster of public works and housing (roads, water and sanitation, housing), the funding gap for 2020-2024 is IDR1.4 Triliun or USD 102 million – about 70% of the total budget.

In 2009, GOI established PT Sarana Multi Infrastruktur (SMI), one of the Special Mission Vehicles (SMV) under the Ministry of Finance which is engaged in financing and preparing infrastructure projects. There are 8 sectors that can be financed by PT SMI, namely roads and bridges, transportation, oil and gas, telecommunications, waste management, electricity, irrigation, and drinking water supply. Since 2019, these sectors have been expanded 2019 to include the financing of water resources and irrigation infrastructure, system infrastructure waste management, informatics infrastructure, renewable energy infrastructure, energy conservation infrastructure, sports and arts facilities and infrastructure, and public housing infrastructure.

Through the expansion sector that can be financed, PT SMI can increasingly provide innovative solutions for Indonesia's development that contribute to poverty alleviation, availability of access to cleanliness or sanitation, health, education and technology, and the achievement of the Sustainable Development Goals (SDGs) in Indonesia.

2.3.1.2 Mobilize endogenous (internal) sources of finance and expand the revenue base of subnational and local governments

Local budget revenue realization in 2018 comes from the local owned resource revenue, balance fund and other sources. The balance fund is funds sourced from the State Budget (APBN) revenues allocated to regions (autonomous) to fund regional needs in the context of implementing Decentralization. The amount of the Balancing Fund is determined every fiscal year in the State Budget (APBN). The amount of the balance fund in 2018 was IDR663.11 trillion, including revenue sharing fund (13.99%), general allocation fund (60.77%) and special allocation fund (25.34%).

The General Allocation Fund (DAU) is part of the Balance Fund. General allocation fund is funds sourced from The State Budget revenues which are allocated with the aim of equalizing financial capacity among regions or autonomous to fund regional needs in the context of implementing decentralization. The amount of the General Allocation Fund for local budget realization in 2018 was IDR 402.32 trillion. The table below is the Percentage of Balance Fund in Local Budget Realization from The MoF.

Table 2. 6 Percentage of Balance Fund in Local Budget Realization

Balance Fund	Percentage	Amount (Trillion Rupiah)
Revenue Sharing Fund (DBH)	13.99%	92.67
General Allocation Fund (DAU)	60.67%	402.32
Special Allocation Fund (DAK)	25.34%	168.03

Source: Ministry of Finance

Based on Statistics Indonesia, it could be seen that every year, both the sub-government revenue and expenditure increases. The major increases happened in 2011 to 2012, where it started from IDR140 trillion and jumped to IDR186 trillion; successfully increased around IDR46 trillion in a year alone. In a whole decade, the sub-government's revenue kept increasing until it reached IDR279 trillion in 2016 from just IDR69 trillion in 2006. The increasing number of the revenue is the total income from tax, non-tax and grant.

Moving forward, aside from the sub-government's revenue, the sub-government's expenditure also increases. The expenditure of the sub-government cannot be separated

from the massive building of infrastructure throughout the country in order to provide convenience in the transportation of goods. Meanwhile there's not much difference in terms of revenue and expenditure. The debt and loans have yet to reach a quarter of the government's revenue, which is the highest debt only reached IDR34 trillion in 2015 while loan only reached IDR 42 trillion in 2014.

It can be seen that the Proportion of the Domestic Budget Funded by Domestic Tax from 2019 to 2020 has decreased from 65.18% to 62.60% (National Development Planning Agency/Bappenas, 2021). The following is the proportion of the domestic budget funded by domestic taxes from 2016 to 2020.

Table 2. 7 Proportion of Domestic Budget Financed by Domestic Taxes (%)

Indicator	2016	2017	2018	2019	2020
Proportion of domestic budget financed by domestic taxes (%)*	67.02	64.98	67.01	65.18	62.60
Total Spending**	1864.3	2007.4	2213.1	2309.3	2739.1
+ Central Government**	710.3	742.0	757.8	813.0	763.9
+ Transfer to Sub-national Governments**	1154.0	1265.4	1455.3	1496.3	1975.2
Domestic Revenue**	1546.9	1645.7	1928.1	1955.1	1698.6
+ Tax**	1285.0	1343.5	1518.8	1546.1	1404.5
+ Non-Tax**	262.0	311.2	409.3	409.0	294.1

Source: Bappenas, 2021

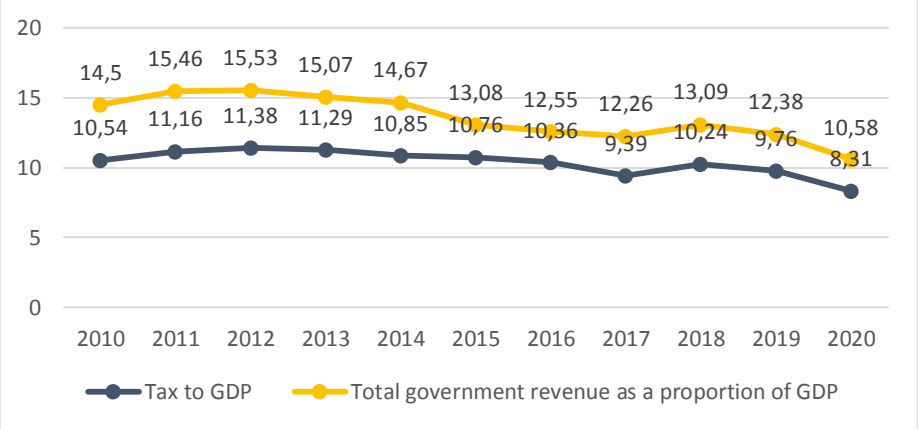


Figure 2. 10 Government Revenue and Tax

Source: Bappenas, 2021

The tax ratio tends to weaken with the lowest level found in the last decade: only 8.31%. This continues the declining trend that has occurred since a decade ago, albeit the lower-bound taxable income had been lifted-up and a tax amnesty had been once introduced in 2017-2018 through Law 11/2016. From this depiction it can be therefore evidently be seen that the capacity of the government to generate revenue through the tax system in 2020 shrank significantly. The lower capacity of the government to generate revenue directly affects the proportion of domestic spending financed by domestic tax to decrease. This worsened the situation in 2018-2019 when the proportion fell from 67% to 65%, then became 62.6% in 2020.

Referring to Law no. 33 of 2004 concerning Financial Balance between the Central Government and Regional Governments, the source of revenue for urban development which is conventional in nature is still sourced from Regional Original Income (PAD), namely the results of regional taxes and levies, balancing funds consisting of general allocation funds (DAU), and special allocations (DAK) and other official regional revenues. Tax

revenue in an area is the variable that has the most significant effect on increasing PAD (Roslina, 2014), which is the foundation and important factor in ensuring the sustainability of development in the area. Regulation of Ministry of Home Affairs No. 31 of 2016 concerning Guidelines for the Preparation of the 2017 Local government budget (APDB), states that nationally, regional taxes and retributions experienced an increasing trend from 2015 to 2018, with an average of IDR 18 trillion or 20 percent. The contribution of increasing district/city taxes and retributions is 13 trillion rupiah or 20 percent. Meanwhile, on the national average, the proportion of regional taxes and retributions from districts/municipalities to Regional Original Income (PAD) is 73.3%.

Based on this situation, currently several district/city governments are starting to explore and manage local tax revenues as a potential source of development financing to be developed. Cities on the island of Java in particular take advantage of the large population and the transportation sector as potential sources of tax revenue. This is indicated by several big cities that have a very significant percentage of Motor Vehicle Tax (PKB) receipts. In addition to the PKB, other types of transportation taxes, such as the Transfer Fee for Motor Vehicles (BBNKB) and the Motor Vehicle Fuel Tax (PBB-KB) are also significant. For example, the DKI Jakarta Province, based on APBD budget data, 2018 PKB revenues reached IDR 5.69 trillion, BBNKB 3.69 trillion rupiah and PBB-KB 798.64 billion rupiah. If we add up, the transportation sector tax revenue reaches 10.2 trillion rupiah.

Urban funding can also take advantage from CSR commitments. Corporate Social Responsibility (CSR) has long been implemented in Indonesia and is regulated in laws and regulations as Social and Environmental Responsibility (TJSL) Law No. 40 of 2007 concerning Companies states that CSR is the company's commitment to participate in sustainable economic development in order to improve the quality of life and the environment that is beneficial to the private sector, local community, and society.

2.3.1.3 Formulate sound systems of financial transfers from national to subnational and local governments based on needs, priorities and functions

In the New Urban Agenda (NUA), Indonesia committed to promoting sound and transparent systems for financial transfers from national governments to subnational and local governments (NUA §135).

The Model Details of Allocation of Transfers to Regions and Village Funds (TKDD) is stated in the State Budget (APBN) every year. The following are the details of the Allocation of Transfers to Regions and Village Funds (TKDD) to local governments from the central government.

Table 2. 8 Transfer Allocation Details to Regions and Village Funds

Transfer Allocation Details to Regions and Village Funds	Amount (IDRTrillion)			
	2018	2019	2020	2021
Revenue Sharing Fund (DBH)	89,2	106,35	117,58	101,96
General Allocation Fund (DAU)	401,5	417,87	427,09	390,29
Physical Special Allocation Fund (DAK Fisik)	62,4	69,33	72,25	65,25
Non-physical Special Allocation Fund (DAK Non Fisik)	123,5	131,04	130,28	131,18
Special Autonomy Fund	21,1	22,18	22,75	21,30
Local Incentive Fund (DID)	8,5	10,00	15,00	13,50
Village Fund	60,0	70,00	72,00	72,00
Total	766,20	826,77	856,95	795,48

Source: Ministry of Finance

The amount of Allocation of Transfers to Regions and Village Funds had increased from 2018 to 2020. In 2020 the total Allocation of Transfers to Regions and Village Funds is IDR856.95 Trillion. But it has been adjusted in 2021 to IDR795.48 trillion. Based on the 2021 Economic, Financial and Fiscal Review of the strategy of Indonesia Government in the pandemic period in 2021-2022 about financial recovery and reform policy by strengthening recovery leverage and reforming foundation strengthening. One of the accelerations of recovery and reform is by handling the pandemic and vaccination program, accelerating recovery through sustainability, and transformation through fiscal policy reform.

2.3.1.4 Mobilize and establish financial intermediaries (multilateral institutions, regional development banks, subnational and local development funds; pooled financing mechanisms etc.) for urban financing

Indonesia committed to: supporting effective, innovative and sustainable financing frameworks and instruments enabling strengthened municipal finance and local fiscal systems; promote risk mitigation mechanisms such as the Multilateral Investment Guarantee Agency, while managing currency risk; Support access to different multilateral funds to secure resources for climate change adaptation and mitigation plans, policies, programs, and actions; and encourage the use of official development assistance, which promotes additional resource mobilization from all available sources, public and private (NUA §15, §139, §143, §145).

Indonesia has a funding shortage of more than US$2.5 trillion annually to achieve the SDGs, a funding gap that far exceeds government budgets and that can only be plugged by private funds and other resources. Blended finance is emerging as one of the best ways to attract private capital. It uses official development or philanthropic finance to remove the barriers to private finance by reducing the risk of SDG investment. By de-risking these investments, blended finance has the potential to capture more than $1 trillion in additional annual investment.

The importance of blended finance has also been acknowledged at the 3rd International Conference on Financing for Development known as the Addis Ababa Action Agenda in 2015. More recently, at the Group of 20 leaders' meeting in Osaka in June, Indonesia was firm to make blended finance recognized as one of the innovative financing mechanisms for development. As a G20 economy and fast-growing emerging country, Indonesia has been demonstrating strong leadership for the SDGs, including through the development of various innovative financing mechanism.

Green sukuk or green Islamic bonds are among the government's instruments for financing climate change-related activities and achieving the SDGs. The first green sukuk, issued in March 2018, reached $1.25 billion, and the latest, in February 2019, attracted $750 million.

In recent years, Indonesia has embarked on concrete action to advance its innovative financing mechanisms. It launched its first blended financing platform — SDGs Indonesia One — to support large-scale sustainable infrastructure projects through PT Sarana Multi Infrastruktur. The platform has raised an impressive $2.46 billion in commitments to date and is targeting to reach $4 billion.

The government has also reached a milestone by utilizing zakat funds in partnership with the UN Development Program, the National Alms Agency (Baznas) and Bank Jambi to provide much-needed access to electricity for over 4,000 villagers through micro-hydropower plants. Indonesia believes that blended finance is a key pathway to drive inclusive and sustainable growth, deliver global climate action under the Paris Agreement and achieve the SDGs.

Globally, the government took on a leadership role by hosting Tri Hita Karana (THK) Forum on Sustainable Development for Blended Finance and Innovation during the International Monetary Fund-World Bank Annual Meetings in Bali last October. The Forum launched more than 30 high-impact projects, investments and initiatives and mobilized up to $10 billion for priority SDG sectors, including green infrastructure, sustainable land use, women and innovation.

Based on the 2021 Economic, Financial and Fiscal Review from the Ministry of Finance, the total realization of grants in 2020 is IDR 12,290 trillion. In addition, the forms of financial cooperation carried out by Indonesia with multilateral institutions, regional development banks, subnational and local development funds, include:

Table 2. 9 Form of Indonesia Multilateral Cooperation

Multilateral Institutions	Year	Total Nominal	Form of Multilateral Cooperation
ADB - Asian Development Bank	2018	USD 37,6 Billion	Loans, public sector management grants and energy
AIIB - Asian Infrastructure Investment Bank	2018	USD 7,5 Billion	Financing loans for 35 infrastructure projects
IDB Group - Islamic Development Bank	2018	USD 5,1 Billion	Financing loans, consultation on the establishment of Islamic banks, capacity building for human resources, seminars, conferences
ICD- The Islamic Corporation for the Development of the Private Sector	2018	USD 170,8 Million	Financing to the private sector in the form of line of financing to Islamic financial institutions
ITFC - International Islamic Trade Finance Corporation	2011-2014 2016-2019	USD 666 Million USD 1,8 Billion	Finance for agriculture, manufacturing, garment, CPO, sugar, coffee, cotton and coal sectors
ICIEC - The Islamic Corporation for the Insurance of Investment and Export Credit	2011-2019	USD 987 Million	Support for credit insurance guarantees for export activities and import facilitation of capital goods and strategic commodities to help increase export and import activities; and increasing foreign direct investment (FDI) in Indonesia through political risk insurance support.
IBRD - International Bank for Reconstruction and Development	1974-2019	USD 52,85 Billion	Financing 368 projects in Indonesia. In 2019 there are 29 active projects worth USD 6.66 Billion and investment in 2020 worth USD 1.52 Billion through current IBRD activities in Indonesia in addition to Investment Project Financing (IPF), Development Policy Loan (DPL), Program for Result (P4R), also mostly in the form of Trust Funds or grants (TF).

Multilateral Institutions	Year	Total Nominal	Form of Multilateral Cooperation
IDA- International Development Association - World Bank	1970-2019	USD 2,69 Billion	Loans and grants and support for 45 projects
IFC- World Bank Group	1986-2019	USD 3,05 Billion USD 37,24 Million	Support through 75 IFC investment project and 22 ICF Advisory projects
MIGA - World Bank Group	1989-2019	USD 1,86 Billion	Project support for the telecommunications sector and energy infrastructure (power generation projects).
IFAD- International Fund for Agricultural Development	1981-2019	USD 550,7 Million	Financing, grants, and technical assistance in the agricultural sector
AIF - ASEAN Infrastructure Fund	2019	USD 497 Million	Financial support for infrastructure projects in the energy, sanitation and clean water sectors
CGIF - Credit Guarantee and Investment Facility	Since 2018	USD 273 Million	Support the local currency bond market for Indonesian issuers in the form of guarantees in the issuance of bonds
CFC - Common Fund for Commodities	-	USD 17 Million	Financing investment support and grants to improve agriculture, production, processing and commodity trading
IRCo - International Rubber Consortium Limited	-	-	Maintain a balance between demand and supply of natural rubber; share knowledge and expertise in improving the quality of rubber harvest

Source: Book of Indonesia Multilateral Cooperation Ministry of Finance, 2019

2.3.2 Capacity Development

2.3.2.1 Expand opportunities for city-to-city cooperation and fostering exchanges of urban solutions and mutual learning

Indonesia committed to expand opportunities for city-to-city cooperation and North-South, South-South and triangular regional and international cooperation in order to contribute to sustainable urban development, developing capacities and fostering exchanges of urban solutions and mutual learning at all levels and by all relevant actors; and equip public water and sanitation utilities with the capacity to implement sustainable water management systems (NUA §146, §120).

Indonesia's local governments have participated in major regional and international city networks and platforms such as about 49 cities involved in SisterCities International, and 29 local governments in UCLG-ASPAC , by which Padang, Bandar Lampung, Surakarta, Surabaya, Banjarmasin, and Gorontalo are among cities that have actively participated. Additionally, Bogor and Bekasi are among 7 local governments involved in the World Association of the Major Metropolises (Metropolis). Jakarta and Semarang involved in Resilient Cities Network. These are parts of the networks that collaborate through multi-city association. However, city to city cooperation through the sister city program has been pursued by many cities for a long time. It relies on the strength of their Cooperation Division within the local governments, the more internationally oriented the division, the sister city program can be more materialized. Within the context of SDGs, in SDGs 17 there is a Para diplomacy aspect that promotes diplomacy between local

governments across countries. APEKSI and UCLG ASPAC champions Para diplomacy for local governments in Indonesia.

2.3.2.2 Promote the capacity development as a multifaceted approach to formulate, implement, manage, monitor and evaluate urban development policies

Indonesia acknowledged the importance of local governments in the follow up to and review of the New Urban Agenda (NUA §163). Having adequately trained staff in planning and implementing urban development policies are expected to increase capacity to engage in urban development policies. Capacity development in urban development policies especially at the government levels have increased. National Development Planning Agency/Bappenas is involved in regular training of civil servants for positions as planners especially to deal with urban development and planning. However, as of now there is no statistical data on the percentage of cities and subnational governments with staff trained in formulation, and implementation of urban development policies.

2.3.2.3 Strengthen the capacity of all levels of government to work with vulnerable groups to participate effectively in decision-making about urban and territorial development

Within the formal development planning system in Indonesia, there is so called musrenbang or Community Discussion held at the village, continually to the municipalities/regencies, provincial and national levels. This is to absorb aspirations for development for the year to come as it is held annually. Musrenbang allows for participation of various community members, including vulnerable groups. For vulnerable groups, there are also local branches of the Ministry of Women Empowerment and Child protection and the ministry of Social Works, that champion programs and activities dedicated to vulnerable groups. Their priorities are integrated into the local development plans. In terms of urban and territorial development, the forum of spatial management (Forum Penataan Ruang/FPR) is encouraged to be established at the local level. The forum includes local community leaders who have a wealth of knowledge in particular territories. They are the ones that voice concerns from vulnerable groups including those whose livelihoods may be threatened because particular development proposals took place. As of now, statistics on the proportion of cities with a direct participation structure of civil society engagement in urban planning and management, which are regular and democratic, are not yet maintained.

2.3.2.4 Support local government associations as promoters and providers of capacity development

Indonesia committed to strengthening the capacity of national, subnational and local governments, including local government associations, in shaping organizational and institutional governance processes, enabling them to participate effectively in decision-making about urban and territorial development; support local government associations as promoters and providers of capacity development, recognizing and strengthening both their involvement in national consultations on urban policies and development priorities and their cooperation with subnational and local governments and their existing networks to deliver on capacity-development programmes (NUA §148; §149). The roles of local government associations have been important to represent local governments interests, coordinate with the central government to draw attention and resources to the associations' priority areas. In Indonesia there are several local government associations, such as Association of the provincial government of Indonesia (APPSI), the Association of Regencies of Indonesia (APKASI) and Association of Regencies' Assemblies in Indonesia (ADKASI). Associations

that are involved in urban issues are Association of Indonesian Municipalities (AIM / APEKSI) and Association of City Council in Indonesia (ADEKSI). Increasingly, they participate in the national political dialogue, and the definition of public policies, as well as assisting members to carry out their legal competences and being a forum where municipalities can exchange best practices and learn from each other.

It is important to have a substantial budget in order to advocate with adequate substantive support for the associations' positions. These associations operate using financial support from stipends from its members. They also execute programs sponsored by donor agencies and international institutions. The size of the budget of local government associations depends on the active participation of its members. Members draw its membership stipends from local public budgets. The amount of stipends which each member paid to the AIM, according to their 2020 annual report, is ranging from 25 to 35 million IDR subject to their city classification. In 2020 with 98 members, it makes the total of 2.24 trillion IDR. In addition to the membership stipends, AIM also receives additional funds from donors, programs, as well as other kinds of sources reaching to a total of 2.12 trillion IDR. These funds allow AIM to operate with a total budget of 4.36 trillion IDR in 2020.

2.3.2.5 Promote capacity development programmes on the use of legal land-based revenue and financing tools

Indonesia committed to promote capacity-development programmes for policymakers and local public officials on the use of legal land-based revenue and financing tools, focusing on the legal and economic foundations of value capture and distribution of land value increments (NUA §152). The use of legal land- based revenue and financial tools are limited to the application of property taxes and the function of properties for commercial and industrial purposes. It still follows the standard tools used in calculating local accounting. There is still limited capacity to use tools such as development rights or transfer of development rights, application for land development, and land value capture. Even in the private sector the exploration of financial tools cannot be left without the involvement of the government. Understanding and recognition of the needs to explore such financial tools may rest on the willingness of the Ministry of Finance at the national level. As this ministry is responsible for how far local governments can participate in financial sources related to land development. Thus, the number of people who have been trained in the use of land-based revenue and financing tools have not been calculated.

2.3.2.6 Promote capacity development programmes of subnational and local governments in financial planning and management

Indonesia committed to promoting capacity-development programmes to help subnational and local governments in financial planning and management (NUA §151). Municipal finance consists of the revenue and expenditure of local government especially as a part of national government transfer, and local government revenues. Municipal finance in Indonesia limited deal with non-government financial sources especially that contribute towards program implementation.

A prerequisite of efficient local government financial administration is having qualified staff in the areas of financial planning and management as well as accounting. The indicator measures local government staff trained up to bachelor's degree level or certified public accountant (or equivalent) as a percentage of total local government staff that have not been acquired. For the purpose of property tax and income tax, the national government involved in providing public accountants needed. In some cases, independent public accountants are employed to add in the time needed.

Annually, local governments have to submit its financial statement to the Financial Audit Board (BPK) to ensure the statements follow financial auditing standards. Annually. BPK publishes their auditing opinion to the statements as qualified or not qualified. BPK auditing opinion for local financial statements has been a benchmark to show that local governments have reported their financial statements in excellent manners.

2.3.3 Information Technology and Innovation

The current Covid-19 pandemic and the need to implement public health protocols, many government offices have accelerated efforts to introduce electronic based information and digitalization on various public services, including identity card, land registration, aggregate data provision and use of virtual reality.

2.3.3.1 Development of user-friendly, participatory data and digital platforms through e-governance and citizen-centric digital governance tools

Indonesia committed to foster the development, promotion and enhancement of open, user-friendly and participatory data platforms using technological and social tools available to transfer and share knowledge among national, subnational and local governments and relevant stakeholders (NUA 160).

E-governance can improve the speed of delivery and transparency of government services, as it is beneficial not only to city governments but also urban residents, businesses, city employees and non-government organizations. Innovation of the use of e-governments have been initiated not only by the national government, but also by local governments. In reducing the time to process application by citizens, government led permits such as permit Birth Certificate, ID cards, drivers licenses, business permit application, even property tax payments have been introduced as electronic application. For the public at large, requests for public information to the government, for example in DKI Jakarta, has been introduced as an online mobile app. The public also can report or provide information on the state of public services such as roads with potholes, assistance to homeless people, potentials for floods, so that the government can respond.

The introduction of the concept of smart cities in many cities and regions in Indonesia have evolved from previously toward monitoring urban services to providing services. Smart cities entail the application of advanced technology to develop e-governance or smart governance that fit into the needs of its citizens. Smart governance as one of the important indicators of a smart city requires several important aspects of government. The three main aspects of smart governance are the implementation of information and communication technology in government, transparency and openness of data, and formulating policies according to the needs of citizens. Cities in Indonesia that have implemented smart governance include Jakarta, Surabaya, Bojonegoro, Binjai, Bandung, Semarang, Makassar and Yogyakarta.

The Municipality of Surabaya, for example, since 2014 has implemented the Governmental Resource Management Information System (GRMS) as the integrated regional financial management. It is applied in various bureaucratic activities starting from the upstream to downstream level (in the context of expenditure), including budget preparation (e-Budgeting), project planning (e-Project Planning), electronic procurement (e-Procurement), anf contact administration and job disbursement (e-Delivery). This system guides the government resource management system in different city development programs to a more inclusive process as it involves more stakeholders to take part actively. Moreover, the system maintains the transparency of the City Governments' budget by utilizing ICT.

The challenges of e-governance is the fact that threats in the form of cyber-crimes such as: denial of service; spoofing, tampering, repudiation, disclosure, etc. have been limited. Municipalities, if realized, have to invest continually in ICT infrastructure and capacity building of their ICT staffs. Even today, public servants have to have a digital literacy in order to engage in electronic or digital administrative systems.

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 GIS which improve long-term integrated urban and territorial planning and design, land administration and management and access to urban and metropolitan services (NUA §156).

Digital tools have been increasingly used by many ministries to increase the accuracy and reliability of spatial information contained in geospatial maps. This is especially to reduce the potential of land conflict, loss of revenues, inaccurate implementation of development agenda. In the time of COVID 19 Pandemi, to follow with public health protocols, such uses have also been increasingly implemented for serving the communities such as application for property ownerships.

The geospatial information system and Spatial Plans (GISTARU) that present online spatial plans at the local level are introduced in 2019. Initiated by the Ministry of Agrarian Affairs and Spatial Plans, it is aimed at providing spatial data that is open for public and is intended to create information transparency. Overall, it is a part of efforts to support the One Submission System (OSS) to facilitate the process of obtaining development permits in accordance with the spatial plan. Through the GISTARU, applications for investing in a certain area can be matched with Detailed Spatial Plans where the area is located.

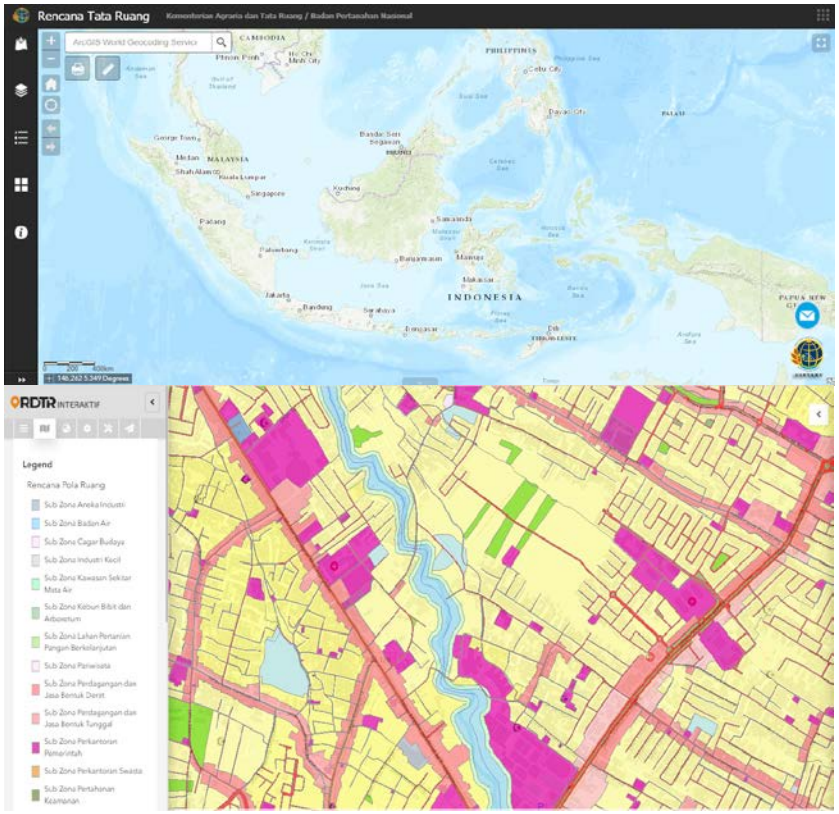


Figure 2. 11 An Example of Dashboard - Geospatial Information Systems and Spatial Planning (GISTARU)

Source: The Ministry of Agrarian and Spatial Planning

At the micro level, in the housing sector, it has introduced a housing development information system or SIBARU which processes housing assistance proposals from prospective beneficiaries (Local Government, Ministries or institutions, Islamic boarding schools, etc.) to the Ministry of Public Works and Housing electronically and online. It uses geospatial data to recognize the proposed locations with whether or not there are current programs applied in such locations. SIBARU integrates various forms of housing application system based on the types of houses such as Flats Information System (Sirusun), Specific Housing Information System (Sirusus), Public and Commercial initiated Housing Information System (SiRUK) and Electronic Inhabitable Housing (E-RTLH).

The Geospatial information system has been implemented at the national level by the The Ministry of Agrarian Affairs and Spatial Planning/National Land Agency with the website bhumi.artbpn.go.id. BHUMI.atrbpn is a page in the form of an online map to access geospatial data from the Ministry of Agrarian Affairs and Spatial Planning of the National Land Agency. The purpose of BHUMI.atrbpn is to provide easy access to authoritative and other spatial data to the public, government and other institutions, to facilitate the disclosure of public information.

For the city/regency level, the following are city/regency that have implemented the digitization of geographic information systems. Cities that have implemented a digital and transparent-based geographic information system include Jakarta (Jakarta Satu One Submission System), and Surabaya Smart City.

2.3.3.3 Strengthen capacities at all levels of government to effectively monitor the implementation of urban development policies

The capacity of governments, especially civil servants to engage in implementation of urban development, especially to monitor the implementation of urban development policies are embedded in the national level efforts to monitor implementation of local development policies. For urban affairs especially at the local level, such capacities are enforced through monitoring and evaluation as a part of program management, by developing performance indicators, and calculating its performance that fit into the authority at the municipalities and provincial level. Many government institutions develop their performance indicators for monitoring and evaluation, but its interpretation at the local level creates other learning processes as these have to be within the authority of each level.

A Local Government Information System (SIPD), initiated by MoHA, is a system that documents, administers data based on the implementation of programs/project by local governments[4]. This is especially for local, including urban, development policies at the five-year periods. In 2021, SIPD is a digital based form filled by the local governments to collect targets achieved based on performance indicators developed by local governments. It includes e-database that includes, inventory and processes data on regional conditions based on online, e-planning, which is an online-based system for formulating regional development planning policies, e-monev (monitoring evaluation) is a system used to assess and measure the performance achievement of online-based regional development implementation and e-reporting.

Figure 2. 12 A Dashboard of Local Government Information System (SIPD)
Source: Ministry of Home Affairs of the Republic of Indonesia

The capacity of local government to implement their programs/activities is measured by local government innovation index which is aimed at in-time execution, following accountability measures and several other generic indicators. Initiated by MoHA, local governments encourage people to fill up the online forms that are aimed at getting into the Innovative Government Award. Since it was initiated in 2015, there are more local governments participating in engaging in innovation as presented by the index. The following is the number of provinces, cities or districts that implement local innovation

[4] Based on Regulation of the Minister of Home Affairs Number 98 of 2018, SIPD is an information system used to manage data and information, prepare, monitor and evaluate regional development plan documents electronically.

Table 2. 10 The Number of Provinces, Municipalities or Regencies That Implement Local Government Innovation 2015-2019

Indicator	Year									
	2015		2016		2017		2018		2019	
	P	M/R	P	M/R	P	M/R	P	M/R	P	M/R
Number of local governments facilitated by MoHA in implementing regional innovation	16	26	17	27	21	52	30	195	34	227
Number of LGs implementing regional innovation	12		3		8		12		12	

Note: P = Provinces, M = Municipalities, R = Regencies

Source: Ministry of Home Affairs Research and Development Agency Performance Report 2019

Capacity development of local governments' civil servants are also encouraged by several ministries, including National Development Planning Agency/Bappenas, who continually train them for monitoring and evaluation of development policies.

2.3.3.4 Support all levels of governments in the collection, disaggregation, and analysis of data

The quality and availability of data, either in numerical or geospatial, especially to represent the state of public affairs, has received increasing attention from the national government. As experiences show that unrepresentative often contradictory data can mislead the description of the situation or jeopardize public decision making. In-migration to large cities represent the needs of public services such as housing provision for migrants. Presenting real time data is also increasingly assembled, especially to reveal changing landscapes / situations and for assessing before making public decisions, as in many cases of disaster management in Indonesia.

At the national level, synchronizing data, either numerical and geospatial become a national program as One Data (Satu Data) governance that assure quality, integration and data sharing through employing digitization efforts[5]. This allows various government agencies to gain access to data from a single source reducing redundancy and uncertainty, at the same time employing standardization of data. The availability of data in digital forms is an entry point towards electronic public services such as e-procurement.

This is not without critiques, as presented, various data produced by various sources may provide insights from different perspectives. Behind these various data is the need of particular approaches employed to gain data. For example, data on clean water consumption can be surveyed as consumed by individuals or by households. Both will lead to different percentages of clean water consumption coverage.

While One Data secretariat in National Development Planning Agency/Bappenas acts as data mentor, efforts to create one data is currently developed by data guardians (*wali data*). Data guardian is related to the authority held by government institutions. For example, the Ministry of Labor whose responsibility is on labor data coordinates on standardization of and survey of data at the national and between national and local governments. At the local level, local governments also coordinate their mismatched data

[5] As legalized by Presidential Decree No. 28 of 2019. Data can be accessed in https://data.go.id.

and information to be One Data, such as those in Gianyar Regency or Banyuasin Regency. At the municipality level, Semarang, Pontianak, Bandung, Surakarta, Pangkalpinang, and Palembang have shown their effort to produce One Data format.

Data disaggregation especially between rural and urban areas using One Data, since it is government driven, may limit data to those only from governments only. This will limit the ability to capture expansion of urban areas, or in /out migration of population. This leaves to Statistics Indonesia to continue to play roles in data disaggregation between urban and rural. For geospatial data, there are several ministries at the national level that produce maps, such as Environment and Forest for forestry maps, Agriculture for soil and agriculture maps, Energy and Mining, or National land Cadastre for land ownership map. One Map policy, as a part of Open Data Indonesia movement, is an approach to unify land administration and reduce conflict from land boundaries as a result of mapping. A relatively newly formed Geospatial Information Agency (BIG) is expected to be involved in this provide official geospatial disaggregated data on urban and rural.

The reliance on governments to produce data can potentially reduce participation of non-government institutions such as research entities or private sectors to engage in data production. The movement of open data guides people as well as reseachers to use data that is accessible, and visible especially if it represents information that previously has non-existent or off limit data.

3

Follow Up and Review

The mechanisms, tools, framework and/or methodology that have been developed in Indonesia to monitor and report on the implementation of the New Urban Agenda is following the already well-established mechanism of SDGs report. The main reasons for such adoption is twofold: nearly half of NUA metadata is similar to SDGs and the proven practicality and validity of such a mechanism.

According to National VSR 2021, a framework for multilevel government interaction for SDGs implementation has been created through sharing and delegating responsibilities to the local level. This includes providing coordination mechanisms for SDGs monitoring, evaluation and reporting as well as aligning local policies with national policies on integrating SDGs implementation to local development plans.

National Development Planning Agency/Bappenas has worked steadfastly in adapting, adopting and implementing SDGs in Indonesia. One approach is re-interpreting targets and indicators that can be applied in Indonesia's public policies. Currently, there are 17 goals, 94 targets and 319 indicators that are adopted and monitored in Indonesia. Guidance for metadata indicators is developed and classified into pillars. In addition, SDGs dashboard is set to show progress on SDGs implementation using statistical data from the Ministry of Finance, Statistics Indonesia, Geospatial Data Centre and other institutions.

Inter-level coordination and participation of local governments in implementing SDGs in Indonesia is partly related to the roles of provincial governments as representatives of the national government. National Development Planning Agency/Bappenas develops guidelines for formulating LAPs, MER and reallocates financial resources that also bind the local level. It is expected that LAPs to be ratified locally and resources from the public budget can be dedicated to implementation. Even though LAPs at the provincial level have been mandatory since 2018, until 2021 only 29 out of 34 provinces have LAPs that have been ratified as local regulations. At a district level, formulating LAPs is not mandatory. When guidelines and facilitation from the National Development Planning Agency/Bappenas reaches this level, it is emphasising on the importance of MER. Municipalities/regencies are expected to fill in matrices provided by the National Development Planning Agency/Bappenas and submit them to the provinces. Provinces compile the filled matrices to be submitted to National Development Planning Agency/Bappenas. National Development Planning Agency/Bappenas will produce an annual national review of SDGs implementation and use local data as an input for preparing the review Direct guidance on autonomy at the local level derives from the Ministry of Home Affairs (MOHA), a different ministry from National Development Planning Agency/Bappenas. Strategic Environmental Assessments (SEAs) for LMDPs is the entry point to which the SDGs are adopted. Since the regulation was only enacted in 2018, it only affected local governments who held elections since that year. From 2018 to 2020, there have been 441 local elections held out of 519 or approximately 80% of local governments have been exposed to SDGs implementation through conducting SEAs. The contents of SEAs for LMDPs include selection of SDG targets based on development issues at the local level, projecting SDGs achievement, challenges and how to achieve them. There is also assessment on (statistical) data availability for SDG local indicators. Once they are part of LMDPs, they become a part of Local Annual Working Plans (LAWPs) and translated into Local Annual Budget Allocations (LABAs).

Republic of Indonesia
Voluntary National Review

for Implementation of

NEW URBAN AGENDA

Illustrative Action
2021

Republic of Indonesia

ILLUSTRATIVE ACTION

This additional part to the main body of report serves to illustrate the propositions and commitments contained in the New Urban Agenda with action-oriented policies that have been put into practice. As the report guideline requires, case studies that incorporate systematic empirical evidence and documentation of experiences are presented in this part. While various scales of intervention, ranging from local to national, are prominent and therefore a key consideration in the New Urban Agenda, it is understood that improving the governance of urbanization is more pressing than solely improving different urban sectors. Three principles being laid out in the New Urban Agenda, leave no one behind, ensure sustainable and inclusive urban economies and ensure environmental sustainability, are inherently described within the following cases.

Taman Fatmawati, Wonosobo

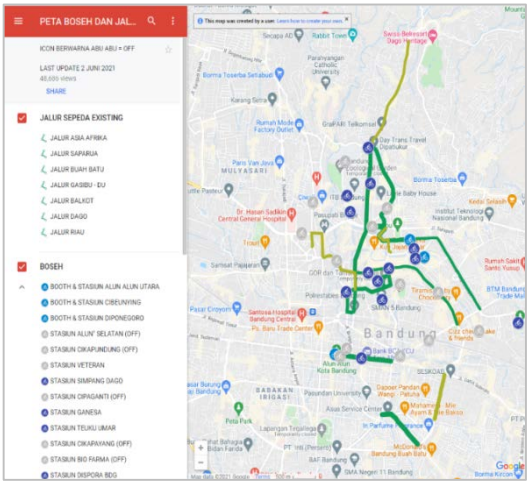
The city of Wonosobo has been intensively building green open spaces as a follow-up to the Green City Development Program (P2KH) with a local program called Wonosobo Green City. Fatmawati Park, as one of the parks in Wonosobo, was built at the end of 2015 as a reward for Wonosobo Regency as the best local government in carrying out the P2KH in the previous year. Fatmawati Park was named after the first lady of Indonesia "Fatmawati" as a form of appreciation for her services for Indonesia. The name also contains a philosophy of social learning to create harmony in social relations between Indonesia's diversity.

While funding for building and development of Fatmawati park came from the National Government, the responsibility for park management was given to the Central Java Provincial Government and the Wonosobo Regency Government. From a total of 3 hectares area provided by the government, only 1 hectare was developed to become Fatmawati park. The park has put forward the principle of green open space for all (social inclusion), by developing special path for the disabilities in the form of a yellow line and ramp as well as a nursing room. It was designed with the concept:

- Active Park, equipped with child and disability friendly facilities, which accommodate various activities, including recreation, playing, relaxing, exercising, performing arts and culture and social interaction or having an ecological function to absorb pollution and rainwater;
- Productive Park, by building plant nurseries to allow regular change of plant types;
- Independent Park, independent operational park funding through local management without being dependent on the Wonosobo government's budget for plant nursery production, regional parking levies, venue and facilities rent service for public and commercial events.

Source:
http://sim.ciptakarya.pu.go.id/p2kh/knowledge/categories/best-practices/3

Boseh: Bike Sharing in Bandung city



Bandung city government has built a bicycle path and bike sharing program. Bike-sharing stations are placed in bulk transportation points such as bus terminals and train stations. BOSEH is abbreviation for "Bike on The Street So Everybody Happy" is the official name for Bandung Bike Sharing System. It began with a donation from Association of ITB Alumni around 2012, with the provision of 150 bicycles that can be rented at the rate of US $ 0.205 per hour in 12 stations in the area of Buah Batu and Dago (UNESCAP, 2018). Early in its implementation, the stations were attended with a staff to assist customers in renting, paying, etc. Then around 2015 to 2016, PT. Banopolis Inovasi Kendara (Banopolis) created and developed the modernise version of Bike Sharing system for Bandung. After long process they took in mid of July 2017 they put BOSEH Bike on trial phase and then made some improvement for the e-money payment from previously with Bank BJB to use BRIZZI card of Bank BRI. For security reasons, the bikes are equipped with GPS. Additionally, there are electronic surveillance system to maintain supply and avoid empty stations as well as manual surveillance by the Patrol Team of BOSEH.

Source:

1. *https://www.boseh.bike*
2. *https://bit.ly/stasiunboseh*

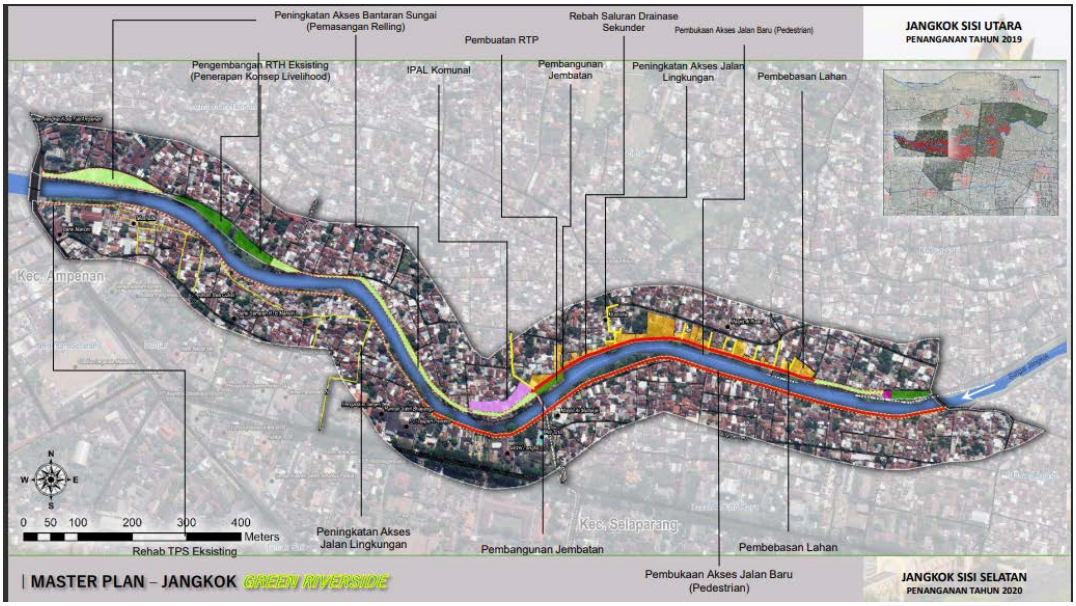
Slum Upgrading Programmes of Jangkok River, Mataram City

Since 2009, slum upgrading in Mataram city has been implemented in collaboration between community sources, local government, and *Badan Amil Zakat Nasional* (BAZNAS). Through this form of collaboration, inadequate houses can be improved with BAZNAS source of fund, particularly if the government programs, such as Kotaku and BSPS, are inaccessible (MoPWH, 2019a).

The Jangkok watershed, covers an area of at least 170km2, is located in Mataram City. While included in Strategic Area of the City in terms of environmental carrying capacity function and the importance of economic growth, 73 hectares of the Jangkok watershed is considered as a slum area since they have high density buildings, poor sanitary and hygiene as well as lacking in waste disposal facilities.

The main idea in the revitalization of the Jangkok watershed is to restore the function of the watershed to its original state with the concept of Green Riverside. With this concept, the riverbank becomes an open space for community activities. In addition, the Jangkok watershed area has the potential for economic development from the aspect of eco-tourism, waterfront culinary, freshwater fish rearing with a floating cage system, small and medium-scale home-based businesses (convection businesses, *tempe* and laundry industries). To support the ecological sustainability of this slum upgrading, the Mataram city government has a clean river program in collaboration with BWS Nusa Tenggara 1 through the operational and maintenance fields and involves community organizations known as the River Care Community (KMPS) in each village along the Jangkok watershed.

The design concept for the arrangement of the Jangkok Watershed Area, Pejeruk Village, among others, includes: repair of pedestrian roads, neighborhood roads, pedestrian drainage, environmental drainage, communal septic tanks, public street lighting, construction of bridges, additional 5 units of boats, installation of railing along 1 km and construction of green open space. A concrete bridge with 13 (eight) meters long and 5 (five) ameters wide was installed to connect traffic that was previously cut off due to Secondary Drainage.



To carry out the Green Riverside Concept, it is necessary to have a Public Open Space equipped with public street lighting. Jangkok watershed area is now transformed into a beautiful, clean and beautiful area—aligned with the Vision of the City of Mataram "Towards a Liveable Mataram City, Sustainable and Child Friendly".

Source:

1. *MoPWH (2019a)*
2. *kotaku.pu.go.id*
3. *DPKP Mataram (2019)*

SIMBAH in Malang Regency

The Urban and Rural Drinking Water Grant (DWG or *Hibah Air Minum* (HAM) in Indonesian) Program for Low-Income Communities is a breakthrough step implemented by the Ministry of Public Works and Housing to accelerate public access to drinking water which has been implemented since 2010. The program is aimed at Regional Water Supply Enterprises, while the Rural Human Rights Program is aimed at the organizers of the Rural Drinking Water Supply System.

From 2010 to 2020, the program has served approximately 8.5 million people with 1.7 million household connections at 357 regencies/cities in 33 provinces in Indonesia. The grant funds were given based on calculation of two to three million rupiahs per house connection. The total budget for this program is considerably higher than the average house installation cost because it considers the investment in distribution network development.

One of the municipalities with a high commitment to implementing the Urban Drinking Water Grant Program is Malang Regency which is proven with its participation in the last 5 years. From 2015 to 2020, Malang Regency has succeeded in installing 32,000 house connections for 128,000 low-income people. The Malang Regency Government is also committed to providing a total capital investment of One hundred fifty-five billion rupiahs to its drinking water company - Perumdam Tirta Kanjuruhan. The equity capital is annually allocated to the company.

Perumdam Tirta Kanjuruhan uses the capital to increase production capacity, network repair and installation of household connections. This company has also developed a Grant Customer Information System (GCIS or Sistem Informasi Pelanggan Hibah (SIMBAH) in Indonesian) application that can monitor the implementation of the Drinking Water Grant Program. The application contains all information regarding the program, namely location coordinates, photos of the condition of the house and pictures of electric-meter from low-income people as the prospective beneficiaries. The development of this application aims to ensure the reliability of data related to the list of potential beneficiaries. This application also makes it easier for the Malang Regency Drinking Water Company to supervise at every stage of program implementation.

Source: MoPWH (2021)

BOTAK: Bogor Tanpa Kantong Plastik (Bogor without Plastic Bags)

The upsurge of bans of single-use plastics in Indonesia, such as plastic bags, is proof that Indonesia is able to overcome its plastic pollution problem. After Dr. Jenna Jambeck's research publication in the journal Science in 2015 which mentions Indonesia as the second largest plastic waste producer (187.2 million tons each year) and thus being the second largest marine plastic polluter in the world, Indonesia has made several assertive initiatives. Following the success of cities of Banjarmasin, Balikpapan dan Badung in the campaign to reduce plastic bags, Bogor city government supports the campaign to reduce plastic bags through the Mayor Regulation No. 61 Year 2018 on Reduction of Plastic Bags in shopping centers and modern stores. This regulation aims to reduce household plastic waste in Bogor city, which can accumulate to 1.8 tonnes monthly. This policy is called as BOTAK program, a catchy phrase meaning as bald head in Indonesian. Since August 2018, Bogor city government has disseminated in 150 venues within 3 months, supported by environmental communities and several CSOs.

The policy was firstly aimed at retail shops, and in August 2019 started to be implemented in modern markets. The outreach to traditional markets began in 2020 to meet zero plastic bags target by 2025. Since its implementation, the number of waste in Galuga landfill has reduced by 16% (100 tonnes) a day from previously 650 tonnes to 550 tonnes. Such rate of waste reduction is inseparable to the fact that there are 27 TPS3R and 346 waste banks in Bogor. For this success, the government of Bogor City has received an award at the National Waste Awareness Day 2021 and Local Incentive Fund. Taking the commitment to plastic-free city even further, in cooperation with WWF Indonesia, Bogor has declared to be Plastic Smart Cities as part of WWF's No Plastic in Nature initiative (WWF NPIN) to stop leakage of plastic by 2030.

Source:

1. *Bappenas, 2021;*
2. *https://kotabogor.go.id/*

Suroboyo Bus in Surabaya City

Since 2018, Surabaya city government provided Suroboyo bus which requires passengers to pay travel fare with used plastic bottles and cups. Such plastic waste can either be paid at stations and terminals, by which passengers receive stickers to be redeemed for tickets, or on board the bus to be traded with tickets. Each bus has been equipped with waste bin and press machine. Since its implementation, three waste banks (Bank Sampah Induk Surabaya, Bintang Mangrove, and Pitoe) have cooperated in collecting the plastic waste from bus stations and terminals in order to be processed accordingly.

One ticket, for two hours ride, can be paid with 3 options: 3 large bottles with capacity of 1500 ml, 5 medium bottles with capacity of 600 ml, or 10 plastic cups with capacity of 240 ml. It operates from 7 AM to 10 PM within the interval of 15 minutes, the bus has also been connected with intelligent road traffic system, which turns the traffic light green allowing for faster travel. The control centers are in Bratang dan Joyoboyo terminals,

With the capacity of 67 passengers, Suroboyo bus, has also been equipped with different seat colors designated for women, pregnant mothers, and elderly, Additionally, it has 12 CCTV camera in its interior and 3 CCTV cameras on the exterior, automatic sensor on the bus door, as well as emergency button.

However, with the expanding network service and boarding passengers, it has now been upgraded to include electrical payment system. Passengers are able to scan QRIS code through their mobile phone and make payment. Mobile application, GOBIS Suroboyo Bus. has also been launched. It allows passengers to get information on the nearest bus location as well as telling bus driver of waiting passengers on each bus stations through QR code scan.

Source:

1. *https://humas.surabaya.go.id/tag/suroboyo-bus/;*
2. *https://belalangcerewet.com/*

Waste to Energy in Malang Regency

One of the innovations for the application of renewable energy at the community level is in Malang Regency -East Java, utilizing methane gas resulted from waste residue in the landfill (TPA) as alternative energy for the adjacent community. Along the road to the landfill location, there are long pipes to connect houses. There are at least around 250 families who benefit from methane gas from the Talangagung Landfill as fuel for household activities. In addition to biogas, the Talangagung Landfill has also been able to process organic waste into fertilizer through composting process and production of organic fertilizer plus the mixing of composting fertilizer with manure. The landfill waste innovation is also capable to generating electricity with a capacity of 500 to 750 watts (MoPWH, 2019).

Since the waste coming into the landfill tend to have been naturally fermented, methane gas can immediately be harvested. The daily waste collected of 150 cubic meter is able to produce 3 cubic meter of gas per hour. There is no retribution required to obtain methane from the landfill, but the community management group charged consumers Rp 6.000 per month for maintenance and further network development.

Source:

1. *MoPWH (2019);*
2. *https://www.terakota.id/menyelamatkan-sungai-brantas/*

Waste to Refuse Derived Fuel in Cilacap and Tuban

Population growth has an impact on changes in the quantity, composition, and characteristics of increasingly complex waste. In order to reduce the pile of waste in the landfill, the government encourages the processing of waste into Refuse Derived Fuel (RDF) as an alternative fuel which can be utilized by the cement industry and power plants. Such technology has been implanted in Jeruk Legi Landfill, Cilacap Regency (Central Java Province).

It was resulted from collaboration between PT Solusi Bangun Indonesia Tbk (SBI), Cilacap District Government, Denmark Government, Ministry of National Development Planning, Ministry of Public Works and Housing (MoPWH), and Ministry of Environment and Forestry. Launched in July 2020 with minimum capacity of 120 tons of waste with bio-drying treatment to generate approximately 60 tonnes of RDF as a substitute to 40 tonnes of fossil fuel per day (Bappenas, 2021; https://cilacapkab.go.id/).

Following Cilacap, RDF plant in Tuban district resulted as collaboration between SBI, MoPWH, Semen Indonesia Group, and Tuban District Government. Every cement factories under the Semen Indonesia Group is sought to replicate such technology. TPA Gunung Panggung in Semanding District, Tuban Regency, receives 50 TPD of waste every day. The composition of the waste received varies between food waste, garden waste, plastic, paper, wood, rubber, leather, metal, and other types of waste.

The process scheme of the RDF system uses a loop system with a capacity of 120 tons/day. The type of waste that enters the RDF has a moisture content of around 55%. Waste input with generation of 30 tons waste/hour placed in the packing bay. Then the waste goes to the shredding process, which previously sorted. Waste in the form of ferrous metal and hazardous waste has separated, while the other waste is then processed by shredding. After the shredding process, the waste is taken to the bay for the bio drying process.

This bio drying process aims to reduce the water content of the waste in order to produce a high heat content. In addition, the process can remove water content by 20% and mass loss of around 52%. In this process there are 9 bays with area of 30 x 10 m and this process takes 21 days. The next process is the refinement process into the final form of RDF. In this process there are 3 types of RDF produced in the form of inert (> 15 mm), product RDF (15-80 mm), reject (> 80 mm). For RDF that is rejected or oversized, it is shredded back to size >15 mm, this is because the size is the RDF specification for the Cement Plant.

Source:

1. *Bappenas (2021);*
2. *https://cilacapkab.go.id*

Simplification of Licensing Types for the Improvement of Service Quality and Investment Climate in Kediri City

Despite having an integrated one stop service (PTSP), Kediri City still has some licensing services managed by sectoral government offices. Business people or those wanting to run a business often had to go from agency to agency to complete the licensing requirements. On the other hand, there were licenses that seemed to be similar but were issued by different government agencies. For example, to open a vocational training institution, a business person or applicant had to apply for two different licenses, namely vocational training institution license to the Social and Employment Agency, and course and training institution to the Education Agency.

In April 2014, Capital Investment Board (BPM) and PSTP of Kediri City initiated a mapping on licensing that fell within the authority of Kediri City Government so that there was a clear understanding on the number and types of licenses. The initiative was followed by an innovation, namely a simplification on the types of license. Simplification on the types of license consisted of steps taken to reduce the types of license that were the authority of local government, while keeping the existing laws and regulation as references. Thank to the simplification, the procedures to start a business is automatically shorter and easier.

BPM and PTSP of Kediri City, along with the Legal Division and Organization Division of the City Government, assisted by a third party namely the Association for Small Business Improvement (Perkumpulan Untuk Peningkatan Usaha Kecil or PUPUK), established a small team to conduct a licensing mapping for licenses managed by sectoral offices as well as those already managed by BPM and PTSP. The number of types of licenses in Kediri City was reduced from 153 types into 58 types of licenses. The application of simplification on licensing brought positive impact to the City. Kediri City received East Java Investment Award in 2015. In 2016, BPM PTSP of Kediri City received an award from the Indonesian Investment Coordinating Board (Badan Koordinasi Penanaman Modal, BKPM) as one of the best providers of integrated one stop service at national level for the category of deregulation or simplification of licensing in a city.

Source: Association of Indonesian Municipalities (AIM)/APEKSI 2017

Bandung Creative city

Creative economy in Indonesia is a sector to support enabling fair environment for business and innovation, which is capable of supporting larger financial industries, such as tourism, trades and cooperative and SMEs. It helps cities like Semarang to be known for its culinary tour, Bandung with its independent clothing industry, Jember with its fashion festival, and Denpasar with its craft industry. These cities are connected through the Indonesian Creative Cities Network (ICCN) based on a set of 10 principles to guide the notion of a creative city, inspired in part by the Bandung Declaration. These principles are rooted in support for social life, culture and cultural interaction, sustainable environments, viability and accessibility. Cities were interested in enhancing their positioning nationally and internationally through branding, and as a way to focus state activities and investment. First Pekalongan became a UNESCO city of Crafts and Folk Arts, followed by Bandung as a City of Design. This has led to other cities eager to follow suit. In the meantime, both Solo and Bali had developed local creative city structures with civil society involvement.

Bandung city is one of the four cities of the South East Asian Creative City Network. The influence of the Institute's design faculty, its many high level educational bodies, the growth of the design sector in the city and the growing links of the sector to the city's garment manufacturing sector all played a significant part in why Bandung has become a Unesco City of Design (part of its creative cities program). Bandung is a relatively wealthy city in Indonesia and has a growing middle class. It is from this middle class that majority of the 50 founding members of the Bandung Creative City Forum (BCCF) emanated. Through over 250 projects they invited other citizens from diverse communities to join them in creative interventions to make changes. One of its four main projects was Helarfest, an annual event featuring some 30 projects across the city that spanned a range of arts and design disciplines as well as traditional rituals and performances. The Creative City program has now been shifted from being a totally independent citizen driven project to one that is now also part of the municipalities programs. This gives it significant status, access to resources and an opportunity to influence a range of municipal services.

Source:

1. MoPWH (2017);
2. *https://creativecitysouth.org/*

Cimahi Technopark

Technopark is one of the priorities of the elected president and vice president for the 2014-2019 period as stated in the Nawacita, people's productivity and competitiveness in the international market. In the 2015-2019 RPJMN, Cimahi City became one of the cities selected in the development of technoparks.

Technopark is a concept as a center for the implementation of technology. Cimahi City has officially established Cimahi Techno Park (CTP) in 2016 in collaboration with the Agency for the Assessment and Application of Technology (BPPT). Although titled "park", Cimahi Technopark does not literally mean a park where you can sit in the open. The definition of a technopark according to the International Association of Science Park (IASP) is a professionally managed initiatives/organizations that aim to improve the welfare of the community by encouraging a culture of innovation and competitiveness of knowledge-based industries and institutions in it. In other words, Cimahi Technopark is a special space built and fostered by the Cimahi City Government to develop a technology-based economic industry.

The three-story building, plotted on 1 hectare area, of Cimahi technopark has various technology-based creative industry supporting facilities, such as convention hall, tenant rooms, discussion rooms, laboratories, and the Baros Innovation Center (PIB) to support the development of technology-based innovative businesses. The main focus of Cimahi Techno Park is collaborating with start-up companies and young technopreneurs to advance the IT-based Cimahi economy, especially businesses in the food-beverage, digital creative, handicraft and textile industries. With the guidance and supervision of BPPT, several technopreneurs in Cimahi have started to enter the national, even international market.

Electronic fishery products, for example, facilitates the process of feeding fish so that it can reduce production costs by up to 70 percent or equivalent to RP 2.5 billion per month for large-scale companies. The e-fishery system has now been applied not only in West Java and Lampung, but also abroad such as Thailand and Bangladesh. In addition to e-fishery, other global works also come from Gerry Nusa Muhammad who succeeded in developing a virtual reality system for Hajj rituals. At Cimahi Technopark, young technopreneurs have the opportunity to receive incentives and guidance because the technopark has opened a flagship program for one year to attract many quality startups to then receive guidance, ranging from business incubator programs to improving management and production efficiency.

In 2020, the Cimahi's municipality government received an award with the title of Outstanding Achievement of Public Service Innovation 2020 in the National Scale from the Ministry of Administrative and Bureaucratic Reform, Republic of Indonesia. This award was

given for the existence of the Cimahi Technopark Area as an Integrated Service Center for Cimahi City's Local Economic Development based on Innovation, Science, and Technology through the Quadruple Helix collaboration.

Source: https://www.cimahitechnopark.id/

Building Community Disaster Preparedness and Resilient through School Based Disaster Risk Reduction (BCDPR SbDRR) in Sigi Regency

The earthquake, tsunami and liquefaction disasters that occurred on September 28, 2018 in Central Sulawesi have resulted in various very detrimental impacts, ranging from around 2.227 people died, 965 people were missing and 2.537 people were injured. Various responses from the government and non-government were immidiately carried out in the emergency response. In the recovery phase, various organizations are still carrying out programs in the community, but it was seemed to be lacking in schools to prepare students to be aware of disasters. Therefor, the Foundation for the Study and Protection of Children (PKPA) iniatiate the program BCDPR SbDRR in school environment in Sigi Regency.

The implementation of this program is carried out with various approaches, starting from the coordination of 11 schools, village government, sub-district and several stakeholders at the district level. In addition to coordinating, activities such as training, FGD< socialization and procurement of disaster risk reduction facilities in the school environment are also carried out. The program has reached 1.442 beneficiaries consisiting of all students and teachers in 11 schools in 5 villages of Tanambulava sub-district and other representatives.

The implementation of this program began to face challenges when the Covid-19 pandemic occurred, where student activities could not be carried out in large numbers. This program has the potential to inspire various regions in Indonesia that are prone to disasters to do the same thing to increase disasater resilience early on.

Source: Bappenas, 2021

Retrofitting flats for Covid-19 Emergency Hospitals as a response to COVID-19 Pandemic

In Indonesia, there have been several conversions of buildings into COVID-19 emergency hospitals because the need for COVID-19 special hospitals has increase. Some of them are the conversion of The Wisma Atlet in Jakarta, Galang Island Covid-19 Emergency Hospital, University of Gajah Mada Academy Hospital (Yogyakarta). Athletes Village in Kemayoran, Jakarta, has been converted as an emergency hospital facility due to a shortage of health facilities for the Covid-19 pandemic. Since March 25, 2020 to August 9, 2021, the 8 towers of Wisma Atlet have accommodated 124,265 Covid-19 patients.

All operations are assisted by cross-sector and volunteers, under the command of the Indonesia COVID-19 Task Force. Cross- sectoral and ministerial coordination is carried out for the conversion, preparation and operation of this Athletes Village Emergency Hospital. The Ministry of PWPH the National Disaster Management Agency (BNPB), Indonesia COVID-19 Task Force, the Ministry of SOEs, the Ministry of Health, the Ministry of EMR, State Electricity Enterprise, the Indonesian National Military and the National Police are coordinating for the conversion and provision of emergency hospital facilities and infrastructure. All installation work, including the installation of medical equipment and traffic lanes in the Emergency Hospital, follows the protocol set by the Ministry of Health. Meanwhile, coordination for the provision of paramedics is carried out by the Indonesian National Military, as well as joint paramedics from hospitals managed by SOEs, and the Indonesian Doctors Association (IDI). Since March 2020 the Ministry of SOEs has opened registration for those who are willing to become humanitarian volunteers at the Wisma Atlet Emergency Hospital, Kemayoran. This deployment is carried out to meet the needs of medical and non-medical personnel.

Athletes Village received an appreciation from the Ministry of PAN and RB (Ministry of Administrative Reform and Bureaucratic Reform) as one of the Top 21 Public Service Innovations in handling Covid-19 in Indonesia and fulfills innovation criteria such as being novel, useful, effective, and transferable. So that this can be a learning and exchange of knowledge, both at national and international level. Other than the athlete guesthouse, there are 56 towers of flats in other 27 province set to be temporary facility for COVID-19 isolation.

Source: MoPWPH (2020a)

Integrated State Border Post of Indonesia

The Integrated State Border Post (PLBN) is a place of inspection and services for entry and exit of people and goods in and out of the territory of the Republic of Indonesia using passports and/or cross-border passes. This Integrated PLBN is an increased function of the Cross-border Checkpoint (PPLB) which provided services in the fields of immigration, customs, quarantine, security, and management administration.

The construction of this Integrated PLBN is meant to increase national competitiveness and equitable distribution of development results, while reducing disparities, especially in the 3T regions (frontier, outermost and underdeveloped). In addition, it also intended to improve the welfare of the people in the border area by making it a new center of economic growth. Currently, there are 18 (eighteen) Integrated PLBNs spread across Indonesia's border areas. The border areas are the Indonesia-Malaysia, Indonesia-Timor Leste and Indonesia-Papua New Guinea border areas.

The National Border Management Agency (BNPP) is the manager of this border post area. This area is located in a sub-district and this place is an integrated area which consists of a core zone and a support zone. Within the core zone there are, among others; the main building of the Integrated PLBN, the gate of the core zone of the Integrated PLBN, the check point building, the pedestrian corridor, the building and substation for immigration inspection and customs services, the building and substation for immigration inspection and customs services for cargo cars, the integrated inspection building for private and passenger cars. Meanwhile, in the support zone, housing for employees and Wisma Indonesia as guesthouse will be built.

Source:

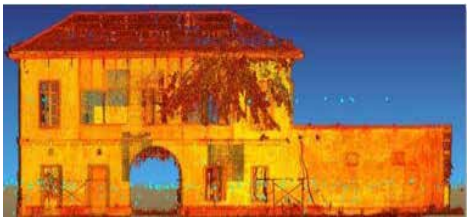
1. *Pos Lintas Batas Negara di Indonesia. https://id.wikipedia.org ;*
2. *ciptakarya.pu.go.id*

Conservation of Tangsi Mempura Heritage Building, Siak Regency

Law No. 28/2002 on Buildings states that buildings and their environments designated as cultural reserves must be preserved. Furthermore, Law Number 11/2010 on Cultural Heritage confirms that the state is responsible for the regulation, protection, development and utilization of cultural heritage. In order to provide guidelines for the preservation of the Cultural Heritage Buildings, the MoPWH issued Minister Regulation No. 1/2015 on Preserved Cultural Heritage Buildings. In the same year, the Technical Guidelines for the Preservation of Buildings of Cultural Heritage Buildings were compiled. In order to strengthen the understanding of P3KP members in the technical aspects and philosophy of preservation of Cultural Heritage Buildings, a workshop on preservation of Cultural Heritage Buildings was conducted in 2017 in Siak.

Siak serves as one of the best cases in heritage building conservation. Tangsi site contains a total of 7 buildings, several times undergoing a renovation process. In 1996 the renovation was carried out by the Regional Office of Culture and Tourism. The building was heavily damaged at that time. In 2005 and 2008, the building was restored again by the Office of Tourism, Culture, Youth and Sports of Siak Regency. In 2017, the building which was originally functioned as an arsenal collapsed.

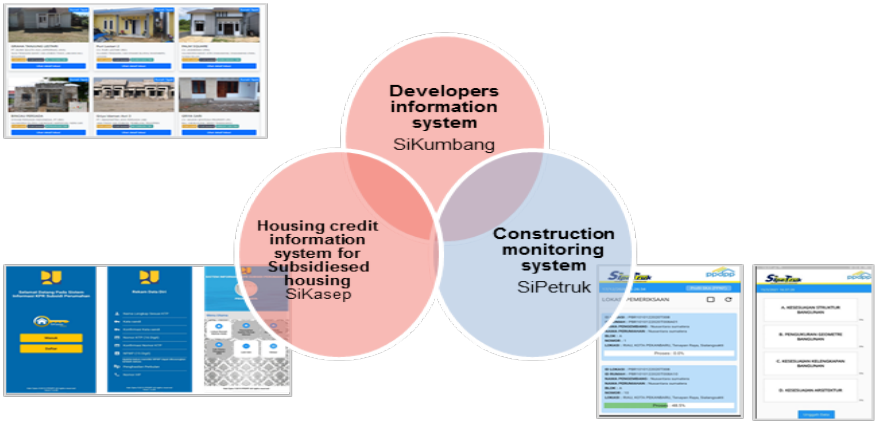
The technical planning process was carried out for 6 months by involving various parties. The research and documentation carried out includes: 3D Laser measurement and material testing by the Office of Jambi Cultural Heritage Conservation; Excavation of the foundation structure by the Medan Archaeology Center; Land testing and drilling to determine the composition of the subsurface, and determine the water level in the soil in order to conclude the treatment of building walls; Documentation and Inventory Damage by experts from the Architectural Documentation Center; Review of architectural history by experts from the Center for Architectural Documentation; and Preservation guide by the Architectural Documentation Center Expert, which contains damage analysis and architectural changes, significance ranking in each building element, and preservation policy recommendations.



Source: MoPWH, 2019

Development of Information Systems to support the distribution of Housing Financing Liquidity Facilities for low-income communities

Since 2016, The Ministry of Public Works and Public Housing, through the Housing Financing Fund Management Center (HFMC or Pusat Pengelolaan Dana Pembiayaan Perumahan (PPDPP) in Indonesian), has started to develop information systems to deliver the Housing Financing Liquidity Facility (Fasilitas Likuaditas Pembiayaan Perumahan (FLPP) in Indonesian) for low-income communities. In 2016 PPDPP launched e-FLPP, which change the banks' verification mechanism from conventional to digital and speeding up the distribution of FLPP to prospective debtors. PPDPP has also developed a Developer Registration System (DRS or SIRENG) which ensures that developers who build subsidized houses are registered as members of the housing developer association.



At the end of 2019, PPDPP launched the SiKasep application (Housing Subsidized Mortgage Information System). Through the SiKasep application, the public as users can determine the location, apply for subsidies, and choose the desired bank through smartphones; the government can monitor housing developments; and the banks can verify customers more easily. The SiKasep application is supported by housing stocks data provided by housing developers in SiKumbang Application (Housing Developers Information System). By the end of 2020, PPDPP launched the Construction Monitoring System (SiPetruk) application to ensure the quality of housing built by developers complies with the standards set by the government.

By developing these integrated information systems, PPDPP can provide data about residential needs from the community and the availability of housing built by developers. As of August 12, 2021, PPDPP's Management Control has stored 546,137 user data. As for data on accommodation availability, as of August 12, 2021, there are 14,963 registered locations with 1,162,657 total registered landed houses and 3,509 total registered apartment units. The platform developed by PPDPP has successfully facilitated the exchange of information between potential beneficiaries, banks, developers and PPDPP itself to distribute housing subsidies for low-income communities.

The innovations developed by PPDPP have received various awards. In 2020, PPDPP was awarded the National Top Digital Awards 2020 in three categories: TOP DIGITAL Implementation 2020 on Institute # Level Stars 4; TOP DIGITAL Transformation Readiness 2020; and TOP Leader on Digital Implementation 2020. In the same year, PPDPP also received an award from the Property n Bank Awards 2020 as The Best Leadership in The Distribution of Affordable Housing Subsidies for its President Director and from the Housing Estate Awards 2020 as The most innovative public service agency for affordable housing. The system that PPDPP has developed has also received recognition from the Ministry of Finance. The Ministry of Finance stipulates that all houses with a sale value of

less than five billion rupiahs have to be registered in this system for tax relief. The use of the siKumbang platform has also grown. It is used to facilitate the provision of houses for low-income people and all homes whose value is under five billion rupiah. In the future, the system developed by PPDPP is expected to become a big data system related to housing development in Indonesia.

Source:

(Ministry of Public Works and Housing, 2020).

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