
Cuba

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Table of Contents

Table of Contents	2
Executive Summary	4
Stakeholders and Partnerships	5
Covid-19 Response	6
Sustainable Development Goals	7
Part 1: Transformative Commitments for Sustainable Urban Development	8
1: Transformative Commitments for Sustainable Urban Development	9
1.1. Sustainable Urban Development for Social Inclusion and Ending Poverty	9
1.1.1. Social Inclusion and Ending Poverty	9
Eradicate poverty in all its forms	9
Address inequality in urban areas by promoting equally shared opportunities and benefits	11
Enhance social inclusion of vulnerable groups (women, youth, older persons and persons with disabilities and migrants)	12
Ensure equal access to public spaces including streets, sidewalks, and cycling lane	13
1.1.2. Access to Adequate Housing	15
Ensure access to adequate and affordable housing	15
Ensure access to sustainable housing finance options	16
Establish security of tenure	17
Establish slum upgrading programmes	18
1.1.3. Access to Basic Services	20
Provide access to safe drinking water, sanitation and solid waste disposal	20
Ensure access to safe and efficient public transport system	22
Provide access to modern renewable energy	23
1.2. Sustainable and Inclusive Urban Prosperity and Opportunities for All	25
1.2.1. Inclusive Urban Economy	25
Achieve productive employment for all including youth employment	25
Strengthen the informal economy	27
Strengthen the informal economy	28
1.2.2. Sustainable Prosperity for All	29
Diversify of the urban economy and promote cultural and creative industries	29
Develop technical and entrepreneurial skills to thrive in a modern urban economy	31
Develop urban-rural linkages to maximize productivity	32
1.3.1. Resilience, Mitigation and Adaptation of Cities and Human Settlements	34
Minimize urban sprawl and loss of biodiversity resulting from it	34
Implement climate change mitigation and adaptation actions	36
Develop systems to reduce the impact of natural and human-made disasters	38
Build urban resilience through quality infrastructure and spatial planning	40
1.3.2. Sustainable Management and Use of Natural Resources	42
Strengthen the sustainable management of natural resources in urban areas	42
Drive resource conservation and waste reduction, reuse, and recycling	43
Implement environmentally sound management of water resources and urban coastal areas	44
Adopt a smart-city approach that leverages digitization, clean energy and technologies	46
Part 2: Effective Implementation	48
2: Effective Implementation	49
2.1. Building the Urban Governance Structure: Establishing a Supportive Framework	49
Decentralize to enable Subnational and local governments undertake their assigned responsibilities	49
Link urban policies to finance mechanisms and budgets	50
Develop legal and policy frameworks to enhance the ability of governments to implement urban policies	52
Build the capacity of local and Subnational governments to implement local and metropolitan multilevel governance	53
Implement participatory, age- and gender-responsive approaches to urban policy and planning	55
Achieve women's full participation in all fields and all levels of decision-making	56
Implement integrated and balanced territorial development policies	58
Integrate housing into urban development plans	60
Include culture as a priority component of urban planning	61
Implement planned urban extensions and infill, urban renewal and regeneration of urban areas	63
Improve capacity for urban planning and design, and training for urban planners at all levels of government	64
Strengthen the role of small and intermediate cities and towns	66
Implement sustainable multimodal public transport systems including non-motorized options	67
2.3. Means of Implementation	69
Develop financing frameworks for implementing the NUA at all levels of government	69
Mobilize endogenous (internal) sources of finance and expand the revenue base of Subnational and local governments	70
Formulate sound systems of financial transfers from national to Subnational and local governments based on needs, priorities and functions	71
Mobilize and establish financial intermediaries (multilateral institutions, regional development banks, Subnational and local development funds; pooled financing mechanisms etc.) for urban financing	73
Expand opportunities for city-to-city cooperation and fostering exchanges of urban solutions and mutual learning	74
Implement capacity development as an effective, multifaceted approach to formulate, implement, manage, monitor and evaluate urban development policies	75

Build capacity at all levels of government to use data for evidence-based policy formulation including collecting and using data for minority groups	76
Build the capacity of all levels of government to work with vulnerable groups to participate effectively in decision-making about urban and territorial development	77
Engage local government associations as promoters and providers of capacity development	79
Implement capacity development programmes on the use of legal land-based revenue, financing, and other tools	80
Implement capacity development programmes of Subnational and local governments in financial planning and management	81
Increase cooperation and knowledge exchange on science, technology and innovation to benefit sustainable urban development	82
Develop user-friendly, participatory data and digital platforms through e-governance and citizen-centric digital governance tools	84
Expand deployment of frontier technologies and innovations to enhance shared prosperity of cities and regions	86
Implement digital tools, including geospatial information systems to improve urban and territorial planning, land administration and access to urban services	87
Build capacities at all levels of government to effectively monitor the implementation of urban development policies	88
Strengthen all levels of government and the civil society in the collection, disaggregation, and analysis of data	89
Part 3: Follow-up and Review	90
3. Follow-up and Review	91
Additional Information	92

Executive Summary

Cuba, despite the cruel economic, financial and commercial blockade imposed by the US government for over 60 years, has assumed its commitment to promote the NUA to advance with environmental, economic, social and cultural equality towards universal access to adequate housing and quality urban infrastructure, increase the resilience and sustainability of human settlements, paying special attention to the adverse effects of climate change. Based on the environmental, economic, social, demographic and political characteristics and conditions, the implementation of the NUA is aimed at determining the relevant and priority actions that consolidate cities and human settlements as drivers of sustainable development.

Stakeholders and Partnerships

Institute of Physical Planning, Ministries of Economy and Planning, of Labor and Social Security, of Science, Technology and Environment, of Communications, of Health, of the Food Industry, of Energy and Mines, of Tourism, of Finance and Prices, of Justice, of Education, of Higher Education, of Domestic Trade, of Foreign Relationships, of Agriculture, of the Revolutionary Armed Forces, of the Interior. Ministry of Construction-General Housing Division, Ministry of Transportation-General Transportation Division of the Havana Provincial Administration and Engineering and Environmental Management of Transport Center, Ministry of Culture-National Council of Cultural Heritage, National Civil Defense Staff, National Institute of Water Resources, National Statistical and Information Office, Network of Offices Historian and Curator of Heritage Cities, Central University of Las Villas, Technological University of Havana, Cuban National Union of Architects and Engineers of Construction, Federation of Cuban Women, Antonio Núñez Jiménez Foundation of Nature and Man and Provincial Administrations of the Peoples' Power.

Covid-19 Response

The Cuban State approved the Economic and Social Strategy to boost the economy and face the global crisis caused by COVID-19, which covers the sectors of production, marketing, exports, the financial system, driving and management of the economy, among other areas. It has worked in two stages: in the first, with three phases, its essential content is to face the pandemic and health issues prevail. In the second stage, the economy and its recovery are fundamental. In addition, the National Plan for Food Sovereignty and Nutrition Education was approved, with the support of the Food and Agriculture Organization of the United Nations (FAO) and the collaboration of Oxfam International. The National Housing and Habitat Program is ensured and as support, updates to various instruments of territorial and urban planning were approved.

Sustainable Development Goals



Goal 11 - Make cities and human settlements inclusive, safe, resilient and sustainable

Part 1: Transformative Commitments for Sustainable Urban Development

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

- **Eradicate poverty in all its forms**

The Global Multidimensional Poverty Index of 2010 was reported in the 2011 Human Development Report that the United Nations publishes every year since 1990 and was updated in 2011, 2013, 2014, 2015, and 2016. Since 2013, the National Statistic and Information Office incorporated in its studies and research the methodologies to calculate and construe the MPI and in 2017 included in its National Occupation Survey the global indicators of the Multi-dimensional Poverty Index (MPI). The MPI is an alternative indicator to the traditional method of measuring poverty by monetary incomes, which is conceptually incomplete since poverty is a complex multidimensional phenomenon that cannot be measured on the basis of one indicator alone. The monetary poverty approach does not allow determining the deprivations in wellbeing and rights of people in other life dimensions, among others, health, education, standard of living, employment and social security. Cuba aims at participating in the global measurement of these indicators due to the results achieved through the broad and continuous social and investment programs for the benefit of the whole population, irrespective of the economic income levels. The MPI allows to measure with accuracy the progress being made in measuring the indicators that evidence the eradication of poverty in Cuba, its social and territorial differences as a multidimensional phenomenon and compare the results internationally and within the national territory. The Global MPI uses three standard dimensions: health education and standard of living equally weighted for its calculation (1/3 of the value) and with different indicators for each of these dimensions (Table 1). Based on these dimensions and its indicators and with the application of the different calculation algorithms, the Global MPI for Cuba in 2017 (Table 2). The MPI is calculated by multiplying the incidence of the population living in Multidimensional Poverty (0.4%) by the intensity of poverty (36.8%) and adjusting the result. The 36.8% means that within all the persons with deprivations in the indicators measured, that percent coincides in three of those indicators. The default value of the PPI calculation system is 33.3%. The figure of 50,000 multidimensionally poor people in a population of 11.2 million inhabitants in 2017 is a highly commendable result for a country that suffers a commercial and financial blockade, a negative condition that the rest of the countries analyzed do not endure and that, together with other indexes such as the human development index, life expectancy and environmental sustainability, evidence the social development achieved by the Cuban population. United Nations Program for Development between 2018 and 2020. Hence, they are in full harmony and can be compared with the results of the 107 countries in which the MPI is measured and published and that, all together, are home to 5 million of the more than 7.5 million people who inhabit the Earth today. Another noteworthy result in Cuba is the lack of destitute. With 1.6% of the population vulnerable to multidimensional poverty, Cuba stands third among the ten countries with the best results in this international indicator, and therefore ranks third among the 107 countries in which the MPI is measured. This 1.6% means that only that value of the indicators measured coincides in two indicators in one person and, therefore, if in time a third indicator were to coincide, that person would become a multidimensional poor. Another positive result is the contribution of deprivations to calculate the MPI values. Cuba is, together with Serbia, one of the countries with the lowest values in the health dimension and ranks fifth in education. Indicators such as schooling years and school attendance, child mortality and access to electricity account, all together, only 4.6% of the deprivations. The 2020 Global Report on Multidimensional Poverty mentions that the MPI was calculated by urban and rural area, though results by countries are not presented. The calculated value of the urban MPI –where 77% of the Cuban population lives– was 0.001; the only country in the OPHI-Oxford global database with a lower value is Armenia. The value for the rural area is 0.005 and ranks 12 –together with the State of Palestine–

only preceded by Armenia, Ukraine, Serbia, Turkmenistan, Jordan, Kazakhstan, Montenegro, Trinidad and Tobago, Maldives Islands, Albany, Thailand, and Moldova. In other words and in relation to the total population, it means that 99.82% of the urban population in Cuba (almost all the population) is not multidimensionally poor, and in the case of the rural population it represents 98.35%. Calculating the Global MPI for Cuba allows to obtain provincial level values but given the fact that there are only 50,000 multidimensionally poor people in a population of just over 11.2 million inhabitants, calculation at the provincial level does not guarantee the representativeness of the sample in the statistical analysis of the coefficient of statistical variation of the values obtained. By way of illustration, the values at the provincial level are presented herewith, listed in descending order (Table 3).

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

The National Economic and Social Development Plan up to 2030 (PNDES) defines the vision of the nation as a sovereign, independent, Socialist, democratic, prosperous and sustainable nation. This summarizes the aspirations of the struggle for the full emancipation and unity of the nation throughout its entire history. This vision of the nation implicitly demands the design of a development approach capable of comprehensively addressing and tackling –under the leadership of the Cuban Communist Party– the main difficulties faced by the Cuban society in the environmental, economic, social, cultural, political, ideological, ethical, moral, legal, institutional, technological and demographic spheres; address the future challenges of a very complex political, military, financial and commercial international situation, an increasing cultural hegemony and the constant scientific, technological and climate changes. Cuban development is conceived not only in terms of greater economic growth but also in terms of increasing the satisfaction of the population and its quality of life; in eliminating economic and social disparities and a fairer distribution of the wealth. Social development is also conceived as the attainment of different objectives, assuming a multidimensional development approach with a comprehensive vision of the life of human beings to fully develop their potentials and improve their standard of living and material wellbeing of the society as a whole; attain greater equality and transform social values, behaviors and relations. Human development is accorded the highest priority within the Cuban social model, seeking equality, social justice and the wellbeing of all persons. The policies underpinning this model combine the universal approach with the focus on vulnerable groups, as well as national potential, goals and priorities with local ones. Policies are designed taking into consideration the different baselines of the population in order to reduce inequalities and are updated with the participation of all citizens. They are conceived in a dynamic interrelation with the economic development since there is a bidirectional relationship between both dimensions. Free and universal access to quality basic social services is guaranteed and coverage has increased, especially in the rural areas. The housing deficit is being reduced, local capacities and articulation among different actors are harnessed and better quality is observed in the new constructions as proven by the satisfaction of the benefitted population. The capacities of the working age population and the qualified labor force are effectively used in accordance with the economic and social development planned. Labor is the main source of prosperity and wellbeing. Salaries and retirement pensions cover the basic needs in terms of consumption of goods and services and to this end, a diversified and segmented offer is available in accordance with the different demands. Cuba is a pioneer in proposing a tool that enables the coordination of such important topics as urban planning and legislation, housing, local funding, productive economic activity, technical infrastructure, mobility and accessibility, resilience, risk management, and climate change mitigation and adaptation, in the economic and social development efforts. Both the National Plan of Action to implement the Cuban NUA (PAN) and the 2030 PNDES place the territory at the center of any social and economic development effort, in order to promote the development of compact urban structures that guarantee the best possible use of potential internal growth in cities and human settlements, with a direct impact on the reduction of territorial vulnerabilities and imbalances. On the other hand, the Antonio Núñez Jiménez Foundation of Nature and Man (FANJ), since the very first programs, has been supporting (with workshops, publications, visits, and instructive consultations) the private sector to promote and articulate socially and environmentally responsible business management. Besides a sustainable management of natural resources (mainly water and energy), this guarantees equal treatment of workers, respecting their rights irrespective of any kind of differences, a better distribution of the profits and a direct impact on the wellbeing of neighborhoods or territories where the enterprise is located. Other actions implemented deal with the promotion of the Protection of Consumer Rights (Ministry of Domestic Trade, 2018). To this end, documents have been published and workshops have been held with different institutions, for a better understanding and implementation of these precepts by all, thus guaranteeing greater satisfaction of and equal opportunities for all citizens in their daily life.

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

During more than 60 years, the country has worked for the inclusion of all groups and sectors of the society, with the same rights and duties for all as a principle of the social policy and the socialist development model of the nation. The Constitution of the Republic of Cuba, adopted in 2019 by popular referendum, states the social inclusion of the most vulnerable groups (National Assembly of Peoples Power, 2019) as well as equal rights for men and women. The State, the society and the family recognize youth as active participants in society and to this end create the conditions for its integral development; protect, assist and facilitate conditions to meet the needs of the elderly in terms of their self-determination, integration and social participation; and have the obligation to protect, promote and ensure the full exercise of the rights of the disabled, thus guaranteeing the full exercise of the rights of the youth, the elderly and the disabled. The inclusion of women as an active participant in the civil society and the public sector is consolidated. In 1995, women accounted for 42.3% of the labor force and in 2018 represent 49%. More than 80% has middle and higher education level and represent 67.4% of the education personnel; 81.9% of professors and teachers; over 70% of judges and attorneys; 69.6 % of the workers in public health; 62% of doctors; 64.2% of the personnel collaborating in several countries of the world; 63% of the financial intermediation sector, and 53.5% in the field of science, innovation and technology (Cuba, 2019). In the self-employed sector (non-state sector), there are 197,205 women, representing 34% of the total workers and with the same rights and women employed in the state sector. As to the occupational level of those employed, women represent 95% of the workers with middle or higher education level, placing them in an advantageous situation to access quality jobs that demand high qualification. The continuous efforts to guarantee substantive equality are yielding results (Cuba, 2019). Access to education is universal and free and shows relevant results, with parity in primary and secondary education; 65% of university graduates and 48% of researchers are women. The share of women in higher education is quite remarkable: out of the 85,353 workers, 52,515 are women (61.5%). The teaching staff totals 62,640 persons, out of which 37,072 are women (59.18%) (Cuba, 2019). Women account for 64% of university enrollment, with an outstanding presence not only in traditionally female-dominated disciplines like Pedagogical Sciences (80%) and Social Sciences and Humanities (74.6%) but also in others like Medical Sciences (68%), Economic Sciences (67.2%), and Natural Sciences and Mathematics (61.87%). Women also account for the majority of university graduates (60.2%) and of those who undertake post-graduate studies (57.8% of the enrollment) (Cuba, 2019). Within the framework of the Colaboration Project Articulated Platform for Integral Territorial Development (PADIT) project, 35 initiatives contributing to increase gender equality and strengthen and reaffirm women empowerment were promoted and implemented (Phase 1 and Phase 2). In 2019, 2 initiatives were added to support women's participation in the labor market and, in many cases in leadership positions. Main working areas include: food mini-industries, homes for the elderly, charcoal production, solid waste management, crop houses, food preparation centers, job orientation centers, hat manufacturing and local handicrafts, 26 de Julio Agriculture Production Cooperative, tourism and culture, high-quality seedlings and fruit, vegetable, meat and root vegetable processing mini-industries (PADIT, 2020).

- **Ensure equal access to public spaces including streets, sidewalks, and cycling lane**

All cities and urban settlements in the country with a political administrative function, as well as all municipal seats have an urban planning scheme in place adopted by the Municipal Assemblies of the Peoples' Power (AMPP). Such schemes include the location and design of public spaces through urban policies and dimensioning, aimed at: Ensuring the quality of public spaces in consolidated urban settlements and in the areas to be consolidated, rehabilitated and developed, paying special attention to green spaces and pedestrian mobility, thus fostering an intense and enriching social interaction. Incorporating public spaces such as parks, squares, pedestrian walkways, bike lanes and others, for resting, recreation and permanent social interaction. The State Plan to implement the Cuban NUA includes in its Strategic Planning Axes: "Recover the attention to be paid to public spaces in Cuban city planning and empower local administrations to make good use and manage well such public spaces." The Physical Planning Institute (IPF) developed a methodological tool for planning green and public spaces in urban development plans in order to foster the green space system. An example of this is the fact that Havana has a Special Green Space Plan in place, covering big parks, like the National Zoo, the Botanic Garden, the Havana Metropolitan Park, the Lenin Park, while suburban green areas surrounding the Monumental Highway and the First Ring are being consolidated and steps are being taken to foster tree-lined streets. Other main cities like Santiago de Cuba, Camaguey and Holguin also have big urban green areas. Intermediate cities in the center of the country also show good practices in addressing urban public and green spaces. Such is the case of Cumanayagua in the province of Cienfuegos and of Cabaiguan and Jatibonico in the province of Sancti Spiritus (Figure 1). For some years now, the average share of green space in the main Cuban cities is of approximately 9 square meters per inhabitant (Institute of Physical Planning, 2015). If this value and the values recommended for the urban environment in the quoted document are taken into consideration, the green space system should be within the 9-12 square meters per inhabitant range (Institute of Physical Planning, 2015). The Sustainable Development Goal Indicator 11.7.1 establishes that the average share of the built-up area of cities that is open space for public use for all was first measured in 2019. The system of open spaces of a human settlement is considered to include all the open spaces free of buildings and conceived for different purposes, implicitly including community activities. Such spaces are an inseparable part of the habitat and of urban developments in general and function as an indispensable component of the territorial planning, which includes the land allotted to streets. In general and on average, 12.66% of the surface of Cuban cities is dedicated to public and green spaces, and only Santiago de Cuba is above the national average. The goal for 2036 is to achieve 15%. In recent years, Antonio Núñez Jiménez Foundation of Nature and Man (FANJ) has continued to foster inter-institutional processes that highlight the need to preserve the ecological nature and function of the Monte Barreto Park. With a 16-hectare extension and located in the Playa Municipality of Havana city, this park has followed the trend of the last decade of prioritizing its recreational and food selling functions over those of a city park with great values as a biological corridor and for the drainage of neighboring municipalities. Under FANJ, different planting campaigns are being implemented in the area, as well as scientific studies, particularly the Biodiversity Monte Barreto Chapter Initiative, linking the community and participatory science with the assistance of several scientific centers and neighboring schools. This motivates the inclusion of children and youth in local scientific knowledge activities (FACTSHEET 1) promoting the institutionalization, management, governance of green spaces and their inclusion in public policies, which in turn fosters understanding about the contribution of green spaces to the resilience of cities and to climate change adaptation and impact mitigation efforts. The managing committee of this initiative is made up by the IPF, the National Botanic Garden, the Quinta de los Molinos, the Landscape Commission of the Cuban National Union of Architects and Construction Engineers (UNAICC), the Cuban Association of Agriculture and Forest Technicians, the Civil Society of Heritage, Community and Environment, and the Plant Initiative. One of the outstanding outcomes of this initiative was the inclusion of the urban tree planting issue in the Forest Policy of the Wild Fauna and Flora, which is in the process of being approved by the Council of Ministers. As part of this process, the National Botanic Garden was designated to be in charge of the nursery for urban tree planting and of

establishing a School of Horticulture. As an outcome of the workshops, a guide entitled “Listado feliz para arbolado viario en Cuba” (FANJ, 2019) was developed, which includes 25 species, biodiversity criteria and fosters the use of native plants in the nurseries of the city. Another initiative has been implemented with the cooperation of Habitat II and a 1% local tax contribution (Granma Newspaper, 2019) for the recovery of public spaces in human settlements that I promote the participation of citizens in comfortable, more attractive, safe, inclusive and accessible places for all. The outcomes of this has been the revival of public spaces such as the Avenida Libertad and Avenida Valentín Menéndez promenade in Aguada de Pasajeros, Cienfuegos; the Children and Serafin Sanchez playgrounds and the mini park in the zone of buildings in Jatibonico, Sancti Spiritus; the mini park in the building for the victims of natural disasters and the Boulevard in Manicaragua, and La Republica promenade in Quemado de Guines, Villa Clara (FACTSHEETS 2, 3, and 4).

1.1.2. Access to Adequate Housing

- **Ensure access to adequate and affordable housing**

Article 71 of the Constitution of the Republic of Cuba recognizes the right of every person to adequate housing and a safe and healthy habitat. Hence, the construction of houses in Cuba is planned under a national plan approved annually by the National Assembly of the Peoples' Power (ANPP), taking into account the demand and construction capacity of each territory. The Housing Policy (Ministry of Construction, CUBA, 2018) recognizes the existing housing stock deficit and plans its recovery in a ten year period. Its objectives foster habitability, guaranteed technical structures and protection of vulnerable groups: Prioritize households affected by meteorological events and eradicate precarious conditions. Evaluate the status of the demographic dynamic in each territory, particularly the housing situation of women with three or more children. Comply with the State Plan (Life Task) regarding the instruction of not allowing the construction of new houses in coastal human settlements or in places vulnerable to climate change impacts. Pay attention to the "Turquino Plan" (ECURED), which prioritizes communities in the mountain areas and the Zapata Swamp. Carry out investments in houses according to their location, design and technologies. Optimize the local production of construction materials and use them in accordance with the constructive typology. Design projects in line with the policies adopted for the effective use of energy and water. Design houses in accordance with existing Cuban regulations that foresee, among others, rational use of land and weather events or earthquakes. Housing development in Cuba is based on affordable houses without distinction as to class or race. Land is a public asset and does not constitute an element for urban speculation and hence it can be accessed or allotted under perpetual surface rights. Social housing is affordable and has to comply with specific standards, even those houses built by the population themselves, despite the genocidal economic, commercial and financial blockade imposed by the United States of America against Cuba, stepped up in recent years. In 2018 alone, 96% of its effects in the construction sector were due to lack of access to effective technologies and means in the US market to increase the construction of houses (Ministry of Foreign Affairs (MINREX), Cuba, 2018), currently worsened by the Covid-19 pandemic. The Housing Policy in Cuba attaches great importance to self-built housing by the population. Currently, 60% of the houses in the country are built through this modality (Sierra Maestra Newspaper). Indicators to evaluate the implementation of the Housing Policy: Share of houses for families affected by meteorological events and eradication of houses with precarious conditions; Number of houses aimed at benefitting households with three or more children. Proportion of houses to mitigate the impact of climate change under the Life Task program, to reallocate the houses. Percent of improvement of the technical conditions of the housing stock. To supplement this policy with a physical spatial vision, a Territorial Planning Scheme for Habitat (EOTH) was approved in Cuba by the Council of Ministers as per Agreement No. 92 of December 24, 2019 (Figures 2 and 3). The habitat development foreseen in the EOTH includes the demand for infrastructures and primary or basic services for the identified areas. Its implementation will contribute to reduce the existing deficit of such services in the suburban areas of the cities and to reduce the mobility of the population seeking basic services. As part of the efforts to mitigate this risk, guidelines were developed and urban planning good practices were identified (Figure 4) under the sustainability principle of "think globally and act locally". The Antonio Núñez Jiménez Foundation of Nature and Man (FANJ) has trained over 200 persons in 20 urban settlements of the country so as to increase, through design, the use of natural lighting and ventilation in the existing houses to reduce energy consumption economically benefitting the households and the country, and promoting a culture of sustainability. This housing design incorporates aspects that once multiplied will report valuable benefits to urban sustainability. Examples of this are the collection of rainfall from rooftops, the construction of ecological dry toilets, the production of food in rooftops and terraces, and others. These 200 persons, together with another 300 previously trained, create and implement their designs while disseminating and multiplying these valuable practices due to distancing required the Covid-19.

- **Ensure access to sustainable housing finance options**

Around 90% of the houses built by the State in Cuba are provided with the ownership title in exchange for a legal value that equals the price that an individual pays to the State for buying the house and where 80% of the construction expenses are subsidized. The owner of a house built by a state enterprise or entity incurs a debt with the Cuban Central Bank (BCC) that is repaid over a period of 15 years, with a monthly payment agreed between the parties and in accordance with the economic solvency of the benefitted household. In order to guarantee labor force stability, another two modalities to provide Cuban families with a house built by the State are the company let house and the hire-lease house contract. In both cases, occupants pay a monthly rent agreed between the parties and with a fixed term. In the first case, occupants pay a rent and in the second, the monthly payment is considered as part of total payment for the ownership of the house, according to the terms agreed.

- **Establish security of tenure**

According to the existing Cuban legislation, families enjoy absolute security of tenure. In 2019 alone –first year of the implementation of the Housing Policy– 44,566 houses were built. Around 40,000 families received their houses as owners, with an obligation to pay the value of the house to the Cuban Central Bank (BCC). Low income households –which are 100% subsidized–, are exonerated from this payment as well as those who built their houses by themselves. This provides full protection, security and accessibility to the occupants. Occupants of company let houses and hire-lease also enjoy security of tenure provided by the contract signed between the parties. Out of the 3,824,861 houses in the housing stock, 88% are owned by its occupants and 12% are handed in lease at subsidized or symbolic prices or as company lets and hire-lease. Houses in Cuba cannot be mortgaged, and are not accepted as collateral for bank credits requested by the population and, therefore, there is no eviction.

- **Establish slum upgrading programmes**

In Cuban cities, the populations living in precarious conditions due to deficiencies in technical infrastructures, critical constructive conditions or exposure to natural hazards, still meet their needs in terms of access to health services, education and social security (Figure 5). Seventeen cities show indicators above the national average, among them two that function as national sub-centers (Santiago de Cuba and Holguin) and two that function as provincial centers (Guantanamo and Ciego de Avila). The number of houses in precarious conditions amounts to over 459,768, according to the Policy proposed to eradicate precarious neighborhoods and pockets and houses in precarious conditions, drafted by the IPF together with the local governments in 2016, disaggregated by territory as follows: 575 precarious neighborhoods with 91,663 houses, which represents approximately 274,989 persons inhabiting these neighborhoods; 299 precarious pockets with 10,687 houses, which represents approximately 32,061 persons; 276,166 dispersed precarious houses, which represent approximately 828,498 persons living in these conditions; 157 buildings in critical conditions, with 3,086 apartments where 9,258 persons live; and 9,212 rooming houses and slums, with 77,986 rooms where 233,958 persons live. Havana has the highest number of houses in precarious conditions, amounting to over 80,000. Priority is placed in eliminating slums and in providing houses to those families currently staying in transition communities, either by supplying them a new house or upgrading their current houses. Both cities have been prioritized given their housing density and the fact that they constitute the main and second most important centers of the country, respectively. Hence, an approved housing strategy is in place in both cities, as conceived in the Housing Policy. The economic, financial and commercial blockade imposed by the United States on the island limits its access to the resources required to implement the programs to eradicate urban precariousness; however, with international cooperation and the 1% territorial tax contribution, small neighborhoods have been upgraded in the central area of the country (FACTSHEETS 5 and 6). In evaluating Indicator 11.1.1 of SDG 11: Proportion of urban population living in slums, informal settlements or inadequate housing, disaggregated by geographical location, the country shows a favorable trend. Measurements made in 2017 showed that 4.45% of the urban population lived in these slums and precarious neighborhoods, while in 2019 the figure went down to 4.05%, an expression of the will of the State and the priority given to this issue by local governments. The behavior has not been the same in all provinces (Figure 6) Matanzas and Cienfuegos show a setback, while Granma and Guantanamo succeed in reducing significantly this ratio. The increased ratio in the Isle of Youth is due to the reduction of its urban population. Given its social and environmental impact, this Indicator was incorporated to the Territorial Development Index (IDT), a synthetic indicator that monitors the progress been made in bridging territorial development gaps, as part of the evaluation and control of the 2030 PNDES and the Territorial Policy of the country. A good practice contributing to this goal is the establishment of a network of local orientation and training centers (CLOC) for habitat in the municipalities of Aguada de Pasajeros and Cumanayagua, in the province of Cienfuegos; Fomento, Cabaiguan, and Jatibonico, in the province of Santi Spíritus; and Remedios, Sagua la Grande, Manicaragua, Placetas, and Quemado de Güines, in the province of Villa Clara, under the Habitat II Project. The creation of these centers has improved the working conditions of the professionals at the Municipal University Center (CUM) and the quality of the educational and teaching process. It has also made available new technologies; favored academic development; improved the learning and capacity building processes; strengthened the links between institutions, companies, centers and social actors of the municipality; provided a methodology to implement training, orientation, information activities and consultancy services at the local level, and fostered interaction between the different activities implemented at that level. Also noteworthy is the establishment of mini-industries for the local production of construction materials in more than 27 municipalities, under the international cooperation projects Building Municipal Capacities for Local Development (Prodel) and Implementation of strategies for local habitat management at the municipal level (Habitat 2) (FACTSHEETS 7, 8, 9, 10, 11, 12, and 13). On the other hand, the Antonio Núñez Jiménez Foundation of Nature and Man (FANJ) is collaborating with other organizations working in precarious communities, where design is improving the habitat and living conditions of the families, particularly regarding

the collection of rainfall from rooftops and the construction of ecological dry toilets.

1.1.3. Access to Basic Services

- **Provide access to safe drinking water, sanitation and solid waste disposal**

There is a National Water Policy in place since 2012 and a Law on Water (INRH) was passed in 2017. Together, they address the use and preservation of water in the country, supplemented by the National Water Development Plan (the Policy implementation tool). This Plan includes short, medium and long term investments to address the water demands with an effective and sustainable use of the water available, as illustrated by the diversions, dikes and regional canals that are being constructed or refurbished in order to distribute the water that is not used by the agricultural sector or the population; protect against salinization of soils and underground water or for the defense of the economy and the population. The National Institute of Water Resources (INRH) is in charge of supplying quality water to the population and to all human settlements. To this end, surface and underground water sources fit for human consumption have been identified and the water treatment plants are in charge of supplying drinking water that meets the quality standards required for its use. To address the problem of supplying water to the cities, progress is being made in the reconstruction and expansion of the water supply network and network interconnections are being implemented to ensure water supply from different sources to address extreme drought and other contingencies. Likewise, old water pipelines are being replaced by new ones to reduce water leakage. A program of waterworks is being implemented and it includes the expansion of the network of underground water wells. Progress is also being made in the program for establishing desalination plants to supply quality water to cities and towns experiencing water shortages or where the saline wedge is affecting the quality of water in open aquifers. All this will improve the water supply service. Given the drought experienced in some regions, rational use of water is systematically analyzed nationwide. This allows increasing the proportion of agricultural areas under irrigation, production yield and food self-sufficiency in the territories (Escambray Newspaper, 2020). The drainage works being executed are also of vital importance to reduce flood areas, some of which are located in urban areas, thus reducing inhabitant's exposure to hazards. The rehabilitation of water and sewage networks in residential areas to reduce water leaks is also a priority. Likewise, in the urban context, collection and recycling of water is being encouraged and efforts are being made to increase the sale of fittings and accessories to the population, in some cases through international cooperation projects (FACTSHEET 16) (Radio Trinidad, 2019) (Escambray Newspaper, 2019). The supply of quality water and rational use of water resources is a key element to be considered in any urban development in the country. There are 13 state-funded provincial divisions and 145 municipal divisions for community services in the country. There are also 11 enterprises located in the provinces, three (3) of them in Artemisa, Mayabeque and the Special Municipality, covering all the community services, and the other eight covering only certain services located in Havana (3), Villa Clara (1), Sancti Spiritus (1), Ciego de Avila (1), Holguin (1) and Guantanamo (1). These enterprises charge most of the services to the Provincial Administration not to natural persons. Approximately 63,930 persons work in these enterprises and they cover a total of eight (8) activities: community and environmental hygiene; green areas, nurseries and floriculture, street furniture, roads, street lights, generators and distribution of water in tank trucks. A proposal for reorganizing this activity is being studied. According to the proposal, these services would be rendered through an entrepreneurial system under the provincial and municipal administrations of the Peoples' Power, in line with the structure defined by each territory. The services to be covered are, between others, the following: Community hygiene, which includes collection, classification and disposal of solid waste, sweeping of streets and public places, and care of green areas and street furniture. Pruning and felling of trees. Guarantees differentiated treatment of urban forest areas and could be integrated with hygiene activities, according to the characteristics of the territory. Public toilets. Renting of public toilets to non-state enterprises for their management. Community services will be managed by the provincial and municipal administrations of the Peoples' Power and by the business groups in the case of Artemisa and Mayabeque, according to the structure defined in each territory, except for the distribution of water in tank trucks, street lights and generators, as well as the control and planning of resources

for activities managed by the local administrations. Annual funding for community services amounts to approximately 38 million dollars. This amount will cover the purchase and maintenance of the equipment, means and materials required for producers and repairers to guarantee solid waste collection and funeral services. The current budget for Community Services amounts to 817,400,000 CUP, and includes payment to non-state enterprises for services rendered by the administration councils. These services are, between others, the solid waste collection; By the end of 2018, 4,915 tons of waste had been collected and there were 885 dump sites. More than 8 million inhabitants in the urban areas have garbage collection service, representing 77% of the Cuban population.

- **Ensure access to safe and efficient public transport system**

The State Plan for implementing the Cuban NUA recognizes in its Mobility/Accessibility Strategic Axes acknowledges the need to develop an efficient mobility system to improve the productivity cities and strengthen collective transportation system as a priority. The Planning Strategic Axes, on the other hand, states the need to “Strengthen the use of territorial planning schemes to improve coordination between key city factors: urban structure, mobility and public space.” The urban public transportation system in the country has been transformed in recent years, favoring collective public transportation over private means of transportation, with a healthy and efficient mobility system. By the end of 2019, 544,181,840 passengers were transported in the urban service in the country, 4% less than in 2016 (24,618,700 less passengers) due to the energy crisis faced by the country in September of that same year. The number of trips amounted to 5,190,300, representing an increase of 589,400 trips (13% more) with respect to 2016. Mobility in the urban service is 49 passengers/inhabitants and in 2016 was 51 passengers/inhabitants; the public transport mobility index is 0.46 daily/trips/inhabitants and 0.41 in 2016. The behavior of these indicators from 2016 to 2019 is shown in Figures 7 and 8 (Ministry of Transportation, 2020). Mobility in the main cities of the country was as follows: Havana, 164 passengers/inhabitants; Santiago de Cuba 45 passengers/inhabitants; Holguín 19 passengers/inhabitant, and Camagüey 29 passengers/inhabitants. To solve the complex problem of transportation in the capital, new transportation management services were put in place, namely bus cooperatives, micro-buses and private cars. A Passenger Transportation Management Policy and a Program for Transportation Development in Havana (Cubadebate, 2016) and Santiago de Cuba were adopted, containing four main strategies: Prioritize collective transportation (mass) as the most efficient and accessible way of transportation for the majority of the population. Encourage the use of non-motorized transportation (pedestrian and cycles) as more sustainable. Discourage the use of private cars, more pollutant and inefficient. Achieve comprehensive quality management to address deficiencies. The Infrastructure Strategic Axes of the National Plan of Action (PAN) aligned with the National Economic and Social Development Plan up to 2030 (PNDES) contemplates the improvement of mobility and transportation services in the country. To this end, mobility studies were conducted in Havana, Santiago de Cuba, Holguin, and Camaguey. The number of daily trips in Havana is approximately 4.6 million (DGTPH, 2018) (Figure 9) and integrated multimodal urban transport network projects are being developed, capable of generating short distance urban patterns. For this purpose, nodes and feeder buses have been established that promote a rapid public transport system that integrates railway and car transportation, safe and adequate infrastructure for pedestrians, electric motorcycles and bikers and technological innovations in the transportation and transit systems in order to reduce traffic congestion and pollution and improve efficiency, connectivity, accessibility, health and quality of life. Feasible ways of monitoring polluting gas emissions and alternatives for reducing these emissions are being studied. At the local level, the initiative “Bicycles for sustainable local mobility” of the International Cooperation Project Implementation of strategies for local habitat management at the municipal level (Habitat 2) and the Canadian NGO Cyclos Nord-Sud Project implemented in 10 municipalities of the central region facilitated the work of public servants providing services to the population within the local habitat management processes. In terms of quality of life, the Project improved the mobility of most socially and economically vulnerable citizens by facilitating their access to sources of livelihood, particularly of women (FACTSHEET 17). The municipalities of Aguada de Pasajeros and Cumanayagua in the province of Cienfuegos; Fomento, Cabaiguan, and Jatibonico in the province of Santi Spíritus; and Remedios, Sagua la Grande, Manicaragua, Placetas, and Quemado de Güines in the province of Villa Clara, participated in this initiative.

- **Provide access to modern renewable energy**

One of the objectives of the State Plan for the implementation of the Cuban NUA is to foster the use of renewable energy sources. Changing the share of renewable energy sources from 4% to 24% in the energy matrix by the year 2030 (CITMA, CUBA, 2020), is an outstanding effort and cities, play an important role in promoting more efficient ways of consuming electricity that does not depend on fossil fuel. Locating new technologies for the production of energy based on natural resources and gradual replacement of incandescent light bulbs with LED bulbs is among the actions implemented. Important programs are being implemented such as the National Program for the development of energy sources, these programs were implemented because of their economic and social impact, and to reduce Greenhouse Gas (GHG) emissions (CITMA, CUBA, 2020). Guaranteeing an environmentally sustainable, adequate, reliable, diversified and modern energy supply that significantly increases the share of renewable energy sources in the national energy matrix. Currently, one of the main programmatic documents in this sector is the Policy for the prospective development of renewable energy sources and efficient use of energy (2014-2030). This policy backs the main activities being implemented in the country to fulfill the National Economic and Social Development Plan up to 2030 (PNDES), the Nationally Determined Contributions (NDCs) in terms of mitigation and the SDGs, particularly SDG 7. One of the main indicators of that policy is the increased share of renewable energy sources with the installation of 2,144 MW of new renewable generation power to transform the electricity generation matrix by increasing the share of renewable energy sources. The following actions have been defined (MINEM, CUBA, 2020): Installation of 612 MW in bioelectric plants (Granma Newspaper, 2020) in 17 sugar mills. Installation of 745 MW in 13 wind farms (Granma Newspaper, 2019) (Granma Newspaper, 2019) in previously defined areas. Installation of 2,104 MW in PV solar parks (Cubadebate, 2019) (Granma Newspaper, 2019). Installation of 41 MW in hydropower (Cuba energía). Development of the national industry infrastructure for the domestic production of spare parts and equipment for renewable energy. By the end of 2017, the level of electrification of the country stood at 99.7%. Future expansion of the National Electric Power System is essentially based in increasing the share of renewable energy sources, and the installation of new capacities in gas-fueled combined cycles (CITMA, CUBA, 2020). An important step was the enactment of Decree-Law No. 345 of March 23, 2017 on the “Development of Renewable Energy Sources and Efficient Use of Energy” with the objective to establish the regulations for the development of renewable energy sources contributing to: Increase the share of renewable energy sources in power generation; Gradual replacement of fossil fuels for generating electricity; Increase energy saving and efficiency; Encourage energy investment in renewable energy sources. Develop the production of equipment, means, and spare parts by the domestic industry for renewable energy and energy efficiency; and Establish a work system within the state sector that plans the different tasks to be carried out in order to achieve the objectives foreseen. The production of primary energy (oil, natural gas, wood and cane bagasse) is illustrated in Figure 10, the domestic production of primary energy in 2018 was 2.5% lower than in 2015 (CITMA, CUBA, 2020). Biogas, wind and solar energy is still insignificant (CITMA, CUBA, 2020). The national production of secondary energy in 2015 was 1.3 times higher than the production of primary energy; in 2016 it was 5.3% lower; in 2017 it was 17% lower and in 2018 it was 18.8% lower (CITMA, CUBA, 2020). The secondary energy production matrix in 2018 was the following: 53.8 % oil-based, 42.8 % electricity, 2 % manufactured gas, 1.2 % charcoal, and 0.3 % denatured alcohol (CITMA, CUBA, 2020) (Figure 11). Generation of electricity between 2015 and 2018 shows a slight increase of 2.7%. Generation by thermal power stations represented a 55% in 2018, followed by diesel engines (generators) with 28.7% and gas turbines and combined cycles with 12.7%. Technologies using renewable energy sources only generated 3.6% of electricity that year (CITMA, CUBA, 2020) (Figure 12). Efforts have been made to consolidate the regulatory framework of renewable energy sources and energy efficiency. For instances: the Resolution 152 on the “Manual Inspection of Energy Carriers” (MINEM, CUBA, 2018) and the Resolution 283 on the “Permits granted by Ministry of Energy and Mines” (MINEM, CUBA, 2014). Many actions are implemented for the production of biogas (FACTSHEET 18).

1.2. Sustainable and Inclusive Urban Prosperity and Opportunities for All

1.2.1. Inclusive Urban Economy

- **Achieve productive employment for all including youth employment**

Cuba is building a prosperous and sustainable Socialist society. Environmental, economic and social sustainability is associated with development and requires economic growth rates and structures that ensure prosperity with justice and social equity in harmony with the environment; the rational use and preservation of natural resources; and the preservation and enrichment of the nation's heritage. Sustainable increase of social production and wealth are an essential prerequisite for steadily improving the quality of life and standard of living, the full realization of the human being and its individual, family and collective projects through a fair and equitable distribution of wealth to eradicate unlawful inequalities. The Republic of Cuba is a Socialist State where Jose Marti's profoundly humane and democratic principle "with all and for the good of all" has been put into practice during six decades. The ultimate strategic objective is the comprehensive development –individual and collective– of the human being with high ethical values and principles and for which purpose the basis of the new social relations must be progressively consolidated. The priorities of the Cuban Government focus on promoting the full and integral development of the human being; attaining economic development with equity and a better quality of life and higher standard of living for the population; consolidating the ethical and political values as well as the practices and attitudes that distinguish us as a society; consolidating also the achievements of the Revolution such as free access to health, education, culture, sports, justice, social security and civic peace and tranquility, which are indispensable conditions to be a sovereign, independent, Socialist, democratic, prosperous and sustainable nation. The Cuban society is undergoing a process to update its Socialist economic and social development model. In April 2016, the 7th Congress of the Cuban Communist Party (PCC) discussed and adopted the Conceptualization of the Cuban Socialist Model for Social and Economic Development, the Basis of the National Economic and Social Development Plan up to 2030 (PNDES): Vision of the Nation, Axes and Strategic Sectors; and the 2016-2021 Guidelines of the Economic and Social Policy of the Party and the Revolution. These documents were submitted to a wide popular consultation process and later adopted by the National Assembly of the Peoples' Power on June 1, 2017. The above mentioned documents are decisive for the sustainability and prosperity of the Cuban nation, education and instilment of values, health, science, technology and innovation, culture, social communication, national defense and security, rational use and protection of resources and the environment, and sustainable and inclusive urban development, fully in line with the objectives and goals of the 2030 Agenda for Sustainable Development. Regarding SDG 8: "Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all", the Ministry of Labor and Social Security (MTSS) is the Central Administration of the State (OACE) in charge of proposing, leading and controlling the labor policy of the State and the Government and, together with the labor divisions subordinated to local administrations, regulates and control all matters within its purview. It also coordinates and cooperates in issues of common interest. This policy is strengthened with the strategy approved by the Government in the Employment, Salary and Social Security Program and in the 2030 PNDES, which guarantees quality productive employment and articulates vocational training and job placement under safe working conditions, emphasizing on youth and women. There is full employment with an unemployment rate lower than 1.2% (MTSS, CUBA, 2020). Job placement of persons available for employment is promoted. It is estimated that by the end of 2019, 4,515,200 persons were employed in the economy, 3,079,500 in the state sector and 1,435,700 in the non-state sector (MTSS, CUBA, 2020). The budgetary sector employs 1,478,200 workers (48%), with health and education as the most representative sectors with 800,000 workers. The business sector has 1,601,300 workers (52%), mainly in agriculture and husbandry, sugar industry, manufacturing industry, and construction. The self-employed sector has been increasing steadily from 157,000 to 621,268 persons as of October 2019, representing 13% of the total number of employed persons in the

country, thus confirming its validity as a source of employment (MTSS, CUBA, 2020). Remote work and telework: This is measure that has been in place since September 2019, and is an employment modality that has become a standard practice. Full salary remuneration to workers who continued working in their working centers or from their homes. Relocation of workers without work content in other activities aimed at fighting the pandemic in their territories like active screening or food production. Full salary remuneration for the first month, to those workers that were not relocated, and 60% salary remuneration for the following months during the duration of the exceptional conditions. Pay for performance in the business sector, provided the situation allows. Only otherwise, workers will be paid the minimum wage. Workers who due to the pandemic have not been able to return to the country and whose three-month unpaid leave is overdue, shall directly inform the management of their work center or through their relatives and will not lose their jobs. Workers hospitalized due to Covid-19, shall receive 50% of the average salary of the last months, and if at home, they will get 60%. Self-employed workers and non-agricultural cooperatives that temporarily suspend their business activities by their own decision or in compliance of governmental measures shall be exempted from paying taxes. If they are located in a touristic region and continue providing services, they shall only pay 50% of their contributions. Postponement of social security contribution while the situation persists. Remuneration of hired personnel who continue working even with reduced levels of activities, in accordance with the time worked, but never less than what is provided in the Labor Code.

- **Strengthen the informal economy**

Transition towards formal economy contributes to the achievement of SDG 8: “Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.” It also has a significant impact on the attainment of other objectives and related goals (1, 5, 10, and 16), through increased income from work and the expansion of social security coverage, gender-sensitive employment policies that favor the economic empowerment of women with a gender, social and economic inclusion, and greater respect for the rule of law. Transition from informal to formal economy requires the creation of decent jobs in the formal economy, as well as the coherence of macroeconomic, employment, social protection policies and other related social policies. In recent years, there has been an expansion in non-state productive forms with a positive impact on efficiency and macroeconomic balances, better use of productive capacities, and better remunerated jobs. This has allowed the inclusion of the informal sector and the expansion of the tax base and the contributions from the non-state sector. In order to increase quality jobs for workers, including those employed in the informal sector, actions and strategies are being implemented in the country to promote formal employment at the national, sectorial and territorial levels, which also include vocational training and apprenticeship. At the national level and as part of the National Economic and Social Development Plan up to 2030 (PNDES), a strategy is being promoted in order to guarantee the creation of quality productive jobs in strategic sectors supported by investment and job training processes. Both state and non-state forms of management are combined under an integrated vision. The promotion of different forms of productive organization and ownership to supplement the supply of the State is envisaged, as well as the expansion of the role of the territory in generating employment and income to increase occupational integration, with a positive impact on those territories where the highest unemployment rates –particularly among women– are observed. The production sector of rural and suburban areas is being diversified in order to generate attractive jobs for the labor force. As part of the employment policy, working conditions are improved: individual working tools, protection gear, locations, support services for maternity care and other reproductive activities, with gender-and-disability sensitive budgeting.

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1.2.2. Sustainable Prosperity for All

- **Diversify of the urban economy and promote cultural and creative industries**

Cultural is a vehicle to project wealth and a driver of economic growth that seeks to create opportunities for personal fulfillment in the population. It is a dimension of citizenship and a basic element for social cohesion and inclusion. It generates confidence and self-esteem in the individual and a sense of belonging and unity in the communities. Creative economy is an opportunity for innovation, creation of jobs, especially for the youth. The cultural industry is a complement to diversify the tourist offer (cultural tourism); contributes to local development and to relaunch the image of the country. It also represents a means to capture foreign currency and diversify the country's economy (Conservador de Trinidad). The city of Holguin shows progress in this regard. It is building local capacities in creative industries and increasing local opportunities to develop the music industry through the "Music Industry within the creative sector: Current potentials in Cuba and local capacities for its development" Workshop, sponsored by the "Touristic value of the Cultural Heritage in the Holguin Municipality" Initiative, with the contribution of the Empresa de Servicios al Arte. Sports competitions take place organized by National Institute of Sport and Recreation (INDER) and fashion shows organized by the Fondo Cubano de Bienes Culturales. The Marqueta Square hosts the most important cultural events of the province such as the Book Fair and tours of national artists. Activities to promote other local development projects are also carried out, as well as handicraft fairs and exhibition of typical dishes. This is a national reference project (PADIT, CUBA, 2019) (Cubarte Newspaper, 2019). The main focus of the short, medium and long-term development strategy of the nation is the development of exports. Boosting exports demands a significant effort in coordinating macro, meso and microeconomic policies, particularly between sectorial and entrepreneurial policies, in close coordination with local development goals. The export of professional services is foreseen as playing a more dynamic role in rapid income generation, capable of adapting to the changing scenarios and with great potential for becoming a market with a permanent demand. The exportable items providing the highest incomes are in the following areas: health, information technologies, design, telecommunications, construction and civil engineering, tourism, education, culture and creative industries, among others. As part of an integral strategy, the export of professional services is increased with a value chain approach and linked to those sectors in which the country has great export potentials and international prestige. Linkages with driving sectors and determining the supply of goods that complement services provided is also a fundamental axes of the development strategy in the quest for greater collective efficiency. The involvement of the different sectors is fostered and interaction between economy, culture and technology is also promoted, with a significant impact on income and the domestic market, imposing a transformation of export models in all sectors. Boosting productivity and innovation in services is achieved by introducing scientific research findings, innovation and technological transfer, making better use of information technologies and consolidating alliances with universities and educational and scientific institutions that allow delivering services remotely and wider use of technological solutions. Cultural services, in particular, reflect the customs and traditions of a country and the results of training artists of great international prestige. With the auspices of several companies, exportable services will be diversified in different art and cultural manifestations such as music, dance, drama, plastic arts, literature and popular festivities, under the guidance of professional organizations with decades of experience. Programs and business lines that are being encouraged and consolidated are, among others, the following: contracting high-profile music groups and highlevel musicians for recordings, international artistic projects and dance and musical shows, musical shows and specialized technical audio and lighting services; circus performances; training of circus performers; sending creators and professors or training students in Cuba; digital sale of Cuban literature; subscription to the "Cartelera" (Cartelera Artex Magazine) (Cartelera Magazine) magazine and advertisement services; s to be published; digital sale of books (E-books) (Virtual Librery) in foreign platforms, the routes of art and others. The program for the development of the Cultural and Creative Industries (ICC) in Cuba has been consolidated, expanding the capacities of these industries to support artistic and literary creations and increasing

the production, reproduction, promotion, dissemination and commercialization of cultural services. In this field, the country has enough raw material for the production of cultural goods and services, and great potentials with the integration of design, cultural and entertainment industries, fashion, locations, performing arts, audiovisual communication, among others, which have an impact on the development of the tourist industry (Juventud Rebelde Newspaper, 2019) (Prensa Latina).

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

In the updated economic and social model, the entrepreneurial system interacts in the interest of social and economic development and generates wealth and wellbeing for all the cities. At the national and local levels, governments foster entrepreneurial development and initiatives contribute to greater economic and social cohesion, with a high civic sense. The entrepreneurial system plays a key role in the diversification and increase of production, the reduction of imports, the increase of exports to the international market, and the generation of production chains. As part of the update of the Cuban economic model, the Socialist state enterprise has been the object of transformations seeking greater management autonomy and the elimination of obstacles and planning problems, as well as the better possibilities of generating income and development. Following are some of the measures implemented: Allow enterprises, whether or not operating with closed schemes, to retain totally or in part the income in foreign currency obtained due to over-fulfillment of exports planned and define the mechanism for its implementation. Promote pre-financing of productions and investments by national entities and identify the potentials for a first stage. Allow enterprises producing for exports to directly request financial or commercial credits, foreseen in the Economy Plan, and take on the responsibility of its reimbursement. This should involve the Banking System and the mechanism for its implementation must be defined. Apply the system of relations between state enterprises, 100% Cuban trading companies and foreign investment modalities, with the Mariel Special Development Zone (ZEDM), allowing enterprises to retain 50% of the foreign currency from trading operations with such entities. Eliminate the restrictions regarding business relations between enterprises and non-state management forms, establishing the conditions of using bank accounts and prior approval by the highest collegiate management body at the corresponding level (enterprise or base business unit), use petty cash as stipulated and put in place regulation procedures for the above. Ease regulations and promote the authority of the Higher Business Management Organization (OSDE) to modify the plan of member enterprises, provided it does not detract from indicators adopted by the organization. Gradually ease the approval of payment systems up to the enterprise level and determine which enterprises are eligible for exercising such authority.

- **Develop urban-rural linkages to maximize productivity**

Cuba's territorial planning policy seeks to encourage local development based on a country strategy, in order to strengthen sustainable municipalities with the necessary authority and a sound economic and productive base and reduce municipality imbalances so they may harness their potentials. Local development is defined as an essentially endogenous, participatory and innovative process that articulates the interests of stakeholders, territories and levels (municipal, provincial, and sectorial/national.) It is based on the leadership of municipal and provincial governments to manage their development strategies. The Municipal Development Strategy (MDS) is an integrating instrument that contributes to guide the work of the municipal government to address the priorities define don the basis of national and local interests. The MDS articulates the diagnosis and projections defined by other planning instruments, mainly the urban and territorial planning plans. The methodological guide for municipal development design and management establishes the guidelines for the formulation, implementation, monitoring and evaluation of the MDS. In the first case, the idea is to know the development plans of enterprises and entities subordinated to other scales and the territory's commitments. But, above all, it is necessary to identify what can be obtained from them in terms of technologies, specialized human resources, installed capacities, financing and production residue or waste that can serve as input for other production or services of a local nature, among other things. In the second case, the idea is to identify the endogenous potentials the municipality can mobilize through different means and ways in connection with local based on the concept of "municipal self-sufficiency". In this regard, potential cooperation and complementarity actions between municipalities and local levels should be considered. Likewise, it should be recognized that the municipality is made up by urban and rural areas, each having their own characteristics, different degrees of population concentration or dispersion, different urban or agrarian culture, different levels of industrial activity and specialized services. A successful project in an urban area could be inappropriate for a rural area and have a boomerang effect and vice-versa. All in all, the objective is for the municipality to work for: Strengthening its institution by developing integrating and innovative styles and methods and building its capacity to plan its development. Ensuring the fulfillment of local commitments with the supra-municipal economy while prioritizing the revival of the local economy, harnessing the productive and service potentials of both the state and non-state sectors as well as synergies that could arise out of their joint action. Contributing to the development of a local management system with the strategic perspective of vertical/sectorial and horizontal/territorial articulation, favoring a comprehensive development vision rather than isolated projects and actions. Prioritizing people's involvement in and control of all the stages of the process: design, implementation, monitoring, evaluation and update. Identifying and enhancing human resources required for the development of the municipality; encouraging the revival of trades and harnessing of popular knowledge. Incorporating population, equity and sustainability crosscutting approaches; Tapping the scientific and technological findings and promoting innovation as drivers. The diversity of municipalities in terms of their geography, territorial extension, population size, productive vocation, hierarchy or historical evolution, among other factors, demands specific treatment. Human settlements have always been at the center of physical planning in Cuba. Under this approach, human settlements are structured in a system capable of meeting the material and spiritual needs of the population, irrespective of the size of the place of residence by fostering interrelation between the settlements, production and service networks, which ensure adequate environmental conditions. Planning the human settlement system fosters territorial transformation processes to ensure an adequate social development in line with their economic base and environmental characteristics, resulting from the management of the corresponding subsystems, taking into account the territorial policies defined at the national level. In this regard, an analysis of the territorial function of human settlements has been conducted and proposals for their transformation and development have been drafted based on the National Scheme of Territorial Planning (ENOT), which foresees that the stability of the human settlement system will be maintained, with a population pattern in which the population distribution in 86 municipalities (51.2% of the total) show that 80% of the population resides in the head or between the head and the base urban settlements, implying a high concentration of population in very few

human settlements (Figures 13 and 14). The National Economic and Social Development Plan up to 2030 (PNDES) conceives the strengthening of cities and urban settlements with different hierarchies set up in regional nodes thus fostering territorial cooperation and complementarity among municipalities with similar economies in order to increase the beneficial impact that more advanced territories have on the development of other surrounding territories. These processes should be implemented in key strategic activities for the productive transformation of the country and its insertion in the international market, so as to harness this opportunity framework to develop territorial potentials and capacities more effectively. Regarding inter-municipal cooperation, the provincial level will be in charge of coordinating and facilitating the relationship between municipalities for their development, particularly local development projects, harnessing existing international cooperation projects aimed at increasing local development management capacities such as the Articulated Platform for Integral Territorial Development (PADIT) and International Cooperation Project: Building Municipal Capacities for Local Development (Prodel), being implemented in over 30 municipalities and having achieved a good level of progress and from where good practices can be shared. The country has a road surface index that guarantees 6,294 km (MITRANS, CUBA, 2017) of urban-rural linkages and communication. The lower the index value, the lower the road infrastructure capacity, also construed as areas with relatively saturated road networks. As a result of the foregoing, the following classification has been established (Figure 15): Areas with saturated infrastructure, those with the lowest values. Areas with a relatively saturated infrastructure, with mid-level values. Areas with no road saturation, higher values.

1.3.1. Resilience, Mitigation and Adaptation of Cities and Human Settlements

- **Minimize urban sprawl and loss of biodiversity resulting from it**

The National Economic and Social Development Plan up to 2030 (PNDES) foresees the upgrading of the Civil Defense system and implementing integral risk management, making better use of science and technology and training and increasing the involvement of communities, entities, local governments and the population as a whole. This will reduce vulnerability and minimize the damages, prioritizing coastal human settlements threatened by the rise of the mean sea level. This will also enable a better economic evaluation of disaster impacts and the costs of climate change adaptation, as well as a speedy and organized recovery of the affected areas and populations. To this end, SDG disaster impact reduction indicators and goals are being updated, in accordance with the 2015-2030 Sendai Framework for Disaster Risk Reduction. The Cuban Civil Defense System is characterized by its humanist vocation, preventive and protective nature and integral approach. Disaster risk management is a process that entails capacity building to implement operative and interrelated actions by state entities, local governments, and the society as a whole. The most outstanding actions are: Reduction of society's vulnerabilities in all its dimensions (physical, environmental, economic, social, educational, and organizational), as a result of the political will of the Cuban State and the involvement of all citizens; Strengthening of the 15 surveillance and early warning systems (EWS) which includes: surveillance and forecast; risk evaluation and decision-making; dissemination of warnings, alerts, messages, public information and orientation; timely protection measures for persons, material and natural resources with operational procedures; Hazard, Vulnerability and Risk studies (HVR); the protection of persons, economic resources and infrastructures using Disaster Risk Reduction Plans (DRRPs), and dissemination of warnings and instructions to entities, local governments and communities. Update of DRRPs by local governments and relevant entities, in accordance with existing legislation (Decree-Law No. 170 on the "Civil Defense Measures System" of May 8, 1997). Prevention of future risks by reconciling economic and social development with Civil Defense interests, in accordance with existing legislation (Decree No. 327 "Regulation of the Investment Process" of October 11, 2014). Planning resources to reduce vulnerabilities; building national and local capacities, prior to and during the post-disaster stage and according to the country's possibilities; and more efficiency in the industrial security and biosecurity systems. Cleaning of rivers, ditches, and Canals; pruning and felling of trees or replacement with more resilient species; stability in waste collection and disposal. Moving the Disaster Risk Reduction Management Center (CGRRD) or multidisciplinary commission if there is no such center to a secure place, with qualified personnel and adequate equipment and technology, in order to support the local government in actions such as prevention to reduce vulnerabilities, response and recovery; use the information system jointly established with the National Statistical and Information Office (ONEI); training steering bodies, specialized forces and the population; establish Early Warning stations in vulnerable communities; participation in HVR studies, and update of DRRPs (Figure 16). Urban morphology studies recognize the existence of spontaneous or spread out urbanizations with an incipient road layout that can be regularized; irregular plots of different dimensions occupied by 19th and 20th-century houses, unbuilt or partially built areas, irregular layout, non-aligned buildings grouped along main streets and generally associated with peri-urban areas and precarious and informal neighborhoods and slums. Migrant flows between hierarchy settlements in the last five years reveal that the highest flows, in absolute value, take place from lower hierarchy settlements to more urbanized settlements or higher hierarchy settlements (rural, strata, the other urban areas, and cities with 50,000+ inhabitants). The National Migration Survey plans to divide the country in strata (Havana or capital city, cities with 50,000 and over inhabitants, the urban rest, and the rural stratum). In the capital strata alone, data shows that the most populated other urban areas strata is not only the primary source of migrant flow towards Havana (10,028 in-migrants) but also receives the highest number of migrants from Havana (3,090 out-migrants.) An analysis of recent migrant flows between strata categories shows that 80% are urban-to-urban migration. A recent study in internal migration in category groups of cities in Latin American countries reveals

that out of the 14,400,000 migrants captured in the 2010 Census round, 11,200,000, i.e., 78%, are city in-migrants and 10,600,000, i.e., 73.5% are city out-migrants, which means that 3 out of every 4 migrants moved between cities (Vignoli, 2017). The proportions resulting from this research corroborate that urban-to-urban migration is the prevailing migration flow in Cuba. The 2016-2017 National Migration Survey (ENMIG) (CEPDE/ONEI, 2018) found that the highest number of recent migrants between strata is found in the other urban areas, 43%. This is the most populated strata, with the highest number of residents and represents 31% of the total migrants between strata in the country. Havana receives 14% of in-migrants (18,493) and only has 5% of out-migrants (6,204). Internal migration balance in the rural and other urban area strata is negative, as well as for traditional migration. Recent net migration rates are also negative, particularly in the other urban areas strata, where out-migrants move mostly to cities with 50,000+ inhabitants. Recent migration behavior in terms of gender shows a predominance of female migrants, being the total number of female migrants higher than that of male migrants. Recent female net migration in the rural strata is significantly higher than male net migration given the greater migration propensities of women in the rural areas. Such processes in the current century have not generated big urban sprawls with loss of biodiversity, as shown in the ratio of land consumption rate to population growth rate evaluated for the last Census interval. Between 2002 and 2012 there was a reduction in the occupied surface per human settlements in almost all provinces and in the country.

• Implement climate change mitigation and adaptation actions

Cuba has a State Plan (Life Task) (CITMA, CUBA, 2017) in place for climate change adaptation and mitigation. This plan, led by the Ministry of Science, Technology and the Environment (CITMA) was conceived with the actions of all the actor involved at all levels. There is a strong link between the Cuban NUA and the thematic axes on Climate Change and Risks of the Task Life Plan, particularly with Task 8 referring to the implementation and control of climate change adaptation and mitigation measures derived from sectorial policies on renewable energy, energy efficiency, and urban and territorial planning. All this is also linked to the National Economic and Social Development Plan up to 2030 (PNDES), which in its strategic axes Natural Resources and Environment includes Task 11 on increasing energy efficiency and developing renewable energy sources that contribute, among other things, to reduce Greenhouse Gases (GHG) emissions, mitigate climate change and promote low-carbon economic development. This also includes Cuba's international commitments such as the national communications to be submitted every 4 years to the United Nations Framework Convention on Climate Change, the biennial reports on mitigation, the National Inventory of Renewable Energies and GHG, Adaptation and the reports under the Enhanced Transparency Framework in accordance with the 2106 Paris Agreement. Once the Life Task Plan was adopted, the strategic actions to be implemented by the Central Administration of the State (OACEs). The Council of Ministers annually checks the progress being made. The Life Task and Cuban NUA state plans are connected through strategic axes 8 "Climate Change and Risks" and the main results are the following: All 111 coastal human settlements affected by climate change have urban regulations in place, approved as part of the urban planning schemes. Out of these 111 settlements, 35 have been included in the Task Life plan and have the most appropriate adaptation measures in place. All coastal strips affected by mean sea-level rise and severe hydrometeorological events up to the years 2050 and 2100 have been identified in all coastal human settlements, and specific regulations are in place. The Physical Planning divisions of the provincial and municipal administrations of the prioritized areas have conducted studies and developed specific urban regulations for coastal human settlements. Regarding the long-term impact of climate change for Cuba, research was conducted through Project 8: In-depth study of climate change vulnerabilities in coastal human settlements and other areas up to 2050 and 2100 indicate that the land surface that will be permanently underwater by 2050 is estimated in 2,691.47 square kilometers of the land surface (2.4%); figure that will increase to 6,371.05 square kilometers (5.8%) of the total surface by the year 2100. It is estimated that by 2050, the surface of 14 rural settlements will have disappeared and the surface of another 96 human settlements of varying categories will be partially affected. 41,310 inhabitants will be relocated or protected. By 2100, with a foreseen rise of 0.85 meters of the mean sea-level, another 6 human settlements will be totally affected, The NUA is important in this effort, since it will contribute to improve urban regulations for coastal human settlements affected. The Life Task Plan identifies those coastal areas where life preservation actions are required in vulnerable areas. Provincial administrations have developed different mitigation actions (Figures 17, 18, and 19). The Antonio Núñez Jiménez Foundation of Nature and Man (FANJ) also contributes and facilitate community training and awareness-raising processes in adaptation to climate change impacts in different communities. On the other hand, LabSDG (MEP, CUBA) implements the restoration and improvement of coastal zone initiative. Maintaining the coastal area unoccupied. It is a Platform led by the Ministry of Economy and Planning for the integrated management of the 2030 Agenda and the 2030 PNDES and includes 300 initiatives, 44 institutions, 4 Provinces (Pinar del Río, Cienfuegos, Sancti Spíritus, and Artemisa). In 2017, as a contribution to the Hurricane Matthew recovery stage, the FANJ carried out in the city of Baracoa the Ecological Alert "Hábitat y Huracanes S.O.S". Nearly 50 representatives attended the event, which was co-sponsored by IPF, UN-Habitat, the Government of Baracoa, Project Habitat 2, and COSUDE. The following proposals were put forward: Identify current gaps and opportunities to increase the resilience of human settlements to disasters. Share the institutional stand and regulations that supports and regulates housing construction and rehabilitation in Cuba. Propose and visibilize concrete actions in the Baracoa municipality, within the Hurricane Matthew recovery stage, aimed at building local recovery capacities. With the support of

Canada Fund for Local Initiatives and in collaboration with the International Committee for the Development of Peoples of Italy, the Proposal for an Early Recovery in Communities in the Alejandro de Humboldt National Park Project was implemented in communities affected by Hurricane Matthew. Main results of the Project: The recovery and increase of agricultural production in family farming. Field training on resilient productive systems and tools for 100 households who lost their crops.

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

Disaster risk reduction strategies in line with the 2015-2030 Sendai Framework for Disaster Risk Reduction, have been adopted and implemented in Cuba through regulation instruments for many years now. In this regard, actions are implemented at different levels to reduce vulnerabilities of persons and their belongings and of economic resources by reducing the degree of exposure to hazards, adequate management of soils, environment and climate change adaptation, the development and strengthening –according to the country’s possibilities– of effective early warning systems to face hazards; all this combined with quality training of decision-makers, key actors and population as a whole. Since several years now, all local governments in Cuba have adopted and implement disaster risk reduction strategies in line with national strategies, as well as Hazard, Vulnerability and Risk (HVR) studies developed by all provinces and municipalities, under the guidance of the Environment Agency (AMA) of the Ministry of Science, Technology and the Environment (CITMA), an irreplaceable tool for preparedness in the wake of climate change impacts and meteorological events. The Cuban Civil Defense is a nationwide system comprising state organs and organisms, entities, social organizations and the population. Its mission is to protect persons and their properties, social infrastructures, the economy and natural resources against natural or man-made disasters and the consequences of climate change impacts and wars. It is defined as the implementation, organization and fulfillment of actions and measures aimed at reducing disasters, the results of which are shown in the behavior of the following SDG 11 indicators. Regarding indicator 11.5.1 Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 populations, in 2015 no deaths or missing persons were reported. In 2016, Hurricane Matthew –a category 4 hurricane– hit the province of Guantanamo and part of the province of Holguin, while threatening Santiago de Cuba, reason for which a total of 1,373,595 persons were protected and no deaths or missing persons directly attributed to the disaster were reported. In 2017, Hurricane Irma –a category 5 hurricane– affected 13 provinces, from Camaguey to Artemisa, and the value of the indicator was 0.09 deaths directly attributed to the disaster. Same indicator value was obtained with Subtropical Storm Alberto in October 2017. Hurricane Michael in October 18 reported no deaths or missing persons. In 2019, a line of storms in the Gulf of Mexico affected the Western part of the country and an EF-4 tornado in the Moderate Fujita Scale EF-0 to EF-5, hit a 20 by 0.7 kilometer strip across five municipalities in Havana, the capital of the country, causing severe damages to houses, facilities of production and service entities and infrastructures, with an indicator value of 0.0356 deaths directly attributed to disasters per 100,000 populations. Regarding indicator 11.5.1 Number of directly affected persons attributed to disasters per 100,000 inhabitants, in 2015 no directly affected persons were reported. As a result of Hurricane Matthew in 2016, the indicator was 1,246.7 directly affected persons attributed to disasters per 100,000 inhabitants. With Hurricane Irma in 2017, the indicator was 4,797.5 directly affected persons. Subtropical Storm Alberto, also in 2017, left an indicator of 135.94 directly affected persons. In 2018, Hurricane Michael hit part of the Western region of the country, leaving 66.5 directly affected persons. In 2019, the storms and the EF-4 category tornado left 233.1 directly affected persons. Indicator 11.5.2., Direct economic loss in relation to global Gross Domestic Product (GDP) attributed to disasters, must be estimated with metadata contributed by Ministry of Economy and Planning (MEP), Ministry of Foreign Trade and Investment (MINCEX), Ministry of Finance and Prices (MFP), and Central Bank of Cuba (BCC) to National Statistical and Information Office (ONEI). Direct economic losses attributed to disasters must be defined and should include: agricultural losses, loss of all other production goods damaged or destroyed, losses in the housing sector; losses due to damaged or destroyed vital infrastructures; and the losses due to damaged or destroyed cultural heritage. In the case of Cuba, primary direct economic losses attributed to disasters are found in the housing and agricultural sectors. In our country, national GDP is expressed at current prices. No direct economic loss attributed to disasters was reported in 2015. In 2016, with Hurricane Matthew, direct economic losses amounted to 0.027% of the national GDP at current prices. In 2017, with Hurricane Irma, the value of the indicator was 0.136% of the national GDP at current prices. There is no information available to determine the indicator of direct economic losses attributed to disasters in relation the national GDP at current prices in the

case of Subtropical Storm Alberto in 2017, Hurricane Michael in 2018, and the storms and E-4 category tornado in 2019. To reconcile the information collected, a new indicator: Number of Disaster Risk Reduction Management Center (DRRMCs) should be included. The DRRMC is defined as a safe physical space with modular equipment and adequate technologies and qualified personnel to support local governments in: decision-making and disaster management processes; monitoring vulnerability reduction; fostering a disaster reduction culture in key actors and sectors as well as in the population as a whole; promoting training and involvement of persons in disaster preparedness, response and recovery, with the main purpose of avoiding the loss of human lives and economic goods and contributing to improve the quality of life and local sustainable development. Likewise, the DRRMC contributes to strengthen disaster risk communication management at different levels; provide quality information; and facilitate access, compilation and timely transmission of information to all concerned persons and entities. To this end, several tools, provisions, gender-sensitive and inclusive policy documents on disaster risk reduction are adopted and implemented (FACTSHEET 19).

• Build urban resilience through quality infrastructure and spatial planning

The passage of Hurricane Sandy through Santiago de Cuba in October 2012 prompted an analysis on urban resilience in our country, particularly in terms of big cities. It spurred the question of what would happen in Havana with a similar event or in Santiago de Cuba in the case of a severe earthquake. With this background, the Cuban government, together with UNDP, formulated in 2015 a cooperation project entitled “Contributing to build urban resilience in Cuba’s main cities: Havana, Bayamo, and Santiago de Cuba.” The project was conceived to build urban planning and management capacities –mainly of institutions en actors of the selected cities–, as well as to reduce disaster risks. The Physical Planning Institute (IPF) was designated as the coordinator, with the participation of other institutions such as National Civil Defense Staff (EMNDC), Environmental Agency (AMA), Ministry of Construction (MICONS) with the General Housing Division and The Construction Materials Division, and the Eastern University. Cuba shows several results in terms of urban resilience, most notably among them: - Improved capacities of national institutions for legal instruments and policies regarding validation and publication of: a) Manuals, survey means and Urban Land Registry software; b) Manuals and means to diagnose the status of the housing stock; c) Methodology for updating urban regulations. - Strengthened capacities of the municipal Physical Planning Offices to develop an Urban Cadastre and Urban Control with IT resources and technical training; - Updated urban planning and management tools of local governments to increase urban resilience, among them the main urban management and disaster risk reduction instruments such as: a) Urban Planning General Plan (PGOU) of the city of Santiago de Cuba and Urban Regulations for the cities of Santiago de Cuba and Bayamo, and the Guanabacoa and Centro Habana municipalities in the capital of the city, all of them with a resilience approach; b) Hazard, Vulnerability and Risk (HVR) studies for earthquakes, floods due to heavy rainfall and string winds in the cities of Santiago de Cuba and Bayamo. - The fundamental dimensions of gender equality have been incorporated into the instruments of the strategy to increase urban resilience and gender-sensitive local urban management and disaster risk reduction tools in the cities of Santiago de Cuba and Bayamo; - Revival of capacities for the local production of construction material and its productive chain, in accordance with the characteristics of each territory; - A Technical Manual on Urban Resilience was developed, with different contents to train technicians and local government officials to increase resilience in our cities and measure the results; - A “Dodecalogue for Urban Resilience” for the cities of Cuba was published, providing local governments and decision-makers with a tool to check progress being made in their respective territories; - A graphic of interrelations between instruments and national institutions to increase urban resilience in Cuba was drafted and documented, and the mechanisms that should be in place for adequate flow of resilience-related information in order to avoid duplicity of work and efforts were validated; - A system of indicators to measure urban resilience was developed and a pilot diagnosis was carried out in selected areas of the cities involved, based on those identified by the “Making Cities Resilient” Campaign of UNISDR and UN-Habitat and the experiences of the Bureau for Crisis Prevention and Recovery (BCPR) and the UNDP. - Indicators of existing planning and management instruments were updated. The theoretical construction cost of a human settlement was determined by developing 4 variants of 100-house settlements according to the construction typologies, in order to estimate the cost of relocating houses in coastal areas to safer localities in higher areas within the same coastal settlement or in more distant localities. Urbanization elements account fo 60% of the total investment, according to samples of investment process for new urbanizations in the country requested. Challenges In 2015 there were 92 Disaster Risk Reduction Management Center (DRRMCs), 10 of which were at the provincial level and 82 at the municipal level. At the end of 2019, there were 124 DRRMCs, disaggregated in 12 provincial DRRMCs and 112 municipal DRRMCs. The current challenge is to complete the number of DRRMCs needed to cover the 15 provinces and 168 municipalities, for a total of 183. Collaboration between national and local entities, together with intersectorial articulation and strengthened urban development management capacities contribute to advance the implementation of the Life Task and NUA plans. To this end, it is necessary to expand communication through the mass media, in order to guarantee a speedy, effective and continuous participatory process (institutions and

citizens.) Given the foreseen climate change impacts in Cuba, efforts are being made to find solutions well in advance to address a process that will irrevocably affect coastal human settlements located in very plain areas, generally reclaimed swampy areas. Undoubtedly, urban planning contributes to a more efficient disaster management and urban resilience. In this regard, and despite progress achieved, efforts should continue to increase urban planning effectiveness in order to:

- Strengthen municipal institutional capacities.
- Improve intersectorial coordination at the local level.
- Insist in recovering urban discipline both on the part of the population and public entities.
- Maintain a high level of technical training among the personnel in this field.

The process of developing and updating urban planning schemes is fundamental to achieve urban resilience. These schemes require the integration of and articulation with studies conducted in different sectors and local institutions so as to develop the technical content of such schemes. Given the fact that disasters are events of a complex nature, a multidisciplinary vision is required, where the involvement and contribution of different experts and institutions provide critical elements to study such events and assess the risks.

1.3.2. Sustainable Management and Use of Natural Resources

- **Strengthen the sustainable management of natural resources in urban areas**

Territorial and urban planning, the urbanism, and development planning in general have provided a new perspective of environmental actions and natural resources, moving towards a stage of converging interests in which their preservation and rehabilitation have become the center of proposals for organizing rural and urban spaces in order to improve the current status of these limited resources. Actions required for the adequate development of human settlements should be listed before any land use expansion takes place. In the case of Cuba, reducing the occupation of spaces for urbanization purposes is an increasing demand and inward growth of cities is a principle demanded in planning. The use of high and very high agricultural productivity soils for urbanization purposes is also prohibited, as part of the actions to protect this resource. Preservation of resources is also reflected in the methodological instructions for planning; in the land use proposals and the protection of underground aquifers, which to a great extent guarantee the water supply to human settlements. An example of this is that territories that within the urbanized area and its outskirts occupy the Almendares-Vento underground basin in Havana, in charge of supplying water to great part of the city, are protected by urban regulations. Such regulations are an example of the protection of water resources by stipulating the intention of leaving large spaces unbuilt, in order to improve rainfall water infiltration into the aquifers; the elimination and prohibition of swine breeding grounds due to their highly pollutant nature or the obligation to treat industrial waste and compulsory implementation of sanitary solutions for houses and urbanizations that were inadequately built in these territories. The NUA contributes to sustainable development and the preservation of natural resources, as observed in the strict process of solutions provided by establishing the functional areas of human settlements and cities according to their hierarchy and in line with the principle of protecting the natural resources of the locality and inserting in the urban pattern the use of those that can provide cognitive elements to the population or protect nearby areas classified as protected areas due to the exceptional nature of their landscapes and biodiversity components, keeping them free of impacts. Likewise, the protection that the development of urban planning schemes and territorial management imply, through micro localization of the investment in order to preserve the environment. Also the exclusion of mining site areas as surfaces to be used for the development of cities and the preservation of the air quality by placing polluting facilities on the leeward side and the obligation of having treatment solutions in place and reducing emission in the atmosphere. The inclusion of green areas in the cities, with different varieties and possibilities of expansion according to the nature of the locality, is an element that favors social interaction, contributes to reduce dust, the generation of oxygen and the capture of CO₂ present in the gases released by the transportation sector, the industries and the high consumption of energy by the population itself for cooking food. Likewise, they provide shadow and less extreme temperatures during daytime, providing more comfort to the inhabitants. In this regard, the implementation of solutions for sewage disposal and other pollutants that end up in the drainage and sewerage system that crosses the city treated prior its final disposal, can be pointed out as another priority in the organization of human settlements and cities. Efforts and investments made guarantee their implementation and the reduction of pollutant loads in rivers and the sea. Natural forests, like mangroves, are preserved since they constitute a natural barrier that protects land and urbanizations from waves generated by extreme weather events. More recently it has been considered that their consolidation can become a natural barrier against the expected impact of the rising mean sea-level due to the effects of climate change. In conclusion, every step within the scope of cities to assimilate the territory is subject to regulations and scientific evaluations, in order to reconcile urbanization with nature, a responsible process in the sustainable use of natural resources.

- **Drive resource conservation and waste reduction, reuse, and recycling**

Plans to reduce pollution include recycling of solid waste for production with higher value added and to reduce imports. Cuba implements a recycling policy endorsed by Law 1288 of 1975, the first, third and fifth articles of which stipulate the obligation of all Central Administration of the State (OACE) to collect raw material and product waste as well as reusable material for their recovery. As the leading agency, Ministry of Public Health (MINSAP) promotes the sustainable management of solid waste in the implementation of urban and territorial planning plans by reducing its generation, and promoting its reuse, recycling and appreciation.

• **Implement environmentally sound management of water resources and urban coastal areas**

The country has a water sanitary surveillance plan in place to monitor drinking water and water for other uses and to conduct state sanitary inspections, with emphasis on drinking water. The Life Task plan includes some actions related to the reduction of marine pollution: - Identify and carry out actions and projects for the protection of city coasts, relocation of human settlements, full recovery of beaches, mangroves and other protective natural ecosystems, water and coastal engineering works, among others; - Direct reforestation efforts to the recovery most affected mangroves. Prioritize dams, canals and hydro-regulatory boundaries of tributary basins of the main bays and coasts of the insular shell; - Halt the deterioration of and rehabilitate and preserve coral reefs throughout the archipelagos, prioritizing ridges along the island Shell; - Prevent the overfishing of fishes that benefit coral reefs; - Rehabilitate dikes in order to avoid the salinization of fresh waters in the coastal area. An example of this is the research project on the evaluation of the impact of acidification of oceans on seafood. An increasing number of studies indicate possible negative footprints in marine organisms. Cuba is a member of the Marine Coastal Stressors Research Network for Latin America and the Caribbean (REMARCO) the objective of which is for its findings to become a scientific basis for the adoption of environmental decisions. The country established the National and Regional Observatory to this end and has built capacities to quantify the damage and taken action to reduce it. As a result of the damage accumulated in the main natural elements of coastal protection, namely, sandy beaches, wetlands (swamp forests and meadows, and mangroves) and coral reef ridges, which jointly buffer the impact of the waves caused by extreme meteorological events, 82% of Cuban sandy beaches present signs of erosion. The rate of receding coastline has been estimated to be 1.2 meters on annual average. The disappearance of 10 sandy beaches due to the combined action of man and the destructive impact of waves during hurricanes and other events is ratified. It has been acknowledged that mangroves are present in more than 50% of the Cuban coasts and it has been ratified that the most affected areas are located in the south coastal strip of the provinces of Artemisa and Mayabeque, and from Gibara to Moa Bay in Holguin. Seventy per cent of coral reef ridges show a high degree of deterioration and is estimated that its protective capacity will not exceed more than 30 years approximately. It was confirmed that in the last 50 years, coastal waters west off the Havana coastline and in the Santiago de Cuba Bay, have become more acid. Based on a future climate with fewer rainfalls, higher temperatures and the occurrence of droughts, studies forecast for 2100 a 37% reduction in the availability of water in relation to the 1961-1990 baselines. Prioritized actions in the north Havana coastline include the sea drive from La Chorra to La Punta, with the absence of protective natural ecosystems that are necessary to recover; the deterioration of coastal ecosystems and the hydro-regulatory boundary bordering rivers and creeks, as well as the deterioration of the protective ecosystems of the Cardenas Bay. Once problems have been identified, a plan of action for their improvement is formulated. In the case of agriculture, the document entitled Addressing Climate Change in the Republic of Cuba, from which the Life Task plan emanated, forecasts that a decrease in the potential yields of certain crops (potato, rice and tobacco) caused by changes in the total cycle duration and the reduction of agricultural areas due to shortage of water for irrigation, salinization, and soil degradation. This leads to a decrease in agricultural production and as an additional consequence, 537,000 hectares of forest and 32,000 hectares for agriculture and husbandry will be affected with sensitive impacts on the agro-productivity of soils and estimated accumulated losses of 40,000 tons in fundamental crops (rice and sugarcane) and other crops (tubers and roots.) The Life Task plan foresees to adapt agricultural and husbandry activities, particularly those with a higher impact on the food security of the country, to changes in the use of land as a result of rising mean sea-level and drought; reduce crop areas near the coast or affected by saline intrusion; diversify crops; improve soil conditions; introduce and develop varieties resistant to the new temperature scenario and direct reforestation for the maximum protection of soils and water, both in quantity and quality. In this period, the Antonio Núñez Jiménez Foundation of Nature and Man (FANJ) has supported community groups in Cojimar and Guanabo in their efforts to become more resilient to climate change. These groups identified the most pressing problems in their

territories and what the households and the community can do to solve some of them. Links with several local institutions and with the Life Task plan were established.

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

In Cuba, the concept of smart cities has been adopted as those that use technological advances as supports and tools to improve the quality of life of its inhabitants and seek a balance between the environment and the consumption of natural resources, which was ratified in the VI National Urban Forum (FUN). Main Cuban cities are studying mobility and are proposing a restructuring of transportation services, both public and private. Sale of travel tickets online is being implemented. Through the Viajando APK for Android phones and tablets 27,764 seats were sold and through the travelling agencies, 55,746 seats were sold, totaling 83,510 seats in a first stage. In small cities, bicycles are used as the main transportation means, as well as animal-drawn vehicles in more rural areas. In 2019 and with a credit granted to Cuba by the Government of the People's Republic of China, the national train service connecting over 60% of main Cuban cities through a fast and high capacity means of transportation was revitalized. Despite economic grievances caused mainly by the economic, commercial and financial blockade imposed to Cuba by the United States for over 60 years, efforts are being made towards a smart economy in the cities, based on local potentials and resources. An example of this is the increase in the number of self-employed workers since the implementation of this modality and the non-agricultural cooperatives providing services in the cities. The use of electronic payments between legal and natural persons is also being expanded, creating more comfort and security among the citizens. Universal and free access of the population to all levels of education and guaranteed different knowledge contents, is ensured. The basic and trade levels required to solve daily problems are acquired through the Schools of Trades and Polytechnic Institutes where more than 100 qualified worker specialties can be studied (builder, carpenters, stylists, etc.) and more than 50 mid-level technicians. Those requiring higher educational levels can do it through pre-degree programs, master degrees and doctors degrees) provided by 50 higher education (universities, institutes and higher education). Services and procedures to both legal and natural persons, on-line follow-up, and electronic payment, are provided in Government portals and Web platforms at all levels. Likewise, accountability meetings of delegates of the Municipal Assembly of the People's Power with their constituencies are held twice a year, a common and legislated practice. Hydro-regulatory boundaries are in rivers and creeks crossing the cities. Noise, liquid waste and atmospheric pollutant sources are identified and programs are developed for their elimination in the short, medium and long term, according to economic possibilities. Facilities for the recollection of raw material (plastics, paper, metal, etc.) are established to encourage recycling. Basic services and water supply to cities are guaranteed, despite the acute drought the country and the abovementioned community services are facing. Law and order as well as public security is an achievement of the Cuban Revolution and is guaranteed by the National Revolutionary Police as guarantor of the people's security and wellbeing. Likewise, cities enjoy a wide range of cultural programs in theaters, movie theaters, video halls, art galleries and many other spaces that reach the lowest scales of the community. Incentives and public spaces for practicing sports as a healthy form of recreation is also noteworthy. Challenges The degradation of soils; impacts on forest cover; pollution; loss of biodiversity and lack of water are among the environmental problems identified in the 2020 Environmental Strategy of the country. The Life Task plan includes among its responsibilities the need, among other things, to protect Cuba's marine coastal waters from pollution; describes the zones, areas and prioritized places identified, their current status, forecast and actions to be undertaken, and identifies some pollution reduction tasks (CITMA, CUBA, 2017). Some of these tasks include actions against deforestation and the pollution of the Guanabo River; halting the deterioration of protective ecosystems of the Cardenas Bay due to pollution and incorrect environmental practices; and the long-term solution of the pollution of the Moa Bay and coastal areas. On the other hand, the greenhouse effect caused by polluting gas emissions in the atmosphere, constitutes a climate change challenge. Sulphur dioxide, carbon dioxide and nitrogen dioxide are detected as pollutants and are monitored and reported as part of the research conducted by Ministry of Science, Technology and the Environment (CITMA). Identify and implement city coast protection actions and projects; relocation of human settlements; full recovery of beaches, mangroves and other protective natural ecosystems; water and coastal engineering works; direct reforestation efforts to the recovery

of most affected mangroves; prioritize dams, canals and hydro-regulatory boundaries of tributary basins of the main bays and coasts of the insular shell; halt the deterioration, rehabilitate and preserve coral reefs throughout the archipelagos, prioritizing the ridges along the island shell; prevent overfishing of fish that benefit coral reefs. All these are actions to reduce pollution in Cuba's marine coastal waters. Implementation of the Life Task plan that defines in its Task No. 1 the need to protect city coasts for the full recovery of beaches, mangroves and other protective natural ecosystems, among others and in Task No 6, the need to halt the deterioration and rehabilitate and preserve coral reefs throughout the archipelagos, prioritizing ridges along the insular shelf that protect urbanized beaches. The ongoing process to improve community services is added to the foregoing.

Part 2: Effective Implementation

2: Effective Implementation

2.1. Building the Urban Governance Structure: Establishing a Supportive Framework

- **Decentralize to enable Subnational and local governments undertake their assigned responsibilities**

The Cuban Socialist Economic and Social Development Model acknowledges the need to grant greater autonomy to provincial and municipal People's Power administrations. Article 167 of the Constitution of the Republic of Cuba, concedes that: "The province has legal personality to all legal purposes and is organized under the law as an intermediate body between the central structures of the State and municipalities, with an extension equivalent to the sum of municipalities comprised within its territorial boundaries, under the leadership of the People's Power Provincial Government". On municipal administrations, Article 168 states that "municipalities are the local society organized under the law, it is the basic political and administrative unit of the national organization; it has separate autonomy and legal personality to all legal purposes, with a territorial extension determined by necessary vicinity, economic and social relations of its population and the interests of the nation, with the objective of meeting local needs. It has its own revenues and receives allocations from the Government of the Republic, depending on the economic and social development of its territory and other State purposes, under the leadership of the Municipal Assemblies of the Peoples' Power (AMPP). Similarly, Article 169 says that: "Municipal autonomy includes the election or designation of its authorities, the power to decide over the use of its resources and the exercise of its relevant competences, as well as adopting agreements and provisions, as required for the discharge of its powers under the Constitution and laws. Autonomy is exercised on the basis of the principles of solidarity, coordination and collaboration with the rest of the country's territories upholding the highest interests of the nation". The legislative timetable (Official Gazette No.2, 2020) has been approved by the National Assembly of the Peoples' Power (ANPP), as well as the laws that provide the constitutional mandate and operation of AMPPs.

• Link urban policies to finance mechanisms and budgets

The State Plan to implement the Cuban NUA, includes three work lines in its Financing Strategic Axes: Promoting the creation of a legal, institutional and fiscal framework for an effective decentralization; building municipal capacities to manage their economy and develop their endogenous resources; and providing a budgetary framework that's clear, transparent and participatory, in order to adapt the legal and financial framework to grant greater competences and capacities to administrations that manage human settlements. In Cuba this comes down to municipalities, while Havana, capital city made up of 15 municipalities, should serve as provincial administration reference, because although decentralizing powers is crucial, maintaining global governance over urban areas is likewise important. Approved urban development plans have a program of action that comprises programs, projects and investments, listing the responsible party, and deadlines on the basis of territorial and national priorities and amounts allocated on the basis of an economic assessment, which allows for the integration of physical and economic planning and estimating the required investment amounts and establishing short, medium and long term priorities. Concerning SDG 11 Target 11.a, Support positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning. This target indicator was amended earlier this year and now provides (11.a.1) Existence of a national urban policy or local development plan that (a) respond to population dynamics; (b) ensure balanced territorial development; and (c) increase local fiscal space. It's a process indicator, it assess and monitors progress as the national urban policy or local development plans are implemented to cover or meet the following criteria: the first qualifier examines up to what extent the urban policy addresses issues linked to population composition, trends and projections to achieve development goals and targets; the second qualifier entails the promotion of a spatially consistent territory that includes a balanced system of human settlements, addressed social, economic, environmental and spatial disparities, particularly considering the urban-rural continuum; the third qualifies refers to the local physical space as the sum of available financial resources to ensure a better provision of basic social and economic services at local level as a result of budgets and related decisions by governments at all levels without undermining the sustainability of the financial position of any government. To maintain objectivity and comparability in policy analysis, five assessment categories for each qualifier were internationally established. These categories respond to a progressive assessment of the measure in which national and local policies integrate elements in their plans that contribute to the realization of each qualifier. If the assessment is within categories 1, 2 and 3, that range from 1 to 50 percentage points, it is not considered to "develop and implement a national urban policy or local development plan". Therefore, efforts must be undertaken to improve their policies and plans. If it falls under categories 4 and 5, i.e. 51 or more percentage points, like in the Cuban case, that has a 51.7 % and falls under category 4, it is considered to "develop and implement a national urban policy or local development plan" that contributes to the achievement of target 11.a.1. As it can be seen in figure 20, actions should be geared at increasing local fiscal space. To that end, policies had been approved like the Territorial Policy and the one for the improvement of the territorial planning and land management system. For their implementation, progress has been made in the creation of tools like the one for development financing developed in the framework of Articulated Platform for Integral Territorial Development (PADIT) (MEP) and the methodology established to determine the cadastral value of urban and rural property, including the value of the land surface, as well as that of the property built on it. Achieving this target that reflects territorial development and impacts the population's wellbeing, motivated the incorporation of five initiatives into the SDGLab: - Design and estimation of the Territorial Development Index (IDT). Implementing its use as a tool for the annual assessment of municipalities' development. This index's monitoring has evinced existing gaps between municipalities, its results have been used in decision-making and to guide national and local public policies. - Improving territorial planning and urban development. A legal framework was created for territorial and urban planning, which mainly seeks to define the most appropriate organization and use of space and organize all human activity in the territory with a perspective vision of development and the integration of its interests; its high social conditioning has turned its instruments into useful

public administration tools. The bill, including its set of rules and three resolutions are undergoing the process of approval. Three initiatives are devoted to the management of territorial and urban planning tools at all levels (national, provincial and municipal), as they are based on the demographic peculiarities of the territory, their potentials and restrictions. Their implementation should lead to the decrease of territorial disparities and improve people's wellbeing: - National Scheme of Territorial Planning (ENOT) management. Control of programs and subprograms to ensure compliance with territorial policies implemented under 5-year and annual economic plans and the investment process. - Management of the Territorial Scheme of Mountain Ranges. Control of programs and subprograms to ensure compliance with territorial policies implemented under 5-year and annual economic plans and the investment process. - Control of the implementation of the urban development plans of Viñales, Havana, Varadero, Cárdenas, Santa Clara, Trinidad, Santiago de Cuba, Baracoa, Guantánamo and Holguín, through the program of actions, investments and urban regulations approved by and under the National Assembly of the Peoples' Power (ANPP) agreement.

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

Cuba has a State Plan for the implementation of the Cuban NUA, the National Scheme of Territorial Planning (ENOT) that provides territorial and urban policies and decisions for the entire country and a Policy for the improvement of the territorial and urban planning system and for Land Management, approved by the Council of Ministers in 2018, that supports the draft rules included in the Bill on Territorial and Urban Planning and Land Management, which is under the process of approval by the National Assembly of the Peoples' Power (ANPP). This Bill governs the exercise and subject matter of territorial and urban planning and land management competences, to promote a more balanced and rational territorial development, as well as links with other leading institutions and government levels as their competences have a significant impact or are based on the territory. Its objectives include defining: - Territorial and urban planning instruments, their subject matter, scope, levels of approval and management. - Land management instruments that foster a rational and sustainable use of the land. - Responsibilities of local organs of People's Power. - Stakeholders involved in territorial and urban planning and land management, their participation and responsibilities. - Classification and qualification of the land, on the basis of their use, purpose and destination, promoting sustainable, equitable, balanced and rational tenancy and use.

- **Build the capacity of local and Subnational governments to implement local and metropolitan multilevel governance**

Local governments' (provincial and municipal) has defined its responsibilities over territorial and urban planning policies (Cuban Parliament). They implement them through Physical Planning directions, guided methodologically by the Institute of Physical Planning (IPF) and administrative by provincial and municipal People's Power administrations. The IPF is the authority institution that respond to the Council of Ministers. This institutional structure facilitates the execution of integrated tasks and public management at multiple levels. They coordinate the design of territorial and urban planning instruments to complement medium and long term economic and social development plans at territorial level. Capacity-building linked to the implementation of the Cuban NUA has been supported by international cooperation as UN-Habitat. Articulated Platform for Integral Territorial Development (PADIT) is worthy of note as it supports the decentralization process through the creation of tools that contribute to advance multi-level and multi-stakeholder coordination and management initiatives. PADIT has acquired decision-making, programming and coordination capacities that have yielded the following outcomes: - The network of its member institutions has been consolidated and progress has been made in approach mainstreaming, thanks to the permanence of associated institutions like Local and Community Development Center of Ministry of Science, Technology and the Environment (CITMA), Havana University's (UH), Center of Demographic Studies, the School of Communication, the Institute of Industrial Design, the School of Law of UH, the University Knowledge and Innovation for Development Management Network (GUCID), UH's Chair of Science, Technology and Innovation, Federation of Cuban Women (FMC) and the Center for Management, Local Development, Tourism and Cooperativism Studies (CE-GESTA) of the University of Pinar del Río. - The smooth operation of multi-level governance mechanisms, nationwide with the National Coordinating Committee and the Technical Secretariat and at territorial level with provincial and municipal working groups has been achieved. - Work at national level has been strengthened with the incorporation of four (4) new associated institutions: CITMA, for the territorialization of Task Live and strengthening the environmental approach; the Cuban IT Specialists Union, for experimental e-government work and territorial information management systems; the Exchange and Reference Center of Community Initiative (CIERIC), that boosts local development socio-cultural approach; and the National Association of Economists and Accountants (ANEC), through the National Local Development Society. - Assistance has been given to the update of the policy for the improvement of the territorial and urban planning system and land management use, as well as for the improvement of Territorial Development Index (IDT) led by the Institute of Physical Planning (IPF). - Support and momentum were given to the institutionalization of territorial development planning, management and financing tools acknowledged and validated by the competent stakeholders, including the Methodological guide for Municipal Development Strategy and Provincial Development Strategy design, and the Procedure for the Integrated Management of Territorial Development Financing in Cuba. - Assistance was given to the province of Guantánamo, not only at the time of the emergency; but for the creation of sustainable livelihoods as part of the medium term development process. - Discussions, exchanges, and continued training on decentralization, assignment of competences, local and territorial integrated economic development have been enhanced. - A total of 42 initiatives have been implemented, monitored and followed-up in PADIT provinces and municipalities, including on production and service chains, social and working environments and employment; partnerships among the various economic management entities and innovation and creative alternatives applied to territorial development that mainstream gender and age-responsive approaches. - Capacities of 3,958 officials were developed: 2,158 persons, including officials, technicians and specialists were trained during 2018 at territorial level and 1,800 were trained at national level. - The knowledge of professors, social and production stakeholders, youth and women on planning and territorial management, decentralization, development financing, territorial planning, and indicator measurement; territorial economic development and social and solidarity-based economy; demographic dynamics and mainstreaming population dynamics in local development governance, monitoring, assessment.

- **Implement participatory, age- and gender-responsive approaches to urban policy and planning**

Cuba advances in the design of a territorial and urban development model that is consistent with the status quo, as well as with the economic and social changes proposed, wherein territorial and urban development plans, urban design, laws and financing are crucial instruments, as they ensure their regular management and provide support in terms of indispensable monitoring, assessment and information. National Scheme of Territorial Planning (ENOT) is the governing planning instrument that provides territorial policies and decisions that complement the National Economic and Social Development Plan up to 2030 (PNDES), as well as territorial development plans of the 168 municipalities and urban development plans for their 168 municipal seats, including 58 cities. They are drawn up under the leadership of governments and agencies, institutions, universities and civil society stakeholders take part in the process. Participatory management has been limited, among other things, due to the lack of financial resources which has required a centralized planning. All of the above, supports outcomes of indicator (11.3.2) Proportion of cities with a direct participation structure of civil society in urban planning and management that has increased from 8.62 % in 2017 to 11.69 % in 2019, as a result of local actions carried out under international cooperation capacity-building projects in Holguín and Baracoa, in the framework of Articulated Platform for Integral Territorial Development (PADIT) and UN-Habitat technical assistance, emphasizing project prioritization. In order to advance in the fulfillment of this goal five (5) initiatives were incorporated in the SDGLab: - Urban Planning General Plan (PGOU) Update as part of the Cuban NUA implementation, in 14 urban settlements (municipal seats) of four provinces, synergizing with four international cooperation projects, namely: Technical Assistance for the implementation of the NUA at local level, International Cooperation Project: Implementation of strategies for local habitat management at the municipal level (Habitat 2), International Cooperation Project: Building Municipal Capacities for Local Development (Prodel) and PADIT. - National Urban Cadaster Program, including the geographic information system (GIS), given the need to have information on the country's real assets which shall be completed in 2021 for all urban settlements excepting Havana, due to its complexity, which is consequently extended up to 2025. - Cadaster Web Page. Set up and launch of a web page on the basis of the Cadaster Information System (SISCAT), where people can Access information on their plot. Both initiatives promote greater communication and transparency of the information on land use and tenancy, facilitating direct participation on planning management procedures. - Professional training (Mid-Level Physical Planning Technician) (IPF, CUBA). It is managed by means of vocational training and career counseling strategies per educational levels and in all provinces and municipalities in the country. Up to December 2019, 1,041 technicians have graduated from this specialty from daytime courses and 99 from evening courses for workers, all of whom will join the Physical Planning System (SPF) and contribute to improving the work (Trabajadores Newspaper, 2017). In the last few years, public consultations have been held for the design of urban planning plans for several cities, where the people living in the areas to be intervened took part. Central and Eastern Cuba regions stood out in the process. In the Central Cuban region, several public consultations are being held, under the auspices of Project Habitat 2, in the settlements of the 19 municipalities intervened by the Project. The cities of Sagua la Grande, Cabaiguán, and Remedios among others, are noteworthy, as citizens' participation has been considerable, they contributed ideas and were asked their views on interventions planned for their communities (FACTSHEET 20). In the Eastern part, this practice has been linked to the design of territorial and urban planning plans, where public consultations held in Bayamo, Holguín, Baracoa and Guantánamo, are worth mentioning due to their high level of people's participation. Those practice should be extended to the Western region and the rest of the country. A positive aspect of the bill on Territorial and Urban Planning and Land Management, public consultations are provided as a mandatory step for the design of planning instruments.

• Achieve women's full participation in all fields and all levels of decision-making

By late 2019, 50.3 % of the Cuban population were women, for a femininity index of 1,012 women per 1,000 men. When the population is broken down per age groups, it can be seen that the age group from 0-14 years, accounts for 15.8 % of the overall population and out of those, women account for 48.4 %. The majority of the population is in the segment of people from 15-59, accounting for 63.4 %, out of which women are 49.7 %. People over 60 account for 20.8 % of the population and 53.9 % (ONEI, CUBA, 2020) of them are women, which can be explained by women's longer life expectancy. The increase of life expectancy in the last few years is one factor that contributes to the high femininity index. Cuban women's life expectancy at birth is 80.45 years, while men's is 76.50 (ONEI, CUBA, 2014). A significant number of women hold leadership positions (46 %). Similarly, women "...represent 48 % of employed people in the civil state sector and 46 % of them hold top management positions; they account for 78.5 % of the healthcare staff; 48 % of scientific researchers and 66.8 % of the highly qualified technical and professional labor force... Women hold 48.86 % of Parliament seats..." (ONEI, CUBA, 2018). According to the 2012 population and housing census, 50.1 % of the population are women, for a femininity index of 1,005 women per 1,000 men. The age group from 0-14 years, account for 17.2 % of the population and of them, 48.5 % are women. The 15-59-year group is the largest and accounts for 64.5 % of the population, and out of them 49.5 %, almost half, are women. The group of people over 60 account for 18.3 % of the population, and 52.9 % of them are women, which is explained by their longer life expectancy. The increase of life expectancy has been a contributing factor to the high femininity index. Cuban women at birth is 80.45 years, while men's is 76. Both indicators have an upward trend and forecasts assure that in case of women, between 2025 and 2030, it should go up to 82 years. Although the country's unemployment rate is relatively low, the 2012 census revealed that sex disaggregated unemployment is similar, 3.6 % in the case of women and 3.5 % for men, and 3.5 % for the overall population. The number of women employed in the non-state sector is increasing and in the case of self-employed workers, they account for 15.5 %. Challenges Ensuring that local governments take on their new competences and capacities in the framework of the decentralization process, including municipal capacity development, with the required transparency, participation and accountability. It is likewise necessary to streamline this work system for Provincial Development Strategy (EDP) and Municipal Development Strategy (EDM) management at provincial and municipal level, on the basis of the grassroots level organizations created to that end. Main actions include: - Strengthening the local information and communication system, pursuant to EDP and EDM management information rules and standards, as appropriate. - Create and strengthen participation opportunities for state and non-state stakeholders and citizens. - Strengthen coordination with academic and scientific research institutions as strategic partners that can facilitate EDP and EDM design and management processes through knowledge management and innovation. - EDM shall be developed in each municipality on the basis of its essential components, namely: municipal territorial planning plans and settlement urban planning plans and environmental strategy; socio-demographic characterization; vision definition, strategic lines, local policies, major program, projects and indicators for the measurement of the municipality's development. - EDP shall be designed once EDMs have been completed. It shan't be the mere sum of all EDMs, but consider the bigger picture, focusing on the main production and service sectors that may go beyond municipalities' political and administrative division. The following components shall be attained: Provincial Territorial Planning Scheme; vision definition, strategic lines, public policies, programs, projects and development indicators to identify possible territorial unbalances that need to be offset, among others. - Development of an opportunities portfolio of local development projects for exports and import replacement on the basis of EDMs. - Map local production chain linkage opportunities on the basis of EDMs. - Monitoring and assessing programs and projects stemming from EDMs and the EDP, on the basis of a system of indicators established for the measurement of municipal and provincial development, harmonizing it with the statistics information system. Another challenge is that women's fertility rate accentuates the downward trend of demographic generational replacement. Higher fertility rates are recorded among poorer women, usually women with low educational levels who mostly live in slums and rural settlements. This is a phenomenon that worsens

from the eastern to the western part of the country, depending on local development levels and is then linked to migration to the central and eastern part of the country in pursuit of better living conditions. Causes for this imbalance are diverse, including mountainous relief, the lack of agricultural land and other natural resources.

• Implement integrated and balanced territorial development policies

Cuba has the National Scheme of Territorial Planning (ENOT), which comprises 21 territorial and urban policies. The effective use of agricultural activity under the principle of sustainable management, prioritizing highly productive land with less favorable conditions due to their hilly relief and poor water availability. This is the case of territories like the Manacas plain, Villa Clara-Sancti Spíritus heights and plain, and the Florida and Holguín peneplain. - Livestock is developed in low-productivity land with an appropriate management, always in slopes of less than 15 %, particularly in the Eastern region. - Protection forestry is implemented in buffer strips alongside streams, dams, highways and roads and human settlements. - Specialized agricultural activity development in mountainous areas. Mining and oil activities are developed in a rational manner and consistently with territorial commitments. Proof of that is the hydrocarbon exploitation along the Havana-Matanzas corridor. The effective use of the land of human settlements is promoted. Thus, land use densities are increased in cities prioritizing Havana, and other major cities. The development of areas with special regulations is fostered, whether in association with areas of high environmental, historical, cultural and economic significance. In this regard, the Mariel Special Development Zone (ZEDM) has been strengthened and the Ariguanabo Special Development Zone (Cubadebate, 2020) has been declared a scientific and technology park, as well as other preferred for tourism use. Business/industry parks for strategic development sectors and key productions are promoted with import replacement while the effective use of technologies, existing production capacities and endogenous resources of each territory: - Agricultural production parks and their processing industries are fostered, in some provinces (FACTSHEETS 21 and 22). - Work is ongoing to consolidate rice and rice-processing production areas. - The aquaculture pond recovery program is prioritized (FACTSHEETS 23). - Work is ongoing to bring sugar cane areas closer to the industry and clustering them and increase industry capacities; promote the development of sugar cane byproducts and increasing the production of animal feed and power cogeneration. - Work is ongoing in the biopharmaceutical, as well as in the software and nanotechnology industries. For the development of the tourism new modalities is encouraged to tap endogenous resources and local tourist attractions. A shift in the energy matrix is promoted on the basis of territories' needs and potentials, Significant progress has been achieved in use of wind power, and using solar power throughout the country, ENOT policies include advancing in the rehabilitation of the transportation infrastructure and updating its logistics platform. Promote Information and Communication Technologies (ICT) as technology support for territorial economic and social development. Progress made and positive results achieved in mobile telephone services and internet access are noteworthy. To promote a population distribution that responds to economic development needs and territorial potentials, and accordingly encourage migration to places that may require it, ensuring conditions for their settlement, progress has been made in: - Encouraging people to move to existing settlements with growth potentials, like in the case of Mariel. - Assessing the labor force balance and highly-qualified labor force need estimates on the basis of each territory's economic development needs. New investments are expected to create new Jobs. The development program to 2030 of Ministry of Food Industry (MINAL) will create 2,693 new jobs. To strengthen the functioning of Human Settlement System (SAH) three upper levels (country's capital, major and intermediate cities) with the relevant service hierarchy and diversified employment, with appropriate access for taxpaying population and improve their quality of life, efforts are ongoing to consolidate upper level centers and actions to increase intermediate level centers are pending. Concerning mobility improvement between rural population and base urban settlements with national and provincial roads, and railroads, prioritizing public passenger transportation, efforts are ongoing to consolidate inter-municipal and transportation infrastructure systems, but it is still deficient. Inter-province mobility alternatives are increased and diversified, by national passenger trains with Chinese coaches. ENOT provides for the development of compact urban structures that ensure optimal use of cities and other settlements inner growth potentials and the use of technical networks and services. In this regard, and for its implementation, the Territorial Planning Scheme for Habitat (EOTH) was approved in Cuba. To foster the recovery and increase of the housing inventory to improve population's living conditions, the Housing Policy is under its second year of implementation and house

reconstruction programs are carried out to improve dilapidated buildings/houses, prioritizing collapsed houses and those temporarily impacted by extreme weather events. Preservation of natural and humanized landscapes associated to traditional agribusiness infrastructures is implemented as a prioritized action as the country prioritizes the preservation of landscapes associated to the sugar, coffee and tobacco agribusiness, particularly in Los Ingenios, Viñales, and Yumurí valleys. Urban reanimation actions are prioritized in the country's capital, major cities and intermediate centers. Efforts on the local production of construction materials are also ongoing. Reducing vulnerabilities of territories, human settlements and social and economic facilities to climate change impacts is one of ENOT's policies. Progress in its implementation includes: - Removal of buildings as they are placed in flood areas and new houses have been built to relocate people who live in vulnerable areas. - Adoption of regulations for areas affected by quakes. - Ongoing efforts to relocate 15 settlements that could disappear by 2050 as other settlements that may suffer damages in line with strategic actions and the Tarea Vida state program. Countrywide water resources are managed, as well as master canals and other works are rehabilitated to ensure irrigation for the increase of agricultural productions. Finally, territorial and urban planning implementation and control is strengthened and improved through an effective institutional and citizen participation program, led by the government to ensure territorial and urban discipline. To that end, inspections are carried out at all levels.

- **Integrate housing into urban development plans**

Habitat development is crucial and strategic for the development of human settlements and territories in general. In Cuba, this is largely, one of Physical Planning System responsibilities. To that end, the Territorial Planning Scheme for Habitat 2019-2030 (EOTH) was drawn up, aiming to respond to National Scheme of Territorial Planning (ENOT) policies and findings, as well as to the Housing Policy. In the abovementioned scheme land availability for housing construction is identified, regardless of them having the required technical infrastructures and their urban studies carried out. This becomes the local and national government management tool and it has already identified places to locate housing and related required services for habitat development countrywide. This study was carried out in the country's existing 6,993 clustered human settlements, particularly in the 597 urban settlements and 58 cities, as well as in scattered settlements included in economic growth projections, in areas like forestry and agriculture (Figures 21, 22, 23, 24, 25, 26, 27, 28, and 29). EOTH is a tool that should be considered in annual economic plans of territories, as well as in technical infrastructure and service plans to meet habitat needs, articulate the housing policy with the urban policy to bring about residential inclusion and denser and suitable land use and occupation forms. Ministry of Public Health (MINSAP), carried out surveys to identify physical risk factors in various social housing solutions (SP, IMS-Industrial, Petrocasas, Titan Wall, Titan Steel, among other construction systems), as well as in semi-precarious houses (shanty towns/slums). Low and very low magnetic field studies have been carried out in public and residential spaces; health protection areas and construction limit proposals for civil radio equipment sites in Havana, on the basis of radio frequency dispersion studies; research has been carried out and completed, including a case study on shanty towns and repurposed and temporary housing to identify physical risks (ventilation, lighting, electromagnetic field, noise) dwellers may be subject to and environmental characteristics inside and outside houses; noise contamination studies were likewise conducted (inside and outside houses) to assess whether the relevant Cuban standards are met. Similarly, research work is ongoing on the existing link between power generation and power lines' electromagnetic field in Havana. All of the above is factored in territorial and urban planning and land management.

- **Include culture as a priority component of urban planning**

The third structuring axes provided in Cuban urban planning methodologies is morphology, which in essence seeks to protect and rehabilitate the existing cultural and environmental heritage, as well as new developments, to ensure that urban landscapes, public spaces, new buildings and architecture as a whole, make up an integrated group of increasing functional, and aesthetic quality with a marked significance and cultural identity. Hence, urban planning strategies include studies to guarantee the proper functioning of and promotion of existing developments' heritage and other values, to ensure their preservation, rehabilitation and restoration, as appropriate, on the basis of optimal land and building use. Similarly, they seek to consolidate existing centers and sub centers and properly design new ones to maximize their functional, morphological and symbolic values, with consistent images of growing cultural significance and economic worth. One of the objectives of urban planning is to preserve, protect, and improve the historical center, properly connecting it to the urban structure of the human settlement; bearing in mind the urbanization process of areas where natural and landscape values, and others, that may require special protection and those that are inadequate for urban development. An adequate urban morphology is indispensable to preserve local identity and the cultural values that make it up, to maintain the essence of existing architectonic and urban typologies, and densities in a development that are distinctive of each place identity except in areas where inadequate development processes occurred or significant elements promote or limit land and building use. Another goal of urban planning is to improve the urban environment and its exchange zone as it plays a dual role: support of social activities and source of natural resources; as well as enhancing inherent landscape values; avoiding disaster risks and gradually reducing contamination; always ensuring service consistency, functionality and accessibility and a balanced distribution that should be promoted among the various components of the human settlement; placing them according to their hierarchy and specialization in spaces or buildings suitable for their function; ensuring the protection and conservation of buildings, in case they have architectural or historical interest. The work carried out by the Office of the City Historian of Havana since 1938 contributed to raising national awareness on the importance of the need to preserve the heritage and cultural legacy. The preservation of the cultural heritage of the nation, has been one of the State's concern since the inception of the Revolution. Hence, it is enshrined in the Constitution of the Republic, in Law 1 on the Protection of the Cultural Heritage and Law 2 on National and Local Monuments, both laws are currently undergoing an update process, among others. The Ministry of Culture (MINCULT) has the mission of leading, supervising and assessing the results of the policy for the study, conservation and restoration of the national cultural heritage through the National Council of Cultural Heritage (CNPC). The cultural heritage of the nation is part of the national identity and is a resource of inestimable potentials for sustainable development, particularly at local level, and for the improvement of resident communities' living conditions. Proof of that are heritage cities' management experiences after the creation of city historian or conservator offices. Up to date, the National Monument Commission has ensured legal protection for 13 historical centers that have been declared National Monument, out of which 4 are included in the World Heritage List of the United Nations Organization for Education, Science and Culture (UNESCO): Old Havana and its system of fortresses, Trinidad and Los Ingenios Valley, Camagüey historic center and Cienfuegos historic center. In addition, they have adopted heritage rules in other urban areas of historic and cultural value of various cities (Figure 30). Cultural heritage conservation is an essential element in the design and implementation of cities' urban planning policies. They regulate elements like conservation, land use and occupation, densities, heights, parceling, formal regulations, among other various aspects that ensure consistency and balance between development needs and cultural heritage preservation. Historic centers management experiences in the last few years, particularly that of Old Havana, has validated a unique method to ensure heritage preservation while guaranteeing basic services to the population, including cultural services, i.e.: museums, libraries, culture clubs, movie theaters, art galleries, among others. Today, the country is updating the legal framework for cultural heritage preservation, which will contribute to strengthen its management and facilitate the articulation of national programs and strategies that are consistent with SDGs;

but preserve Cuba's essence as a nation and social project.

- **Implement planned urban extensions and infill, urban renewal and regeneration of urban areas**

At all its levels, Physical Planning System draws up partial plans, which are an urban planning tool that makes a detailed and accurate planning of a given area of a city or human settlement, which may change the prevailing planning. It is one of the instruments that allows to develop and define determinations that due to their small scale were not fully defined in the urban development plan of the settlement in order to streamline investment process management and execution control. Newly built neighborhoods' good or bad image is a result of the rights and wrongs of merits and mistakes of this tools' preparation (figures 31, 32, 33, 34, 35 and 36). In Cuba they are usually prepared at provincial and municipal level for: - New developments; - The development of depressed or undeveloped areas; - Areas to be redeveloped due to new uses. Currently, surveys are ongoing for the urban reanimation of several human settlements, particularly in central and access areas of the country's major cities.

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

Cuba's Physical Planning System (SPF), together with Ministry of Education (MINED) and Ministry of Higher Education (MES), through the National Physical Planning Training Center (CENSPLAF), which is one strength for urban planning, territorial and administrative management capacity-building and training at all levels, undertake the following actions: - "University for All" course on Territorial and Urban Planning broadcasted by the Educational Channel of Cuban TV, to let people know the basics of territorial and urban planning that impact their life. The course was also published in a booklet and in the magazine Cuban Physical Planning, issues 16 and 17. - Since 2014 Physical Planning mid-level technicians training began as one Vocational Training specialty to ensure Physical Planning System (SPF) required qualified labor force. Once graduated, these technicians are ready to survey territory's conditions and natural resources, population, technical infrastructures, economic and social development, according to their level of training to support the design of schemes, plans, research and studies on territorial and urban planning and development, information and cadasters on their various areas of work. Similarly, they can contribute in census and cadaster-related work required for the design of territorial and urban development plans, and territorial control pursuant to technical and legal regulatory instruments that govern land use and investment location targeting. Up to December 2019, 1,041 physical planning mid-level technicians had trained from the daytime course, while 99, had graduated from evening course for workers (MINED, CUBA, 2019). - Higher undergraduate Architecture and Urban Design studies are taught in four of the country's universities, for students from the three regions (in the west at Technological University of Havana (CUJAE), in the center at Central University "Marta Abreu" of las Villas (UCLV) and Camagüey University (UC) and in the east at Oriente University (UO)). Architecture and urban design majors graduate as urban planning and design professionals. Once they have completed their studies, a given percentage of graduates join SPF at all levels, from municipal to national, while others go to work at urban design or construction companies, always to contribute to an improved urban management. - Higher Geography studies, essential in all urban, territorial and environmental management processes is only taught at UH, and students from all the country can enroll. Like in the case of architecture and urban design, once geography majors graduate they join the Cuban SPF staff. The same goes for engineers, social scientists, economists and lawyers. Postgraduate courses are organized to improve capacities and urban planners' training at all levels, namely: - Territorial Planning Postgraduate Specialization Course, which is jointly organized by CENSPLAF and the UH School of Geography, to provide a broader theoretical and hands-on training in the field of this discipline and operational training on Physical Planning. Graduates will be capable to propose a more rational use of physical space, and natural resources taking into account an environmentally-friendly approach on the basis of our country's social, economic, scientific and technological conditions. Once they complete their studies, Specialists have a broader knowledge of territorial planning theoretical and methodological principles and concepts, as well as most often used methods and techniques. Until July 2020, 15 specialists have graduated from the four courses held so far. - Master's degree course on Territorial Planning and Urban design, which is jointly organized by CENSPLAF and CUJAE's School of Architecture to upgrade and update the level of training of professionals, professors and researchers to plan, identify, protect, preserve, rehabilitate and partake in the management of the system of human settlements, landscapes, cities and urban settings on the basis of their mastery of science-based methods and techniques, with a culturally committed and ethically consistent approach. It also seeks to instill in professionals teaching, research and development skills in this area of knowledge, including the ability to communicate and network with specialists from various disciplines. It is based in the master's Degree course on Human Settlement Management that lasted three years. Until July 2020, out of the five Territorial Planning and Urban Design Master's Degree courses held so far, 21 students have graduated. On a yearly basis, Institute of Physical Planning (IPF) organizes courses and seminars in all provinces, which in turn organize courses and seminars at municipal level, which are attended by national, provincial and local bodies and institutions involved in urban and territorial processes. Workshops and seminars address issues like

territorial and urban planning, cadasters, investments, legal matters, risks and climate change, Tarea Vida, the Physical Planning mid-level technician syllabus, as well as the NUA and SDGs. Between 2018 and 2019, 801 officials and specialists have taken part in this training program (CENSPLAF, IPF, 2020). Synergies have been established with international cooperation projects that promote capacity-building and training, namely: Strengthening urban resilience in Cuban major cities, Articulated Platform for Integral Territorial Development (PADIT), Implementation of strategies for local habitat management at the municipal level (Habitat 2), Environmental Bases for Local Food Sustainability (BASAL) and Building Municipal Capacities for Local Development (Prodel), that strengthen involved community and stakeholders' capacities, that collectively create tools that contribute to urban and local development, among others. On the other hand, the Cuban NUA intersectorial vision has been implemented in the training of epidemiologists and in the Master's Degree course on Environmental Health to undertake comprehensive actions to address pressing issues, which has contributed to Cuba's response to COVID-19. Through its structures, Ministry of Public Health (MINSAP) consolidates and promotes the strategy of healthy environments which include schools, workplaces, universities, households and prepared a monograph on actions carried out to Foster healthy environments. The impact of this comprehensive and diverse training program will contribute to strengthen local government capacities, a better territorial urban planning, as there will be more qualified and skilled personnel that can come up with solutions on the basis of their technical knowledge, which in turn will contribute to the improvement of the quality of life of the population.

- **Strengthen the role of small and intermediate cities and towns**

Strengthening the operation of Human Settlement System (SAH) three upper levels with the relevant service hierarchy, diversified employment, adequate accessibility for tax payers and improving their quality of life is one of National Scheme of Territorial Planning (ENOT) policies. To make it happen, the following has been provided:

- Consolidate Havana as a center of highly specialized services and diverse economic activities, with a functional structure and urban image consistent to its status as capital city of the country.
- Prioritize the development of major cities as inter-province and provincial centers (i.e. Santiago de Cuba, Santa Clara, Camagüey and Holguín), to meet people's highly specialized service and economic activity access needs according to the assimilative capacity of its spaces.
- Maintain development efforts of current intermediate centers (inter-municipal centers) prioritizing those linked to areas of greater development, namely: Guanajay, San Antonio de los Baños, Cárdenas, Caibarién, Trinidad, Morón, Nuevitas, Moa; as well as Manzanillo, Baracoa and Nueva Gerona.
- Strengthen efforts to improve the 14 existing depressed intermediate centers: Sandino, San Cristóbal, Güines, Santa Cruz del Norte, Colón, Jagüey Grande, Sagua la Grande, Jatibonico, Florida, Puerto Padre, Banes, Mayarí, Palma Soriano and Contramaestre; and promote other seven to strengthen that territorial role: Consolación del Sur (Pinar del Río), Bauta (Artemisa), Jovellanos (Matanzas), Guáimaro (Camagüey), Amancio (Las Tunas), Niquero (Granma) and San Antonio del Sur (Guantánamo). To that end, mobility among SAH various levels is promoted, which improves rural population access to urban settlements with their municipal seats and the technical condition of national and provincial roads and railroads, prioritizing public passenger transportation.

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

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2.3. Means of Implementation

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

The main source of financing for the implementation of the Cuban NUA State Plan is the Budget, according to the National Economic and Social Development Plan up to 2030 (PNDES) which encourages a better use of local potentials and management. Other financing sources may be added on the basis of opportunities and contributions arising from non-state entities. Additionally, other financial contributions from international cooperation (i.e. projects and technical assistance) and involved stakeholders that will benefit from transformations and economic benefits that this process of making a city entails are foreseen. Local development and management are essential for the allocation and management of financial resources from the national and local budgets. Another opportunity now available for municipal administration councils is the 1% contribution to local development that has helped solve several local emergencies or outstanding complaints due to lack of financing sources. The improvement of roads, the revival of cultural and sports facilities, polyclinics and hospitals, gastronomy and service units, among other entities, have been possible thanks to that fund for the benefit of the population.

- **Mobilize endogenous (internal) sources of finance and expand the revenue base of Subnational and local governments**

The State Budget Law is approved on a yearly basis. It allocates resources to provincial budgets and the Special Municipality of the Isle of Youth, which are informed by income and expenditure estimates of provincial and municipal People's Power administrations, budgetary units, umbrella business groups and enterprises under or attached thereto, as appropriate. Budgets from provinces and the Special Municipality of the Isle of Youth receive a share from Central Budget revenues to cover current costs of their budgeted activity; estimated on the basis of tax revenues from profit tax from enterprises that respond to the central government but are located on their territories, retail and wholesale taxes and unassigned excise taxes according to established limits. The Provincial People's Power Administration determines the Central Budget income share to be allocated to its municipalities, to the extent they require it, ensures that each provincial Budget complies with previous article provisions and Ministry of Finance and Prices (MFP) rules for revenue sharing. Similarly, it defines top limits for transfers from the provincial to municipal budgets as subsidies to cover approved additional current expenses, on the basis of net assigned income and planned revenue sharing. Challenges Concerning the mobilization of financial resources for development, the local administration are beginning to understand, the relevance not only create goods and services, but new Jobs and income sources for their municipalities, under their new autonomy. Each territory has areas they can take advantage of, whether it is their natural resources, cultural heritage or consider producing necessary items locally, for example construction materials that are indispensable to implement the housing policy approved in the country.

- **Formulate sound systems of financial transfers from national to Subnational and local governments based on needs, priorities and functions**

The national development strategy provides the development of territories through the strengthening of municipalities as their basic government structure, with the required autonomy, that are sustainable and have a solid environmental, economic, productive, social, cultural and institutional base and takes advantage of its potentials. Local development in Cuba has become a public policy of strategic importance, as part of the National Economic and Social Development Plan up to 2030 (PNDES), as well as one central axes articulating of local governments' public agendas. Progress in territories is promoted on the basis of their own Municipal Development Strategy (EDM), drawn up with citizens' participation, to ensure they are strengthened, have the required autonomy and a solid environmental, economic, social and institutional base, and use endogenous and exogenous resources in a sustainable manner and foster inter-stakeholder, inter-territory and multi-level synergies. This process requires harmony between centralization and decentralization of state decisions, entails municipal self-management of issues of their primal concern and a clear definition of the scope of action or competences of the nation, the province and the municipality. In this regard, Cuba's Articulated Platform for Integral Territorial Development (PADIT), led by Ministry of Economy and Planning (MEP), together with the National Economic Research Institute (INIE), IPF and the Ministry of Foreign Trade and Investment (MINCEX), it counts on the support of UNDP Cuba and COSUDE, seeks to promote decentralization processes, local and territorial capacity-building for multi-level planning, development management and synergizing. It aims at placing local governments at the center of sustainable development management, articulation, induction and facilitation within their respective jurisdictional frameworks. PADIT is a program that supports national and local priorities, where the role of governments and community stakeholders is strengthened. It seeks to improve people's living conditions in territories linked to the program, emphasizing groups of women and youth, through articulation processes that foster territorial development. Community dwellers are at the same time actors and promoters of this program. Multidisciplinary working teams are created in each municipality and tools and opportunities for greater popular participation are created, while coordination mechanisms with academic and scientific research institutions are established to facilitate the process through knowledge and innovation management, and ensure a public administration system that is transparent, swift, and effective, and focused in attaining results for the benefit of society and conducive to national and local development. International cooperation project Habitat 2, encourages the creation and development of capacities (at the level of governments, public stakeholders, population and non-state stakeholders) for an effective local habitat management at municipal level, in synergy with local sustainable development goals in 10 municipalities of the central region in its first phase, and currently in 19 municipalities. Its main results are: - Governments have included in their EDM a specific strategic line for habitat with work programs and actions in the medium term. - Specific approaches have been applied for vulnerable groups and precarious habitat in programs and actions similar to the EDM, on the basis of assimilated tools for habitat integrated participatory self-diagnosis. - Over 3,000 people have been trained (62 % women) and 1,500 decision-makers; which was possible thanks to the creation of the CLOC network and the organization of workshops and other dynamic activities (FACTSHEET 24). - Services provided to citizens have been improved (particularly bureaucratic and project processing and paperwork) through the strengthening of municipal service providers with technology, furniture and other conditions that make their work more effective. A total of 1,000 citizens were surveyed on opinions of entities' staff and impact indicators (processing time, number of formalities) (FACTSHEET 25). - Local construction material production was increased as well Access thereto and diversification thereof. Local resilience has been strengthened for post-disaster recovery through the delivery and installation of equipment, machinery and tools. Local and provincial business system advisory, information and reports have been applied. - Access to fresh water by the vulnerable population of underserved areas and precarious settlements has been increased through the creation of safe and hygienic water storage capacities with the leadership of neighborhood committees. Testimonies of beneficiaries and local committee and governments' information is available. - Public spaces in cities and towns have been created and/or

rehabilitated as a result of joint government-project execution, the application of participatory design methods and principles with the community. Municipalities have spaces that are complete and operational and there are testimonies of beneficiaries' satisfaction. - An Inter-Municipal Coordination Table was established for rural mountain habitat management (including municipalities Fomento, Manicaragua, Cumanayagua), to create territorial coordination mechanisms on issues of common interest (FACTSHEET 26). - Sustainable decisions were made to relocate the population of coastal areas at risk due to extreme weather events and the sea level rise through the implementation of community participatory and engagement techniques and minimizing social, economic and environmental impacts.

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

Cuba does not have access to credits and international financial sources due to the blockade of the United States of America. The main source of financing is the Budget, according to the National Economic and Social Development Plan up to 2030 (PNDES) which encourages a better use of local potentials and management. Other financing sources may be added on the basis of opportunities and contributions arising from non-state entities. Additionally, other financial contributions from international cooperation (i.e. projects and technical assistance) and involved stakeholders that will benefit from transformations and economic benefits that this process of making a city entails are foreseen. Local development and management are essential for the allocation and management of financial resources from the national and local budgets. Another opportunity now available for municipal administration councils is the contribution to local development that has helped solve several local emergencies or outstanding complaints due to lack of financing sources. The improvement of roads, the revival of cultural and sports facilities, polyclinics and hospitals, gastronomy and service units, among other entities, have been possible thanks to that fund for the benefit of the population. The State Budget Law is approved on a yearly basis. It allocates resources to provincial budgets and the Special Municipality of the Isle of Youth, which are informed by income and expenditure estimates of provincial and municipal People's Power administrations, budgetary units, umbrella business groups and enterprises under or attached thereto, as appropriate. Budgets from provinces and the Special Municipality of the Isle of Youth receive a share from Central Budget revenues to cover current costs of their budgeted activity; estimated on the basis of tax revenues from profit tax from enterprises that respond to the central government but are located on their territories, retail and wholesale taxes and unassigned excise taxes according to established limits. The Provincial People's Power Administration determines the Central Budget income share to be allocated to its municipalities, to the extent they require it, ensures that each provincial Budget complies with previous article provisions and Ministry of Finance and Prices (MFP) rules for revenue sharing. Similarly, it defines top limits for transfers from the provincial to municipal budgets as subsidies to cover approved additional current expenses, on the basis of net assigned income and planned revenue sharing.

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

A good practice of city-to-city cooperation, is the Network of Cuban Heritage City Historian and Conservators' Offices, created in 2008 and institutionalized in 2013 in order to Foster experience and knowledge sharing in urban rehabilitation and heritage recovery to preserve the historic and current heritage of the nation. This does not limit the autonomy each city or office has in their own heritage recovery activities in the cities of Havana, Matanzas, Cienfuegos, Trinidad, Sancti Spíritus, Camagüey, Bayamo, Santiago de Cuba and Baracoa, as well as in the towns of Viñales and Remedios. Their main actions are: - Joint development of urban regulations; - Design of integrated development plans of historic centers, territorial information systems and trade schools; - Training workshops on urban planning, the environment, cooperatives, self-employed work, international cooperation, Territorial Information Systems and social work. - Cultural festivals and events; - Coordination of national thematic networks; - International cooperation and relations; - Communication strategies, magazines, radio and TV programs; - Promotion of sustainable tourism.

- **Implement capacity development as an effective, multifaceted approach to formulate, implement, manage, monitor and evaluate urban development policies**

The international cooperation Project Technical Assistance for the Implementation of the Cuban NUA is the result of efforts coordinated by the Physical Planning Institute (IPF) with the Central University of Las Villas (UCLV) and national experts from several institutions with UN-Habitat technical assistance to strengthen capacity development for the design, implementation, management, monitoring and assessment of urban development policies with indigenous resources. Its main results are: - Capacity-building and development of Cuban NUA implementation instruments that govern the urban policy to ensure that cities and human settlements in the country, on the one hand get closer to the ideal proposed by the NUA, and on the other, serve as catalyzers of the Cuban socialist economic and social development model. - Proposals resulting from workshops on project operationalization and prioritization, urban planning and result systematization and dissemination actions were directly incorporated into the National Action Plan (PAN). This State Plan shows the country's commitment to the Cuban NUA implementation, with the construction of its work proposal on the basis of the Regional Action Plan for Latin America and the Caribbean promoted by the Economic Commission for Latin American and the Caribbean (ECLAC) and UN-Habitat, that articulates regional priorities for an inclusive, prosperous and sustainable development, that seeks to implement the 2030 Sustainable Development Agenda in the region. It was conceived on the basis of the analysis of Cuba's territorial and urban context, carried out in the framework of these two projects, where the Baseline situation was identified. It was designed by means of workshops where international experiences were shared, and the strategy direction and final objectives the new urban policy should address were defined. On the one hand, the new urban paradigm expressed by the NUA was considered; and on the other, program documents adopted in 2017 that guide the implementation of the 2030 Cuban Socialist Economic and Social Development Model in the medium and long terms. On the basis of evidences obtained in the current context and its trends, the NUA indicative background and the Cuban Socialist Economic and Social Development Model, as well as workshops organized with national and international experts, several program documents were drawn up: - Tool for the implementation of the New Urban Agenda in Cuba; - Alignment of Cuban Housing with the New Urban Agenda; - Methodological Guide for Urban Project Prioritization. These documents identified challenges and proposed institutional capacity-building actions for greater effectiveness of public urban and territorial planning, housing and urban development policies. Projects made it possible to translate NUA principles, a document with a global approach, into concrete actions that will contribute to the improvement of people's living conditions. To contribute to capacity-building under the framework of technical assistance, 15 workshops were held, with broad involved key stakeholders' participation.

- **Build capacity at all levels of government to use data for evidence-based policy formulation including collecting and using data for minority groups**

The National Statistical and Information Office (ONEI) through its Center of Population and Development Studies (CEPDE), at the request of the Council of Ministers provides to provincial and municipal governments the necessary information to assess demographic dynamics, resident population and variables that factor in its growth on a quarterly basis. It likewise presents a set of systems that allow for the dissemination of sociodemographic data. One of them, the Integrated System of Demographic Queries (SICDemo) makes an online processing system available for users which contains data on vital, migration and population statistics that may be directly operated by users through an interface, without accessing databases. The abovementioned application contains all databases created from 2006 to the present on births, deaths, marriages, divorces, national and international migration, as well as population series from 2013 to the present. The GEOCENSO APK provides all territories geospatial analysis possibilities with data from the 2012 Population and Housing Censuses (CPV) (355 indicators) all the way down to the level of blocks, census districts, human settlements, municipalities and provinces. This information allows for greater knowledge of Cuban population characteristics.

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

Regarding SDG 8: “Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all”, the Ministry of Labor and Social Security (MTSS) is the Central Administration of the State (OACE) in charge of proposing, leading and controlling the labor policy of the State and the Government and, together with the labor divisions subordinated to local administrations, regulates and control all matters within its purview. It also coordinates and cooperates in issues of common interest. This policy is strengthened with the strategy approved by the Government in the Employment, Salary and Social Security Program and in the National Economic and Social Development Plan up to 2030 (PNDES), which guarantees quality productive employment and articulates vocational training and job placement under safe working conditions, emphasizing on youth and women. There is full employment with an unemployment rate lower than 1.2% (MTSS, CUBA, 2020). Job placement of persons available for employment is promoted. It is estimated that by the end of 2019, 4,515,200 persons were employed in the economy, 3,079,500 in the state sector and 1,435,700 in the non-state sector (MTSS, CUBA, 2020). The budgetary sector employs 1,478,200 workers (48%), with health and education as the most representative sectors with 800,000 workers. The business sector has 1,601,300 workers (52%), mainly in agriculture and husbandry, sugar industry, manufacturing industry, and construction. The self-employed sector has been increasing steadily from 157,000 to 621,268 persons as of October 2019, representing 13% of the total number of employed persons in the country, thus confirming its validity as a source of employment. Programs for the attention to persons with disabilities are monitored by the National Council responsible for associations of persons with disabilities. There is no child labor in Cuba and education is compulsory till the 9th grade, i.e. for children up to 14 years old. Continuation of studies in vocational training or senior high school is guaranteed. Between 2015 and 2019, a total of 752,176 persons were placed in jobs. The total number of graduates placed in jobs amounted to 217,314, disaggregated as follows: 53,282 university graduates; 66,372 mid-level technicians; 93,792 qualified workers; and 3,868 from trade schools (MTSS, CUBA, 2020). In terms of employment, salary and social security, Cuba has ratified 90 conventions with the International Labor Organization (ILO): 2 on Governance and 80 technical ones. Out of the eight fundamental conventions, Cuba has ratified the following: Forced Labor Convention, 1930 (No. 29); Equal Remuneration Convention, 1951 (No. 100); Abolition of Forced Labor Convention 1957 (No. 105); Discrimination (Employment and Occupation) Convention, 1958 (No. 111); Minimum Age Convention, 1973 (No. 138) Minimum Age Specified: 15 years old; and Worst Forms of Child Labor Convention, 1999 (No. 182) (MTSS, CUBA, 2020). During the Covid-19 pandemic, nobody has been left unprotected, and the following measures were implemented to protect both state and non-state employment (IPS, CUBA): - Remote work and telework: This is measure that has been in place since September 2019, and is an employment modality that has become a standard practice; - Full salary remuneration to workers who continued working in their working centers or from their homes; - Relocation of workers without work content in other activities aimed at fighting the pandemic in their territories like active screening or food production; - Full salary remuneration for the first month, to those workers that were not relocated, and 60% salary remuneration for the following months during the duration of the exceptional conditions; - Pay for performance in the business sector, provided the situation allows. Only otherwise, workers will be paid the minimum wage. - Workers who due to the pandemic have not been able to return to the country and whose three-month unpaid leave is overdue, shall directly inform the management of their work center or through their relatives and will not lose their jobs. - Workers hospitalized due to Covid-19, shall receive 50% of the average salary of the last months, and if at home, they will get 60%. - Self-employed workers and non-agricultural cooperatives that temporarily suspend their business activities by their own decision or in compliance of governmental measures shall be exempted from paying taxes. If they are located in a touristic region and continue providing services, they shall only pay 50% of their contributions. - Postponement of social security contribution while the situation persists. - Remuneration of hired personnel who continue working even with reduced levels of activities, in accordance with the time worked, but never less than what is

provided in the Labor Code.

- **Engage local government associations as promoters and providers of capacity development**

The participatory planning and management process (goal 11.3) has focused on the operation of the Municipal Assembly of People's Power, made up of the delegates elected in each constituency into which each territory is divided for electoral purposes, through free, equal vote, direct and secret of the voters. In public sessions, the instruments of territorial and urban planning of the municipal scope are approved as established in article 191 of the Constitution of the Republic of Cuba, also corresponding to the Municipal Assembly of People's Power to control their compliance. The Popular Councils, as organs that support the Municipal Assembly, facilitate the participation of the community in solving their problems, they are together with social and professional organizations, the axes of citizen participation. Citizen consultation due to its innovative nature, by promoting greater participation and high communication among all the actors involved in territorial and urban transformations in their spatial, environmental, economic, social and cultural dimensions, is generalized and determined as a form of work to be applied throughout the planning and management system of the instruments of territorial and urban planning, which has not reached the desired levels due to the limitations of financial resources, constituting a great challenge. In this direction, progress is being made in strengthening the online government in order to facilitate transparent governance and direct interaction with the citizen; as well as in the articulation between the ways of planning, managing and governing, based on participatory planning that allows creating an environment for identifying problems and searching for solutions at the local scale. The proportion of cities that have a structure of direct participation of civil society in urban planning and management is increasing, as a result of local actions supported by international collaboration projects in the cities of Santiago de Cuba, Holguín, Bayamo, Baracoa and nineteen municipalities in the provinces of Villa Clara, Cienfuegos and Sancti Spiritus mainly, which facilitated the strengthening of capacities within the framework of the International Cooperation Projects Articulated Platform for Comprehensive Territorial Development (PADIT) and the Implementation of strategies for local habitat management at the municipal level (Habitat 2), and the technical assistance of UN- Habitat.

- **Implement capacity development programmes on the use of legal land-based revenue, financing, and other tools**

Concerning capacity-building for Cuban NUA implementation, the next steps to be taken shall focus on the implementation of proposed policies and the required strengthening of capacities for the development of new urban policies. The implementation of capacity development programs using land rent revenues and other tools, is a challenge for Cuba. Work is ongoing to develop a legally-supported methodology to allow for the use of land rent revenues in the city, as these income is not currently captured. A unique case is the management model of the Havana City Historian Office, which should be spread as these revenues have been invested in the improvement of service infrastructure there and profits have been used for the rehabilitation and restoration of the capital city historic center.

- **Implement capacity development programmes of Subnational and local governments in financial planning and management**

The State Plan for the Implementation of the New Urban Agenda in Cuba, approved by the Cuban Government, allows the coordination of policies, plans and programs at the national and local level, its management ensures the implementation of actions in the short, medium and long terms. The direction of the implementation of the State Plan corresponds to the governments at its three levels: nation, province and municipality, and coordination to the President of the Institute of Physical Planning, the provincial and municipal directors of Physical Planning, as appropriate. Taking into account that, the main source of financing for the actions of the State Plan is the budget, as well as other sources from opportunities and income from new forms of management that provide financing, as a result of international collaboration especially for the local development, the National Group to implement the New Urban Agenda, coordinated by the Physical Planning Institute, in collaboration with UN-Habitat, the group of experts and consultants, allows integrating results and foreseeing actions to manage financing at the national and local levels. The organization of national and international meetings, including: the International Convention on Land Management and Urban Planning, FUN and methodological workshops to share methodological experiences, analysis techniques, research results, as well as instruments and projects related to the field that contribute to capacity development.

- **Increase cooperation and knowledge exchange on science, technology and innovation to benefit sustainable urban development**

Cuba has adopted a policy for the increased and improved use of IT on society, which evinces the country's will to promote an increased use of ITs in territories and achieve an effective e-government, where citizens can directly interact with their representatives using Information and Communication Technologies (ICTs). Governmental web sites are an e-government tool that allows for the direct interaction of people with their government. It is a reality in all provinces and in over 50 % of municipalities. Similarly, administrations and entities at all levels (i.e. national, provincial and municipal), enterprises and their units, also have web pages that allow for greater transparency and communication with citizens. This policy has been conceived according to policies and actions under the national Economic and Social Development Strategy and is supported in the following general guidelines: - The development of ICTs should become a tool for the defense of the Revolution; - Ensure cybersecurity against all sorts of threats, risks and attacks. - Ensure technological sustainability and sovereignty. - Promote citizens' access to new ITs. - Preserve the developed human capital linked to the activity. - Consistently develop and update all areas of society, to support national priorities and according to the pace of our economic growth. - Combine research, development and innovation with the production and sale of goods and services. This comprehensive policy entails the implementation of the following specific policies and principles: - Implement the National IT Program, that integrates and harmonizes national priorities in the short, medium and long run per economic sector and territory. - Implement the National IT Program, as part of the National Economic and Social Development Plan up to 2030 (PNDES), that corresponds to a specific objective of the Infrastructure Strategic Axes and define a system of indicators to measure its impact. - Implement the National Technological Security System. - Design and implement the Integrated Human Capital Management System. - Restructure production and service activities associated to this sector. - Improve management, update, dissemination, and sale mechanisms for digital services, contents and IT equipment, in line with the Social Communications Policy. - Develop and update the technological infrastructure, providing special attention to broad band deployment and manufacture of IT equipment in Cuba, prioritizing industries and production sectors that are sensitive for society. - Foster the development of the ICT equipment manufacturing industry, encouraging foreign investment. - Implement mechanisms that organize and incentivize international cooperation for the safe development of ICTs. - Restructure IT activity, making the required organizational changes to ensure the integration and management of process related to the IT development program at the highest political and governmental levels. - Improve the legal, regulatory and standard framework to ensure the safe production, use, interoperability, certification, security and commercialization of ICTs. The national ICT development policy is based on four basic pillars: the development of telecom infrastructure and services, the development of national contents, cyber-security and an enabling legal framework, and the promotion of a culture for the use of technologies. Progress has been made in the development of telecom infrastructure and services, and by the end of 2019, the following results had been attained: - Installation of more than 1,300,194 new land lines throughout the country; 633 new public telephones, which combined increase the total to nearly 61,000. - Over six (6) million mobile cellular telephony subscribers (in 2019 there was an increase of around 650,000). - Over 35 % of the 3,364 operational radio base stations were installed in 2019. - The number of people with cellular telephony signal coverage increased to 85 % and 4G mobile telephony is available in all provincial seats and municipalities of the capital city, accounting for a 22 % coverage, while more than 6.5 million Cubans have access through several ways. - Over 3.4 million users have been provided with Internet access through mobile data service; more than 650,000 of them through 4G. - In 2019, the number of collective Internet access areas were increased in 229, thus reaching over 1,500 WIFI hotspots and more than 650 navigation rooms. - International connectivity of the country increased its capacity in 30 %, also in 2019. - Institutions' connectivity grew in a 13.5 %, reaching over 48,600 nationwide. Progress was made in the expansion of connectivity to education, healthcare and tourism, while all universities are now connected through fiber optics with a significant band width increase. In terms of e-government, all Organs, the Central

Administration of the State (OACE) and provincial administrations of People's Power have Internet web portals. By the end of June 2020, over 60% of municipal governments' web portal were also public, which facilitates greater citizens' interaction with their government through cyberspace. As part of this process, efforts are being made to digitize public records, to facilitate citizens' paperwork and ensure greater transparency and celerity. These impacts, among others, Civil Registries, Notary's Offices, Law Firms, Courts, Prosecutors' Offices, Tax Offices, Housing and Urban management formalities. The improvement of electronic payment channels seeks to reduce the use of cash as a means of payment and provide more effective and safer services to the population, which contributes to the digitization of society. Transfermóvil y ENZONA APKs are examples of good practices in the development of digital platforms and tools that make citizens' life easier as it enables the provision of e-banking services through mobiles phones from the comfort of people's homes. Through the Transfermóvil APK users can check operations, pay taxes, utility bills like wáter, telephone, gas and electricity, transfer money, among other useful functions. Users do not need to a mobile data network of the Internet, nor have a smart phone. With this service provided by Cuba's Telecom Company (ETECSA), phones have similar functions to an automatics cashiers. Over 600,000 people actively use the payment platform and that number is growing. It is available 24 hours a day and free of charge; operations are safe and can be made from low coverage areas.

- **Develop user-friendly, participatory data and digital platforms through e-governance and citizen-centric digital governance tools**

Cuba has a Government Information System (SIGOT) with the the following scopes: State Organs, Central Administration of State (OACE), national entities, local People's Power administrations and in each case, their management organs, subordinate and affiliated entities. Higher Business Management Organization (OSDEs), enterprises and basic enterprise units. Wholly Cuban owned companies, joint ventures, wholly foreign owned companies and their subsidiaries. Non-state entities. Political, social and mass organizations, as well as their subordinate or affiliated entities. Other entities, as decided by the Government Information Council. Greater objectivity in the identification of its basic principles has been achieved since it was defined the principles of official statistics. The SIGOB development premises, are: Implementation of the National IT Development Program, including the Integrated IT Development Policy, that ensures automated information sharing among the various stakeholders Organization of the Public Records System of the Republic of Cuba. Ensure official information harmonized nationwide and comparable with the rest of the world. Implementation of semantic interoperability between information systems to ensure official data management. Integration of the SIGOB by the National Statistics System (SNE) and institutional information systems that interact with all government levels, society and citizens' information needs. The SNE is defined as the set of general rules and procedures that, as methodological framework consistently integrates statistic data from the Government and ensures international comparability. It is made up of three subsystems namely: the National Statistic Information Subsystem (SIEN), the Complementary Statistic Information Subsystem (SIEC) and the Territorial Statistic Information Subsystem (SIET). Institutional Information Systems are created according to their role or corporate purpose, by state bodies, to measure the achievement of their goals and plans, that have content that is not necessarily statistical. Official statistic data are those issued by National Statistical and Information Office (ONEI), through publications and statistic services, pursuant to the principles provided for the SIGOB. The official statistic information is all the information issued by State Organs, OACE, national entities, local People's Power administrations and OSDEs, on their activity, provided said information originated from information systems that make up the SIGOB, Decree-Law 6 sets forth the classification of official statistical information, depending on their update level and responsibilities for the dissemination of official information are governed by a set of rules (Decree 9). As the SIGOB manages nationwide significant information, which is part of the SNE or institutional information systems, given its importance and aggregation level it is demanded by the top Government leadership to assess public policies and programs, for decision-making and monitoring the economic and social development of the country. The creation of the National Indicator Inventory, is part of the nationally significant information and is a set of indicators, mainly of a quantitative nature and of various types and areas, which allow for the description, comparison and assessment of the situation, vis-a-vis other periods of time and the rest of the world. It is drawn up on the basis of the most traditionally used in the country's praxis and is updated depending on national development priorities in the short, medium and long terms. The National Indicator Inventory is part of the Nationally Significant Information and both are approved by the Government Information Council. The Prime Minister acts as SIGOB general director and chairs the Government Information Council, power that he can delegate to a First Deputy Prime Minister, under the effective legislation. He gets advice from the Government Information Council, Technical Committees and ONEI. The Government Information Council is the consultative organ entrusted with the assessment of general policy proposals on the management of SIGOB. In discharging its duties, this body harmonizes Central Government information interests with the SNE and institutional Information Systems. The main duties of the Government Information Council were updates, including the powers and obligations of the Chair, Vice chairs, Secretary and other members, as well as the ordinary duties of Technical Committees. ONEI's mission as national entity that manages the SNE and is answerable for the methodological guidance of the SIGOB, including its organization, coordination, integration and control. In addition, it ensures interrelations with the various stakeholders. Decree 9 complies the mandate provided in the Second Final Provision of Decree-Law 6 "On the Government Information

System", under which the Council of Ministers is empowered to pass complementary provisions.

- **Expand deployment of frontier technologies and innovations to enhance shared prosperity of cities and regions**

In Cuba there are over 1.5 million Internet permanent navigation accounts through the NAUTA platform, with an international navigation. Additionally, there are more than 3.5 million Nauta e-mail accounts. Similarly, there are 676 navigation rooms available (2,303,000 navigation points) and 1,077 public WIFI navigation areas throughout the country including urban and rural areas. There are also 511 WIFI areas from other entities that provide Internet access service to the public. There are 166,000 households that have Internet service. Over 3.9 million users have available Internet service from their mobile phones, out of them 3,385,000 do use the service. There are around 1.8 million active mobile data plans. Over one million users have can now connect to the 4G network, technology that is expanding. There are public computer rooms (Joven Club de Computación y Electrónica), out of which, 288 are connected by fiber optics and the development of the Wireless network began with 70 facilities and 15 sites mostly in Havana. Efforts to improve the quality of services provided there are ongoing, increasing historic contents that contribute to enhance users' cultural background. Other University-Business work model are developed through the creation of the first Technological Park at the University of Information Sciences (UCI). The University of Matanzas is also advancing a technological park model in this sectors, as well as other universities in the country. A group of Cuban digital platforms very popular among the youth have been developed. For example, ToDus had more than one million users; Apklis had over 23 million downloads; Picta, more than 550,000 views; Ludox, more than 75,000 downloads and Ecured is one of the most visited national sites. Since 2013 work is ongoing for the deployment of digital television. A total of 133 transmitters were installed, 115 of standard definition, which ensure signal coverage for 70.5 % of the population, while 18 are high definition and have a 23.3 % coverage. Partial transition from analogue to digital televisión was carried out in five municipalities of the province Sancti Spíritus and the special municipality Isle of Youth. The 82 % of digital televisión centers (97 out of the existing 118) are connected by fiber optics. This transition marks the beginning of the release of 700 MHz, required to provide greater 4G mobile telephony coverage and make its deployment more cost-effective.

- **Implement digital tools, including geospatial information systems to improve urban and territorial planning, land administration and access to urban services**

In Cuba, the cadaster is a primary information system made up of a set of data and descriptions of urban and rural property, including their location, area, limits, measurements, use, worth and other physical, economic and legal circumstances to have actual knowledge of the national territory that contributes to national development objectives. Since 2015, the cadastral policy is governed by the Physical Planning Institute (IPF), authority granted under Decree Law 332/2015 on the “Organization and operation of the National Cadaster” (Official Gazette, 2015). As a public record, the cadaster provides actual knowledge on territories and are the information source for urban and territorial planning. It is a tool that strengthens the effective management of territories’ information, provides inputs to support Hazard, Vulnerability and Risk (HVR) studies, Territorial and Urban Planning, as well as Disaster Risk Reduction Plans (DRRPs). Likewise, it allows to easily determine the type of structure, the condition of the housing inventory, which are basic inputs for Disaster Risk Reduction management decision-making. It is modelled to serve as basis for urban city and human settlement planning. Until June 2020, 611 human settlements had been planned, the cartographic and geodetic survey was completed in 313 of them, 168 have their plot surveyed and 46 are computerized. In 2021, the survey, plot survey should be completed, including uploading said data into the Cadaster Information System (SISCAT). The province of Guantánamo completed the survey and research of all urban settlements in its territory and is working to introduce research into the SISCAT. The province of Cienfuegos concluded the survey and is involved in research and digitization; 21 of the 46 digitized settlements of the country belong to this province. Cuba also has the Government Information System (SIGOB) which is society and citizen-centric, according to article 53 of the Constitution of the Republic: “All persons have the right to request to and receive from the State true, objective and timely information and have access to the information created by State bodies and entities, pursuant to effective regulations”. The SIGOB is the integrated set of systems that is organized to meet society and citizens’ information needs related to Government objectives and plans at all levels on environmental, economic, social, demographic and geographic, as well as on the functioning of government bodies and others as decided, as well as for decision-making, and public policy making and follow up that ensure the economic and social development of the country. The final approval of urban development planning of areas under special regulations, regions of touristic and economic interest, as well as cities and settlements of national interest, is one of the powers of the Council of Ministers, which is the highest government organ. Provincial Councils approve the Urban Planning of the provincial main city and settlements of provincial relevance, as appropriate; while AMPP approve the other urban and territorial planning. In December 2019, as part of the implementation of urban development policies, the Council of Ministers approved the State Plan for the Cuban NUA implementation, which shall be managed by national bodies and entities and local governments incorporating its actions in annual economic plans (budgets). All of which is consistent with the Economic and Social Policy Guidelines of the Party and the Revolution for the 2016-2021 period, the conceptualization of the Cuban Economic and Social Socialist Development Model and the Bases of the National Economic and Social Development Plan up to 2030 (PNDES), which provide the principles, objectives, policies and strategic action lines of the nation, which comprise the following dimensions: spatial, environmental, economic, social, cultural, political and institutional. Other territorial and urban planning instruments were also approved by the Council of Ministers at their different levels during the Cuban NUA implementation process, namely: the update of clustered settlements, the National Scheme of Territorial Planning (ENOT), the Territorial Planning Schemes for Mountain Ranges (IPF, CUBA) and the Habitat, the Territorial Planning Scheme of the province of Holguín and its Northern Tourist Region, the Territorial Planning of the Mariel Special Development Zone (ZEDM) and the Urban Planning General Plan (PGOUs) of cities and towns of national concern like: Havana, Santa Clara, Guantánamo, Cárdenas, Trinidad, Baracoa, Viñales, Holguín, Antilla and Caibarien.

- **Build capacities at all levels of government to effectively monitor the implementation of urban development policies**

To monitor the implementation of the NUA in Cuba, was created the Regional Center for the Implementation of the New Urban Agenda based in the city of Santa Clara, Villa Clara province, the first of its kind in the country that will serve the region central of the country. It was inaugurated on October 31, 2019, coinciding with World Cities Day. It had the collaboration of the Provincial Direction of Physical Planning of Villa Clara and the provincial Government, the International Cooperation Project Implementation of strategies for local habitat management at the municipal level (Habitat 2) and the financing of the Swiss Agency for Cooperation and Development (COSUDE). The objective of the Center is to promote spaces for reflection on the state of sustainable and resilient cities and human settlements, guide the updating of urban planning instruments, especially of cities and other human settlements in the region, about the basic right to achieve a adequate housing and a safe and healthy habitat, promote the improvement of Cuban professionals who have the responsibility of designing and conceiving urban spaces and guiding decision-makers towards a better future to contribute to the development of the country. Another Center is being planned, this time of a national character, to monitor the implementation of the NUA in the country and which will provide differentiated attention to the western region. With the leadership of the Institute of Physical Planning, it has financing from COSUDE and technical assistance from UN-Habitat, from the international collaboration project in the approval process in its second phase "Technical assistance for the implementation of the NUA in Cuba". The current challenge is the creation of a similar center for training and monitoring in the eastern region of Cuba and to make the most of the capacities that we already have created and in project with financing, achieving national connectivity. The creation of these centers is only one part of the efforts that the country carries out based on the implementation of the NUA designed worldwide, approved by the United Nations, a policy that Cuba supports with the approval of the State Plan for the implementation of the Cubans NUA.

- **Strengthen all levels of government and the civil society in the collection, disaggregation, and analysis of data**

The Government Information System, upon the Decree-Law 6, premises information control and auditIt provides:

National Statistical and Information Office (ONEI) specific duties to manage the National Statistics System (SNE). The statistical data collection universe is defined, including the National Statistic Information Subsystem (SIEN), Supplementary Statistic Information Subsystem (SIEC) and Territorial Statistic Information Subsystem (SIET), as well as institutional Information Systems. Statistical data collection and processing, and subsequent classification on the basis of its update stage (estimated, preliminary and final). Official statistical data dissemination; Other powers and obligations of the Chair, vice chairs, Secretary and members of the Information Council, as well as issues related to Council meetings, agreements and minutes. Creation of Technical Committees made up of one coordinator, one secretary and other members; definition of their powers and obligations; as well as issued related to meetings, minutes and adopted agreements. Specific functions of technical committees, the appointment of the coordinator and secretary, as well as their membership are established under legal provision by the Head of ONEI, upon the agreement of the Chair of the Government Information Council. Work on Joven Club de Computación y Electrónica to achieve the desired increase in the quality of their services, Achieve greater coverage in 4G mobile telephony. To digitize the 611 planned settlements to comply with the National Cadaster Development Policy.

Part 3: Follow-up and Review

3. Follow-up and Review

All three levels of Government (national, provincial and municipal) lead the implementation of the Cuban NUA State Plan and coordinate secretariats to the Chairman of the Physical Planning Institute (IPF) and chairmans of the Physical Planning of People's Power provincial and municipal administrations, as appropriate (figure 38). The general implementation schedule appears in the roadmap sheet below (Figure 39), which identifies the main milestones from Habitat III (2016) to Habitat IV (2036). The State Plan provides deadlines to fulfill each preliminary action and success indicators that complement those created for SDGs, particularly, SDG 11, which are included in the complementary statistical information system (SIEC). Measurements are carried out annually, pursuant to terms established to ensure national reporting during the first quarter of the year and contribute to country reports on the implementation of the 2030 Agenda.

Additional Information

1. Website: <http://ipf.gob.cu>
2. Social Media

