

Lao People's Democratic Republic Ministry of Public Work and Transport

National Progress Report on the Implementation of the New Urban Agenda

September 2021





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Executive Summary

The New Urban Agenda (NUA) requests that member states carry out follow-up and review actions in a periodic manner in order to track progress, assess impact and ensure its effective and timely implementation, and to warrant accountability and transparency to citizens. It also emphasises that the follow-up and review should be executed in a continual process, taking into account the contributions of government at all levels as well as the contributions of the United Nations system, regional and sub-regional organisations and stakeholders to create and reinforce partnership, exchange urban solutions and mutual learning. Accordingly, this National Progress Report (NPR) has been prepared as the first of its kind for Lao PDR with the joint effort of the Ministry of Public Works and Transport (MPWT) and UN-Habitat.

The Lao NPR is structured in accordance with the Guidelines for Reporting on the Implementation of the New Urban Agenda. The paper consists of three parts. Part 1 addresses: 1) sustainable urban development for social inclusion and ending poverty; 2) sustainable and inclusive urban prosperity and opportunity for all; and 3) environmentally sustainable and resilient urban development. Part 2 describes: 1) building the urban government structure and the establishment of a supportive framework; 2) planning and managing urban spatial development; and 3) means of implementation. Part 3 focuses on the follow-up and review of the NUA.

Stakeholders and Partnerships

This report was prepared by the Department of Housing and Urban Planning (DHUP) on behalf of MPWT and the UN-Habitat office. In addition to the Guidelines for Reporting on the Implementation of the New Urban Agenda (NUA), Guidelines on Urban and Territorial Planning and International Guidelines on Decentralisation and Access to Basic Services for All a number of government official documents have been reviewed. These include laws, by-laws, National Socio-Economic Development Plans (SERP), reports, especially the Sustainable Development Goals (SDGs), Voluntary National Review and newspaper articles. On top of that, various annual reports, project documents, and other reports or official documents published by international organisations such as the Asian Development Bank, and World Bank, as well as other bilateral donors have also been reviewed and referenced for this paper.

Disclaimer:

Although the paper was circulated among the aforementioned partners for their comments and suggestions, some of the opinions expressed in this paper may not necessarily represent their official positions nor the view of MPWT.

COVID-19 Response

The COVID-19 pandemic hit Lao PDR when the first positive case was identified on 24 March 2020. The first wave was short lived and had ended by April of the same year with a total number of just 19 cases. The second wave, however, had a more destructive impact in terms of the transmission rates and the areas at risk: the first of several cases of local transmissions were recorded in April 2021, and as of 30 August 2021, the country had reported 14,816 cases and 14 deaths, with a large concentration of virus carriers in Vientiane Capital, Savannakhet and Champasack while only two out of 18 provinces remain unaffected¹.

The national response to COVID-19 was launched on 2 February, 2020, prior to the discovery of the first case, by the establishment of a taskforce team headed by the Deputy Prime Minister and members from relevant central government ministries. The team was assigned, alongside others, to facilitate the prevention campaign; promote personal hygiene such as hand washing and mandatory face mask wearing in public places; maintain social distancing; establish emergency facilities for early detection and treatment; and provide necessary information on the spread of the disease and required measures to protect residents.

In addition and following the first few cases, a Prime Minister's Order was released on March 29, 2020 to impose more stringent measures. These included the closure of all five international borders, a lockdown with strict movement restrictions on residents for inter-provincial travel, prohibition of mass gatherings of more than 10 people, including business meetings and conferences for government agencies and enterprises. The first lockdown was imposed from 30 March to 3 May 2020, while the second was from 22 April 2021 to 19 July 2021, subject to extension.

An economic support package, a tax holiday and other financial stimulus measures have been introduced for the industries and businesses most affected by the pandemic, while unemployment benefits have been provided for the general population. The Government of Lao PDR has also launched the roll-out of the vaccination scheme with Sputnik V, Sinopharm, Astra Zeneca, Pfizer, J&J vaccines, in partnership with WHO, UNICEF, and donor countries, with an aim to strengthen the collective immunity against the virus. As of 22 August 2021, the vaccination coverage stands at 29.8 % with 2,131,014 residents having received the first doses, while 23.2 % or 1,668,064 residents have been fully vaccinated.

¹ The number and dates of affected cases were based on the publication from the Centre of Information and Education for Health under the Ministry of Health that is available from https://www.covid19.gov.la

Sustainable Development Goals

The Agenda for Sustainable Development 2030 and the Sustainable Development Goals (SDGs) became the integral parts of the Lao PDR development policies following the adoption of the 8th National Socio-Economic Development Plan (NSEDP) 2016 to 2020, which integrated the economic, social and environmental SDG indicators into five-year development outcomes. The Government commitment to SDGs has been underlined by the appointment of a National Steering Committee for SDG implementation by the President in 2017, which comprises the Prime Minister as the Chair and the Ministry of Foreign Affairs, Ministry of Planning and Investment (MPI) as members, and focal points of contact from other relevant ministries. This made Lao PDR one of the first countries to localize SDGs into the national planning framework and additionally adopted its own SDG 18, "Lives safe from unexploded ordinance (UXO)", since Lao PDR is the most heavily bombed country per capita in history.

In July 2017, in addition to the discussion on SDG achievements in the round table meeting, the Government launched a Voluntary National Review (VNR) on the implementation of the 2030 Agenda for Sustainable Development. The VNR was organized by conducting a series of public consultations with the National Assembly, civil society organizations, the private sector, universities, and international NGOs as well as UN agencies and development partners on the SDG progress and challenges. The results have been presented under the outcomes of the 8th NSEDP, including: 1) inclusive economic growth and the reduction of economic vulnerability; 2) human resource development, equal access to education and health care, the protection of the national culture, political and social stability, justice and transparency; 3) the protection of natural resources and the environment, green growth, disaster and climate resilience; and 4) cross-cutting outputs contributing to all outcomes².

Part 1: Transformative Commitments for Sustainable Urban Development

1.1 Sustainable Urban Development for Social Inclusion and Ending Poverty

² The full VNR document is available at United Nation Lao PDR or from https://laopdr.un.org/en/13108-voluntary-national-review-implementation-2030-agenda-sustainable-development.

1.1.1 Social Inclusion and Ending Poverty 1.1.1.1 Eradicate poverty in all its forms

The discussion around poverty eradication in Lao PDR began with the launch of the new economic mechanism of the 1980s. Since then it has been at the forefront of the objectives and ultimate goals of all socioeconomic policies and development programs. In 1996, the first National Workshop on Poverty Alleviation was held and followed by the Rapid Poverty Assessment in the following year. From 2000 to 2002, the Participatory Poverty Assessment was conducted to provide a better understanding of the issues surrounding poverty. The government defines "poverty as the lack of ability to fulfil basic human needs such as food, adequate clothes, housing and access to healthcare, education and transport services" (Prime Minister Instruction, 2001). Following continued discussions and consultations in a number of roundtable meetings, the National Growth and Poverty Eradication Strategy (NGPES) was established in 2002.

NGPES became a key comprehensive framework on poverty eradication especially in the poorer districts of the country. Its long-term development objective was the eradication of mass poverty by 2010, sustaining economic growth at average of around 7 % per year and, by 2020 tripling per-capita income and graduating from the status of least developed country (LDC) (National Growth and Poverty Eradication Strategy, 2003). The NGPES was designed to accelerate a positive trend in poverty reduction by the adoption of a number of strategic development priorities. These included: maintaining an appropriate level of economic growth; enhancing human resource development, the modernization of the social and economic infrastructure; facilitating access to electricity; and promoting economic sectors, especially private businesses and foreign direct investment. These strategic objectives became the general development directions in eight government priority programs including food production, commercial production, shifting cultivation stabilization, infrastructure development, rural development, human resource development, service development and foreign economic relations.

NGPES produced an impressive result by reducing the number of people living under the poverty line by half while the national economy continued to grow by more than 7.5 % per year. However, in 2017, the assessment conducted for the LDC graduation and in preparation for the 8th National Socio-Economic Development Plan (2016-2020) indicated that, despite the rapid GDP growth, inequalities had increased and the poverty reduction rate and domestic consumption had witnessed slower improvements (Ministry of Investment and Planning & United Nations Development Programme, 2017). The assessment report also illustrated that the pace of poverty reduction in the country was not even or balanced. In fact, the regional disparities remained high and the achievement of poverty reduction had been complicated by the increasing poverty gap between rural and urban areas.

Amidst the impact of COVID-19 the poverty alleviation efforts have continued with a more balanced and holistic approach in the 9th National Socio-Economic Development Plan (2021-2025). The targets have been set to reduce the proportion of poor households to less than 5 per cent by 2025 and to increase the number of Development Families and Villages³

³ The threshold criteria for a development family are having safe housing, and a permanent income or job; while the criteria for a development village includes that 1) all families met the threshold criteria of development family, 2) the

to 60 per cent and 70 per cent respectively of the total number of villages in the country⁴. The recommended priority programs for the realization of these targets include: 1) the establishment of at least 2 to 3 growth centres in different areas of each province; 2) the creation of jobs in connection to agricultural productions and rural development; 3) the promotion of cooperative farming with the application of modern production technology; 4) the facilitation of private sector investment in contract farming with the involvement of villagers; and 5) the provision of adequate access to financial resources, information technology, technical know-how in production, and access to internal and international markets (Ministry of Planning and Investment, July 2019). In parallel, the World Bank, through the Poverty Profile and Poverty Assessment 2020 recommends the intervention in five focus areas: 1) improving connectivity in remote areas; 2) promoting crop diversification and commercialization in agricultural production; 3) promoting low-skill employment and easing regulatory restrictions in employment program; 4) fostering education and skills development through supply and demand side measures; and 5) expending safety nets to support households with limited livelihood options (World Bank, Lao PDR Poverty Profile and Poverty Assessment 2020, 2020).

1.1.1.2 Reduce inequality in urban areas by promoting equally share opportunities and benefits

The poverty alleviation efforts in the last 25 years have helped more than half a million people to live above the poverty line and led the country to achieve the Millennium Development Goals (MDG) target of halting extreme poverty. The major drivers for such achievements were the increases in human capital, and access to land and non-farm job creation. However, the regional disparities remained significant with the poverty level in rural areas being higher than in urban areas. In 2013, the rates of poverty were 28.6 per cent for rural areas compared to 10 per cent in urban areas, and the gap increased over the following five years. In this period, inequality also increased, illustrated by a number of indicators such as the Gini coefficient⁵ educational attainment and literacy rate among women and men in poor households (Ministry of Investment and Planning & United Nations Development Programme, 2017).

The reasons behind the uneven progress and achievements towards poverty reduction were the low productivity of the agriculture and farming sectors. Weather-dependent agriculture and its vulnerability to crop failure and limited market access by the farmers, has a causal link to the high poverty levels in rural areas. In terms of inequality, the 5th National Human Development Report suggested that one of the main reasons for increased inequality was the lack of broad-based growth and failure to generate productive

development vision and action plan are combined with spatial development plan, 3) there are connecting roads to nearby towns and villages with a possibility of a year-round commuting. These are parts of the poverty reduction indicators that are adjusted periodically.

⁴ 8421 villages in 2019, according to Lao Statistics Bureau.

⁵ Investopedia: the Gini coefficient is a measure of the distribution of income across a population developed by the Italian statistician Corrado Gini in 1912

employment in sufficient numbers to move the labour force from low productivity agriculture. The economic growth of previous years has not been inclusive or resource sector-driven, and despite a substantial improvement in overall human development and poverty reduction, there has also been a rising gap among different regions and ethnic groups.

While poverty levels differed the inequality equally increased in both urban and rural areas. This may indicate that the commitment for poverty eradication in urban and rural areas by all stakeholders will go a long way toward reaching the conditions needed to break the poverty cycle. In addition, an adoption of the structural transformation, such as a reduction in the economic share of agriculture output and employment; an increase in urban economic activities, industry and services; migration of rural workers and improved conditions for a demographic dividend through labour intensive industrialization will help to shorten the time for reaching the goal. In addition, Lao PDR should improve access to, and quality of public services, create equal opportunities for all citizens to share and participate in the growth process, secure a universal social protection and reduce exposure to unexpected crises (Ministry of Investment and Planning & United Nations Development Programme, 2017).

1.1.1.3 Achieve social inclusion of vulnerable groups (women, youths, older people, people with disabilities, and migrants)

According to the World Bank, social inclusion is "the process of improving the terms on which individuals and groups to take part in society" in particular in "improving the ability, opportunity, and dignity of those disadvantaged on the basis of their identity" (World Bank, Social Inclusion, 2021). The social inclusion of vulnerable groups has been a priority objective of all poverty reduction projects in recent years in the Lao PDR. It has been viewed as one of the economic determinants for radical poverty reduction, sustainable development, economic efficiency and a compliance with the human rights requirements (Poverty Reduction Fund, 2019).

Accordingly, in addition to the efforts for improving the livelihood of the poor, incountry poverty reduction efforts have been expanded to cover a variety of social dimensions. The Poverty Reduction Fund has extensively focused on community development by promoting local capacity and nurturing public participation in decision making, village planning, gender equity, equal rights and opportunities for the disadvantaged, ethnic minorities and migrant groups. From 2017 to 2019, around 1200 such projects and subprojects were approved in 43 poor districts in 10 provinces, with the cumulative numbers of beneficiaries exceeding 860,000 people, including about 50 per cent women and around 84 per cent ethnic minorities.

The social inclusion of people with disabilities is also supported by a number of laws and policies. These include the Constitution, Prime Ministerial Decree No.178/1993, No.138/1995, No.18/1995, Decree on Social Security Scheme for Enterprise Employees of 2000, and the Labour Code of 2006 that are also reflected in five-year National Socio-Economic Development Plan. In 1993, the Community-Based Rehabilitation (CBR) was first introduced and developed into a strategy for the rehabilitation, equalization and social integration of disabled people and their families (ILO, 2009). In addition to relevant

government line ministries and agencies, there are also three main organizations accountable for people with disabilities: Lao National Disabled People's Association (LNDPA), Lao Disabled Women's Development Centre (LDWDC), and Lao Association of the Blind.

1.1.2 Access to Adequate Housing

1.1.2.1 Ensure access to adequate and affordable housing

The 2015 population census revealed the house ownership rate of 86% among the residents of Lao PDR, while the rest 10.5% either rented or lived in houses belonging to their relatives. However, there was no clarification regarding housing quality or types. In order to accelerate poverty eradication for individual households, the Government issued Decree No. 348/GOV on 16 November, 2017 as a part of a rural development plan that promoted the establishment of growth centers in cluster rural villages or the small towns in rural areas. By using the established indicator for safe housing that include a strong structure, durable floor, and roof materials with operating time span more than twenty years, the Department of Rural and Cooperative Department of the Ministry of Agriculture and Forestry carried out a field survey and found that 99.7% of the total 1,239,702 households undertook the survey, 10% were evaluated not meeting the threshold criteria.

During the inter-ministerial meeting held in March 2021, the precise and practical uses of the criteria were questioned and consequently a new proposal for adequate housing has been prepared which includes a few more elements. These include: (i) ownership (own or receive the use rights, renting at a price of no more than 30 per cent of household income per month), (ii) habitability (the house area is divided into functional zones: bed room, dayroom, kitchen, toilet and other by which the daily life and performance of cultural activities are secured), (iii) adequate structure (made from wood or steel or bricks or steel reinforced concrete that can withstand strong winds, rain and sun light), (iv) infrastructure and services connectivity (connected to electricity, safe water, sewerage, drainage system (natural or planned) and access to a road network), (v) climate resilient (not located in areas under risk from flooding, landslides etc.).

The government housing scheme has been on hold since the suspension of Decree No.194 that regulated the transfer of state-owned houses to public servants. The most recent such program was a project titled "Rehabilitation and Reconstruction of Housing Sector in Flood Affected Areas of Lao PDR", implemented by UN-Habitat Lao Country Office in partnership with DHUP and provincial DPWT with the financial support of the Government of Japan. The project objectives were to provide permanent housing and community-based piped water systems to the poorest families in Attapeu and Oudomxay, who lost their houses and livelihoods due to the 2018 natural disaster. All houses were constructed on the principles of "Building Back Better" that seek to enhance climate resilience. Particularly, the houses in Attapeu were built with elevated floors, modular extensions and solid foundations to withstand the recurring floods in the area. A similar housing construction scheme for flood

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⁶ The new poverty indicators are under an ongoing finalization

victims from the dam collapse in 2018 at a cost of US\$ 24.5 million, provided 505 new homes to the displaced people in 2020. This was at a total cost of US\$ 24.5 million. Another 195 units are expected to be handed over during 2021 (Thanabouasy, 2021).

1.1.2.2 Ensure access to sustainable housing finance options

Housing finance options have been limited, especially for the poor who lack any form of tangible assets for collateral guarantee. The home loans from a majority of commercial banks are available in all provinces with the limitation on loan amount ranging from 70 per cent to full construction cost of the house and the repayment period up to 50 years, while monthly or yearly instalments are set in accordance with the specificity and conditions of the banks. The interest rates differ among the total 29 commercial banks operating in the country. For example, the long-term loan of over 60 months from one of the most reputable bank, Banque Pour Le Commerce Exterieur Lao Public (BCEL), is provided with an interest rate of 10.5 per cent for local currency and 10.25 per cent for US dollars The information about such financial options can be easily accessed by the citizens through various commercial advertising channels but eligible clients might be limited to only middle and upper-level income groups.

The only alternative option for the poor group are micro credit schemes although they do not seem to have specific target in providing loans for housing construction. Micro credit financial arrangements were first introduced in Lao PDR in the 1990s when the development agencies established village-based credit schemes and revolving funds (Village Banks) (LMFA, 2021). In 2008, the Bank of the Lao PDR, the regulatory and supervisory agency, agreed to divide this sector of services into Deposit Taking (DTMFI), Non-Deposit Taking (NDTMFI) Micro Finance Institutions and Saving & Credit Unions (SCUs). In 2017, there were 123 MFIs in the country with around 247,000 clients in which 25% were active borrowers with a total loan portfolio of about US \$88 million.

The lending procedures under such financial schemes do not require any collateral and are hence subject to much less complicated bureaucratic formality compared to that of commercial banks. The residents eligible for accessing such financial support merely need to become members by signing up and opening a savings account; provide a criminal record; pass the legal age; and adhere to the Village Bank's Regulations⁷. Credit appraisal is much easier than at a commercial bank. Before disbursing a credit, the village bank committee will make an appraisal by answering four main questions on conformity, willingness and ability to fulfil credit conditions and the benefit of taking the loan. So far, the Lao Microfinance Association (MFA) has continued to operate in the country and implement its National Financial Strategy 2018-2025 action plan. Its 2030 vision is to take part in national poverty eradication efforts.

⁷ Bank regulations include: to attend the General Assembly meeting, to cast their vote at elections and other votes, and apply for no more than one loan at the time. The ceiling for individual loans was set at between 2 to 5 million in local currency (equivalent to USD 250-630 in 2020) with the loan terms ranging from 6 to 12 months and the interest rate between 1 and 3 per cent per month depending on the loan type (emergency, consumption, income generating, trading).

1.1.2.3 Establish security of tenure

The security of tenure in Lao PDR has been prevalent and associated with the right of land ownership that has undergone several radical changes in the last 50 years. After 1975, the land was vested under the common property of the state and any form of sales or acquisitions by the individual was not legally permitted. The new economic mechanism towards a market economy at the end of the 1980s and the adoption of the new national constitution in 1991 triggered a profound transformation in property ownership rights. The move was underpinned by the launch of the Land Titling Project in 1996 under the support of the World Bank Group with the goal to extend security land ownership and develop land administration and the land valuation system (World Bank Group, Corporation Web site, 1996). The rights of land tenure by individuals, community, state and individual entities have since been protected by the Land Law of 2019 together with a number of previous legal documents, Ministerial Instruction 564/NLMA (2007) on Adjudication of Land Occupation Right for Issue of Land Titles, Ministerial Recommendation 6030/MONRE (2014) on land registration and issuance of Land Titles, and Decree 88/PM (2008) on the implementation of the Land Law (2003).

In 2016, following a decade of support in land use planning, land registration and land titling in Lao PDR, the German Agency for International Cooperation (GIZ) conducted an impact study in two Northern provinces. The study was developed to foster a better understanding on land management, its trends and people's perception in tenure security. Combining two basic approaches to impact evaluation, the study asked respondents to compare the situation prior to and after the project intervention and test several assumptions on how the past interventions contribute to specific changes. In addition to other findings, the study pointed out that the land registration and land titling contribute to greater perceived tenure security among target community; an increase in the willingness of villages to invest in their land; improved access to loans; improved perceived tenure security; and the perception of tenure security increases in step with the comprehensiveness of provided support.

While the study area was restricted to only two provinces, the evidence from other provinces (including urban areas of larger provinces) indicated the same pattern of development trend. The security of tenure, especially on land and housing is being regarded as one of the determinant factors for failure or success in the poverty reduction effort. Lao PDR is expected to complete its land registration and titling by 2030.

1.1.2.4 Establish slum upgrading programmes

Due to it having the lowest population density in the region Lao PDR does not officially have informal houses or slums like those in other regions of the world. The "slums" in local perception often refer to congested areas with more than 70 per cent building coverage ratio in a land parcel, lack of open areas for greenery, lack of appropriate sanitation facilities and drainage system, irregular road network, narrow access roads and lack of 24-

hour running water. The houses are generally constructed to acceptable building standards and with adequate construction materials, sufficient living areas, and the security of tenure in place. Having said that, overcrowded rental block houses can be found in some informal commercial areas.

Urban rehabilitation projects began in the 1990s in the most crowded area of the capital city, Vientiane, and these have been extended all over the country with funding support in the form of loans, grants from international financial organisations and bilateral donors. From 2016 the projects have been implemented under the investment programs of Greater Mekong Sub-region, North-South, North-West economic corridor and ongoing liveable city projects in three secondary towns. The main objectives of these projects are to improve the infrastructure (e.g. access roads, drainage, sewerage), environment conditions (e.g. waste collection and disposal, sanitation improvement, services delivery (e.g. energy and water supplies), as well as the capacity building and community livelihood in crowded areas of cities.

Despite a success in infrastructure and environmental improvement in many cities, urban sprawl as a result of weak urban planning and implementation remained challenging. Uncontrolled housing constructions in the outskirts of urban centres by rural migrants and the groups of residents who would like to avoid crowded areas in the central part of cities has been seen in cities for several decades despite an intensive effort in development regulations. Because of the absence of a proper planning, there are no any assurances to prevent the possible transformation of these areas into slums that may require more resources for renovation and rehabilitation.

1.1.3 Access to Basic Services

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

The construction of water supply systems in urban areas has always been a supplementary part of urban development projects in Lao PDR. According to the Water Supply Sector Work Plan 2021-2025 of MPWT, as of 2019, 76 per cent of urban households had connections to water supply systems, an increase of 5 per cent compared to 2018. The construction of water treatment plants up to this time increased to 169 locations covering 121 towns, and the remaining 27 towns are either under ongoing construction or in the planning stage. The target services delivery of water to the urban population is 85 per cent by 2025 and 90 per cent by 2030. The funding for water supplies in large rural communities in 12 districts can be expected until 2025 through the support of the World Bank, 4 districts by KfW Development Bank and in 189 villages in the three southern provinces of Sekong, Saravane and Attapeu with the assistance of UN-Habitat. In addition, in 2017 the proportion of urban houses supplied with flush-toilets was 91 per cent⁸. Hand washing with soap, social distancing, face masks and other personal hygiene issues have been actively promoted as

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⁸ This may be in discrepancy with information from other sources

a part of COVID-19 prevention campaigns since the beginning of 2020. The target percentage of residents with access to safe and improved sanitation is to reach 95 per cent by 2025 and 100%t by 2030. The amount of discharged waster unmet by the national standards is also expected to have been reduced by 50% and the amount of recycled water to increase in both volume and quality.

On the contrary, solid waste management has seen a slow progress while the target of full waste collection⁹ and disposal has been ambitiously set for the year 2030. From 1999 until recently controlled landfills have been designed and constructed in all provincial capitals and semi-controlled landfills have been completed or are undergoing work in some districts. Currently it has been reported that the coverage of waste collection services ranges from around 60 per cent in the capital and in secondary towns to 100 per cent in smaller townships of northern and southern provinces. On average, the waste production in the country is around 0.9 kg per day per capita of which only just over half ends up in the landfills¹⁰ irrespective of whether it comes from large or small towns. Numerous efforts have been put into the public campaign for awareness raising on reducing waste at source by segregation, reduction, reusing, recycling and regeneration of waste, and the waste recycle plants have been built to lay the foundation for the accomplishment of the 2030 target in the capital and secondary towns.

Considering that the access to safe drinking water, sanitation and solid waste disposal have significantly improved over the last few decades, sector-specific challenges also deserve close attention. The shortage of investment funds as result of COVID-19 and the economic slowdown may hamper the progress of relevant SDG goals. In addition, in order to effectively and efficiently secure and use the available resources, it is critical to enhance local capacity in integrating the supply of water, sanitation services and solid waste management with strengthened urban planning and management, as well as financial mobilization from local sources.

1.2 Sustainable and Inclusive Urban Prosperity and Opportunity for All

1.2.1 Inclusive Urban Economy

1.2.1.1 Support small-and medium-sized enterprises

⁹ Probably in terms of services area coverage

¹⁰ A more recent report sighted a lower figure

The Lao Bureau of Statistics¹¹ classifies small enterprises as those that employ from 1 to 9 workers, medium from 10 to 99 while larger ones are those that can offer jobs to more than 100 people. In 2019 Small and Medium Enterprises (SMEs) in Lao PDR accounted for 99 per cent of all registered firms with the employment rate accounting for 86 per cent of the total workforce in the country. Improving the performance and prospects of this sector is therefore critically important for the livelihoods of the people (World Bank Group, 2019). The National Socio-Economic Development Plan 2016-2020 envisioned a shift away from heavy reliance on resource exploitation to a more diversified economy led by agriculture, services, tourism and manufacturing that had a larger share of SMEs. The plan identified a key element for the development of competitive and innovative SMEs by setting three immediate objectives: 1) building the capacity of local institutions in order to deliver needed business services to the SME sector; 2) developing SME skills and capacity to access finance; and 3) setting up a peer network in which SMEs can share experiences and capacity. Since then, these objectives have been realized through supporting local business development services, providing first-hand support to SMEs in the capital city and other secondary towns, and in partnership, consultation and participation of financial institutions, improve the SMEs' skills in business management and planning, financial management and planning, marketing and sales, laws and regulations, sector specific operations, and technology (ILO, n.d.).

The informal sector represents a substantial share of the national economy, despite being regarded as one of major concerns and obstacles to economic growth due to lack of compliance with the regulations in power (World Bank Group, 2019). In the capital city and in Pakse, informal or unregistered firms account for about 78.5 per cent of non-agricultural employment. It is evident that the informal sector plays an important role particularly in manufacturing, construction, trade and services which are more favourable and accessible to the poor in terms of job opportunities and formal bureaucratic restrictions. However, a large informal economy may pose a problem on low productivity and a broadbased long term economic development, and it may bring a challenge to the Government to transform the sector into formal businesses without an extra burden to the people engaged in the sector.

In addition, the Association of South East Asian Nations (ASEAN) report on Small & Medium Enterprises Development Policies in Laos indicated a number of challenges to be tackled for the sake of SME promotion opportunities. Firstly, insufficient capital and lack of access to formal financing should be resolved to allow SME investment expansion. Secondly, SME owner and worker skills and knowledge in business operations and production technology must be enhanced. Thirdly, SMEs should break through their market restrictions of only domestic consumers and increase their competition capacity to reach wider international customers, and finally, an adequate SME database should be made available with the support either from government or international agencies.

1.2.1.2 Promote an enabling, fair and responsible environment for business and innovation.

The World Bank *Doing Business* study report¹² which provides an objective basis for understanding and improving the regulatory environment for business around the world, ranked Lao PDR 159 out of 189 in 2014 and 134 in 2016 in the ease of doing business scale.

¹¹ Changed from National Statistical Centre in 2010.

¹² Available from https://www.doingbusiness.org/en/doingbusiness

With an objective to improve the business environment, the 8th National Socio-Economic Development Plan (2016-2020) includes priority actions to reach a two-digit ranking by creating all possible conditions for competitive advantage for local entrepreneurs and business ventures. Accordingly, in February 2018, the Prime Minister issued Order No 02 on the improvement of regulatory and coordination mechanisms for business set-up and operating in Lao PDR. Ten central government ministries were called to form a taskforce team with a central role in coordination taken by MPI and report work progress to the Prime Minister on a monthly or quarterly basis.

The mandates of these ten ministries are to take actions to reduce unnecessary bureaucratic procedures, red tape and other impediments in the business life cycle. Based on the *Doing Business* recommendations, ten quantitative indicators have been embedded in various dimensions of the reform tasks. These include: regulations for starting a business, dealing with construction permits, receiving electricity, registering property, receiving credit, protecting minority investors, paying taxes, cross border trading, enforcing contracts and resolving insolvency. The Doing Business Reform has a long way to go, yet it provides a promising initial result by reducing the time for contact with the relevant authorities to three working days in areas such as business registration, issuance of corporate tax file numbers and so on. The One Stop Service Window is now functional in provincial divisions of Planning and Investment as well as at ministerial level. Lastly, the business registration and submission of investment proposal is now available by online.

The amended Law on Investment Promotion (LIP), which became effective in April 2017, increased the support for both domestic and international investors by simplifying business applications, and licensing, as well as reducing the time for government approval. The new LIP provides special incentives for a range of priority sectors, including advancing technology, scientific research, research and development, ecotourism, education and training centres, construction of modern hospitals and medical equipment, investment, services, and development of public infrastructure in city centres, microfinance and modern department stores. The incentives will be provided in accordance with geographic location. The investment in Zone 1 and Zone 2¹³ will receive a profit tax exemption of 4 to 15 years. The LIP also allows for zero VAT and tariff exemptions for vehicles and raw materials imported for construction and manufacturing. Additionally it includes the use of non-natural domestic material use for both finished and semi-finished products for export. Eligible companies will be allowed to carry forward the losses for three consecutive accounting years, formalize land leases, receive concession on rental fees, and set exemption time spans and tax holidays.

1.2.2 Sustainable Prosperity for all1.2.2.1 Develop urban-rural linkages to maximize productivity

More than a half of the territory of Lao PDR is mountainous. The population is scattered in small groups, distanced based on the availability of arable land and with just under 40 per cent of the population living in cities the needs for food supply from rural areas

¹³ Zone 1 is poor and remote areas that lack infrastructure and facilities to support investments and Zone 2 are locations where the infrastructure and facilities for investment support are accessible.

and from abroad are paramount. As the import of some types of products from abroad has been affected as a result of border closing and self-quarantine during the COVID-19 outbreak the self-reliance on agricultural products and consumer goods became the alternative option and urban-rural linkages, especially in the supply of agricultural products, became predominant topic of public discussion and caught the social attention more than before.

In the past years the improvement of connection roads between districts, provincial capitals and the capital city constituted the top priority of rural-urban linkages. In 2019 around 30,000 km of new road were constructed in addition to 28,738 km completed by 2000 with the annual budget of 20 to 40 per cent of the GDP (Ministry of Public Works and Transport, 2020). From 2016 to 2020, the Ministry carried out 44 development programs with the aim of reducing development disparities between urban centres and rural hinterland, lessen ecological, environmental and social pressure on existing urban areas and achieve balanced regional and local development. Similarly, in district and provincial towns a number of infrastructure projects were implemented with the objectives to improve the provision of services and market place for agricultural products from nearby rural villages as well as to offering seasonal or long-term job opportunities for rural workers.

On the production side the emphasis was placed on improving agricultural productivity, facilitating trade and agro-processing industry, while the security supply of the commercial commodities was placed on: 1) cultivation of coffee, vegetable, fruit trees, flowers, cool-weather crops, 2) reservoir fisheries and aquaculture, 3) livestock, and 4) crops that are suitable to upland and mountainous conditions (8th NSEDP 2016-2020). The Agricultural Development Vision 2030 envisaged national food security through sustainable agriculture that will at the same time bring about a spill over impact on creating employment, generating income, decreasing the gaps between urban and rural areas, and integrating rural development.

1.3 Environmentally Sustainable and Resilient Urban Development

1.3.1 Resilience, Mitigation and adaptation of Cities and Human Settlement

1.3.1.1 Implement climate change mitigation and adaption actions

Following the ratification of the United Nations Framework Convention on Climate Change (UNFCCC) in 1995 and the Kyoto Protocol in 2003 Lao PDR completed the Initial National Communication (INC) in 2000 and the Second National Commission (SNC) in 2011. In May 2009 the country released the National Adaptation Plan of Action (NAPA) with 45 priority projects in four sectors for climate change adaptation: agriculture, forestry, water and water resources, and health (UN Habitat, 2010). In September 2016 the country ratified the Paris Agreement and implemented the Intended Nationally Determined Contribution to reduce greenhouse gas emissions afterward. These efforts were complemented by the adoption of a number of new legal and regulatory frameworks, institutional arrangements and ecological sustainability strategies. When the National Steering Committee on Climate Change (NSCCC) was established in 2008, the Eight Technical Working Groups were formed to assess the impact and outline priority actions for climate adaptation and mitigation.

The Strategies on Climate Change of Lao PDR outlines both adaptation and mitigation measures in seven key economic sectors: agriculture and food security, forestry and land use change; water resources, energy and transport, industry, urban development and public health. On the adaptation side, there are options that are commonly recommended for all sectors, for example mainstreaming climate change into sectorial policy, strategies and actions; enhancing information dissemination and technical support; and improving cooperation mechanisms. Meanwhile, mitigation emphasizes cutting the production of greenhouse gases such as methane emissions, and carbon dioxide.

While agricultural products play an important role in food security with a significant implication on the national poverty alleviation efforts, they are highly climate-dependent and special attention is needed. On the adaptive side the options include 1) mainstreaming climate change into sector policy, strategies and actions; 2) enhancing productivity through conservation; 3) improving and monitoring water resources and supply; 4) strengthening farmers' financial instruments and development capacity; 5) undertaking vulnerability research at both macro-scale and village level; 6) enhancing information dissemination and technical support, and 7) improving cooperation mechanism. Mitigation options may include reduction of methane emissions from paddy fields; from enteric fermentation, from livestock manure and the application of biogas digesters for electricity and bio-ethanol production.

1.3.2 Build urban resilience through quality infrastructure and spatial planning

After the ratification of the United Nations Framework Convention on Climate Change, urban planning and development in Lao PDR has changed course to emphasize natural disaster risks as both urban areas and rural villages have been exposed to seasonal flooding, erosion and landslides more frequently than in the past. Based on the recommendations of the National Strategy on Climate Change, urban design and development shall include the following adaptation strategies: 1) climate proofed alternative development options; 2) adoption of climate proofed policy and action plans; 3) climate risk assessments before the approval of infrastructure construction projects; 4) undertaking

structural measures to prevent vulnerable infrastructure assets; and 5) the adoption of non-stationary hydrologic building codes for infrastructure and buildings, while the service delivery, operation & maintenance (O&M) of infrastructure and facilities in existing urban areas various mitigation measures must be actively promoted. Since then a number of projects have been put in place. For example, the 3Rs (reduce, reuse and recycling), prohibition of open burning, waste segregation at source or transfer stations, and composting of organic waste have been enforced in villages. At the city level the emphasis has been on sludge treatment, construction of sanitary landfill sites, low emission transport mode, and private and international partnerships in financial mechanisms to find ways for reducing the greenhouse emissions.

Another significant milestone was the introduction, in 2015, of a guideline on mainstreaming disaster risks and climate change impacts in urban planning processes. In addition to the scope of data collection, data analysis, and design of the traditional master plan and procedures, the guideline incorporated the requirements and provided recommendations on: 1) sources of information about type, magnitude and characteristics of natural disaster risks exposed to particular areas of the country, 2) hazard and natural risk identification during the planning of area surveying, 3) risk analysis, and 4) hazard maps which can give information on baseline data, hazards and elements of risk, vulnerability and capacity, exposure and risks within the boundary of planning areas.

Furthermore, a checklist for Resilient Urban Development was added to the above mentioned guidelines, supported by the 2015-2020 program of Association of Southeast Asian Nations Agreement on Disaster Management and Emergency Response (AADMER) and JICA Project on Building Disaster and Climate Resilient Cities in ASEAN, The checklist was structured based on Priorities for Actions of Sendai Framework for Disaster Risk Reduction 2015-2030 and divided into four parts: 1) understanding disaster risk, 2) investing in resilience urban development, 3) enhancing disaster preparedness for effective response and to Build Back Better and 4) realizing efficient administration of resilient urban planning and development. In total, 114 indicators were defined where the lists 5, 11, 32, and 66 are connected respectively to the first, second, third and fourth priority actions.

1.4 Sustainable Management and Use of Natural Resources

1.4.1 Drive resource conservation and waste reduction, reuse, and recycling

A significant amount of material resources and management effort have been dedicated to solid waste management in urban areas in the last three decades with support from both international financial organizations and bilateral donor countries. However, waste

collection and disposal have remained a major public concern and one of the biggest national challenges in environmental protection in cities and rural communities, as industrial plastic and metal have gradually driven out natural products, while the urban population has continued to grow.

On average, an urban resident produces about 0.9 kg of waste daily, and not all of it is collected and disposed of at land fill sites. In the capital city the waste disposed at the landfill site increased by about 50 per cent from 2015 to 2019 while the population grew at only 10 per cent from around 850,000 to 930,000 (JICA, 2021). This is presumably due to the changes in people's consumption behaviour following the economic improvement, increases in the number of tourists an industrial development. In addition, the waste management system has been set up for many years with the services managed not only the public municipal agencies but also with the participation of the private sector, which may indicate the emergence of the service market. However, there is still a lot of room for improvement in city waste management system and actions need to be taken for improving the effectiveness of collection to prevent wastes being scattered in vacant land areas. In the meantime, landfill operation & maintenance (O&M) must be enhanced to prevent them from turning into the open dumping sites that is now evidenced in all cities.

The rapid increase of waste in the dumping site and elsewhere is due to a number of factors. Currently waste handling practices in all cities are based on a "collect and dispose only" approach that overlooks significant opportunities for turning waste into resources. This, in turn, means: there is potential to adopt a paradigm change from a waste management to a resource management approach (Global Green Growth Institute (GGGI), 2018). The principles of Reduce, Reuse, and Recycle (3R) have been widely promoted in the recent decades but the lack of concrete action plans supported by policies or regulations at both national and city levels have hindered the deployment of a waste-to-resources approach. The only market for recyclable materials such as plastics, cardboard and metals, is to export to neighbouring countries while the transport cost has a reverse effect on the purchasing price with little to no incentive for residents to practice waste segregation for sales. For example, in the Capital City of Vientiane, the buying price at vendor shops for plastic bottles is at around US\$ 0.1 per kilogram while paper and cardboard ranges from US\$ 0.01 to US\$ 0.05 compared to about US\$7 for a kilogram of meat.

In order to remove the barriers and actively promote the waste-to-resources approach in Laos, as part of its green city program in Vientiane, GGGI recommends a number of intervention actions. At policy and regulatory levels, among others, a city-wide strategy for the management of solid waste should be developed with the enforcement of fines for waste generators that refuse to adopt segregation; and with the introduction of responsibilities in utilizing materials that can be reused and recycled to industry. Other intervention areas include options for biodegradable organic waste, such as composting, and anaerobic digestion; adoption of waste bank concepts, deployment of material recovery facilities and undifferentiated waste (provision of decentralized waste collection services through micro-enterprises).

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

As a member of ASEAN, the Government endorsed the ASEAN Smart City Framework (ASCF) in July 2018 in agreement with the heads of other ASEAN states which led to the establishment of the ASEAN Smart Cities Network (ASCN) with members from 26 cities

in the first batch. The ASCN primary goal will be to improve the lives of its people, promote business opportunities and innovation in smart development by using technology and all other means. At a strategic level the ASEAN smart city will strive for a balance in development between a competitive economy, sustainable environment, and high quality of life. At city level, these strategic outcomes will be realised through the implementation of Integrated Master Planning and Development that will enable the government to create and manage urban domains in a balance and coordinated manner. In addition, Dynamic and Adaptive Urban Governance will also in need for engaging diverse stakeholders in decision making and management of resources. The ASCF set the development focus areas to cover various aspects such as civil and social, health and well-being, safety and security, quality environment, built infrastructure, and industry and innovation. At the same time technological and digital solutions will be applied as the enabling tools for realizing a smart city, in addition to strengthening partnerships and resource mobilization.

By and large the technological and digital solutions may play a decisive role in the advancement of the smart city in line with the ASCF. Moreover, the national priority actions have been set to gradually accomplish: 1) the use of geospatial databases in the monitoring and planning of urban services and other aspects in the city, 2) spatial data information systems; 3) data analytics to support operations, 4) securing city, national and international connected ICT networks, 5) automation, and 6) e-payment and digital platforms. To move forward this development option, the ADB ASEAN Smart Cities Initiative (ASCI) with support from the Government of Australia was launched in April 2019 with the creation of the ASEAN Australia Smart Cities Trust Fund (AASCTF). The ASCI aims to support the development of city systems in smart and sustainable ways, including the creation of competitive, resilient and well-connected communities, green infrastructure, water governance, renewable energy, innovative technology and data analytics.

The National Urban Sector Strategies for 2030 proposed that MPWT, among others, set a target to establish the Smart Urban Planning Information System (UPIS) to provide the integrated management of overall processes of urban planning and land use by computerizing planning information and data. Through the creation of a geospatial database, the system will also serve as an urban planning and monitoring system that will lead to public accessibility to planning and other relevant management information, as well as information on the actual status and changes to land and urban development. Finally, the most important goal of the UPIS will be to introduce web-portal and mobile application services accessible by all groups of the residents that will enable them to exercise their civic responsibility and participation in fostering responsive urban governance and inclusive economic growth.

Part 2: Effective Implementation

2.1 Building the Urban Governance Structure: Establishing a Supportive Framework

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

The attempt for decentralization of urban governance in Lao PDR has its roots in the start of the Vientiane Integrated Urban Development project in 1998 with the financial support of Asian Development Bank. The preparation was preceded by the creation of Vientiane Urban Development and Management Committee (VUMDC) with a mission to transform itself into an autonomous and independent municipal organization dedicated to the management of urban infrastructure and services (ADB, 2002). In the following year Vientiane Urban Development Administration Authority (VUDAA) was created to oversee the rehabilitation and upgrading of urban infrastructure and facilitating urban services in waste collection and disposal, town cleanliness, sanitation and other tasks in urban environment improvement as well as the community livelihood and wellbeing improvement. VUDAA had five divisions to carry out routine infrastructure maintenance and services delivery. The Technical and Urban Planning Division (TUPD) was responsible for O&M of roads within their jurisdiction and the Environmental and Sanitation Division (ESD) was assigned to execute solid waste management, sanitation, road cleaning, flower watering, public park keeping and other tasks.

The urban improvement project, supplemented by decentralization efforts of the urban government, was replicated in four secondary towns from 2002 to 2010, and completed in 11 capital provincial towns and 1 district town with an economic potential in tourism. The project outcomes received strong support from both the public and local administration, particularly the physical improvement of roads, drainage and other infrastructure repairs combined with the construction of landfill and solid waste management. However, the attempt for financial autonomy and independent administrative status was hampered by the challenge of cost recovery in operation and other legal and organization issues. Consequently, the VUDAA of Vientiane Capital and UDAA of provincial capitals have been now transformed into a semi-autonomous service units for provincial authorities.

Despite the fact that the process of decentralization has faced diverse challenges and obstacles, it has not completely ceased and is now continuing to look for a more economical and socially acceptable way forward. The Government's four breakthrough strategies (in new ways of thinking, human resource development, governance and

management, and poverty eradication) have led to the enforcement of the so-called "Samsang" or "three levels of decentralization" which further promotes the transfer of power to local administrations. In the Samsang model, the economic and social development action plans will set the priorities which will be implemented at village level according to local needs, while development planning will be under the district and the strategic development direction will be implemented at the provincial level.

2.2 Planning and Managing Urban Spatial Development

2.2.1 Implement integrated and balanced territorial development policies

The spatial planning and development in Lao PDR is guided by the national Law on Urban Planning of 1999 and the amended version of 2018. The law specifies seven general principles of work scope for territorial and city planning with the objectives to assure: 1) the functions of urban areas as political, administrative, economic, socio-cultural and service centres; 2) sustainable human settlements; 3) development directed by vision, goal, and strategies and supported by action plans and development programmes; 4) protection of environment, cultural and architectural identity and landscape; 5) land use in compliance with the basic principles of the national territorial plan and the needs of the population; 6) comprehensive, safe, convenient, and connected infrastructure, and 7) integrated, legitimate, fair and transparent development (Article 5).

However, the land use in territorial planning at the national scale must also be abided by the land allocation defined by the Resolution of the National Assembly No. 098 dated August 28, 2018. The resolution classifies the national land into two main categories: conservation and development zones. The former includes forest and conservation national parks with 70 per cent of the total area targeted for national territory coverage by 2030 while the other 30 per cent, is available for development purposes. The land reserved for development purposes is further divided into two sub-categories: agricultural land shall occupy 19 per cent while the other 11 per cent is given for other development objectives such as settlement, infrastructure, and others.

In Lao PDR, the international recommendations have been applied as widely accepted standards of urban land use in town and community planning, while the national standard is undergoing preparation process. The Guidelines on Mainstreaming the Risks from Natural Disaster and Climate change into Urban Planning¹⁴ recommended the land allocation in a community or township in the following proportion: 61 to 68 per cent for residential purposes, 8 to 12 per cent for public facilities, 10 to 15 per cent for greenery (and/or recreation) and sports facilities, and 12 to 15 per cent for roads, parking and open space alongside them. At the city level the land allocation is also determined in the same way with a greater variety of categories while the surface ratio will depend on the specific conditions and characteristics of a particular town. In addition to the space allocation, the planning approach has also been gradually shifted from the traditional master plan concepts of the last decade to a more integrated manner or the so-called "one city one plan". The one city one plan approach encompasses the involvement of

¹⁴ The guidelines were prepared in 2012 by the Department of Housing and Urban Planning with support from the Ministry of Planning and Investment, and the World Bank.

all relevant government agencies, the private sector and residents for consultation and comments in all stages of planning with the aim to promote social development and inclusion, sustainable economic growth and environment protection.

2.2.2 Integrate housing into urban development plans

The SDG Indicator 11.1.1 stresses that the nature of the housing sector with its institutions, laws and regulations is one that touches every single aspect of the economy of a country and has interface with practically every social development sector. This is also highlighted in the national legislation through the Law on Urban Planning. The law prescribes the detailed urban plan to indicate the land boundary for various functional uses and the residential areas, which, in practice, are the location of houses of various types –detached, semi-detached, low, medium height, and high rise – should be presented in the plan in addition to other urban elements. Additionally, some design standards may require a more explicit and diligent consideration of the location and land use zone, with certain principles of design that may be recommended. The recommendations may include, for example, that the area should be connected to the existing natural land to support and enhance ecosystems; apply a mix land uses and be connected to different transport choices; be in compact urban form and reasonable density; provide a mix of parks and community space, housing opportunities and choices; and be in a resilient, safe and secure neighbourhood, with a unique identity¹⁵.

Although such a design concept is yet to be fully realized in all urban planning in the country, it has become the standard guideline for the housing planning of today. In addition, for the purpose of cost-effective investment and the rational use of resources the land allocation for housing in a planning area is recommended to be divided into immediate and long-term construction phases. This means that the housing constructions that will be shown in the priority investment projects. Programs for urban development shall be estimated based on the actual needs of the existing population. The long-term needs projected in future urban expansion in which the designated land will be included, will be either in the preservation zone or urban development control areas. Such a way of integrating housing into urban planning had its start prior to the 1990s, when the public housing scheme was of utmost important development priority. A good example of this was the Phienglouang urban development plan, which was at the time designed for the tentative relocation of the capital city located at around 300 km north of Vientiane. The third capital city master plan approved in 1999 also partially adopted this design principle in an area of around 200 hectares at the outskirts of the city centre.

The positive result of the planned cities has led to a paradigm shift in urban development from a disorderly development to a more sustainable urban form with an improved quality of city environment. However, a great challenge remains and requires a prompt solution. On the one hand, weak law enforcement in land management and land market control have brought about unwanted land speculation, followed by illegal land privatization at the cost of public assets, which resulted in an excessive amount of resources being required for land compensation when a comprehensive development is implemented. On the other hand, the mismanagement in urban planning and implementation allowed the urban sprawl and

¹⁵ This is the neighborhood planning and design standard applied in Red Deer, Canada but it commonly found in spatial planning elsewhere.

uncontrolled settlement to take place at a fast pace. Such development trends have been viewed as a major threat and impediment for an inclusive urban development and the access to adequate housing by all, unless corrective action is put in place.

2.2.3 Include culture as a priority component of urban planning

Lao PDR is a country with a rich and diverse traditional. Cultural events regularly take place that involve the gathering of a large number of visitors at home or in community venues such as temples, river banks and others. In the process of urban planning, these elements must be taken into account and highlighted for public consultation. Article 54 of the Urban Planning Law stipulates that traditional and cultural assets, and architectural and historical artefacts of an existing city, including natural heritage, shall be treated in urban plan design concepts in such a way that their values and co-existence with the new urban form are protected and enhanced. In the planning process the law recommends to divide these tangible or intangible objects and artefacts into three levels of significance. The first level involves the groups that are evaluated for full protection, meaning that any modification or other measures that may change their structure, shape, outside appearance and so on is strictly prohibited. The second level comprises the groups that are acceptable for restoration and the third level takes in the objects or structures that are deemed necessary to be built supplementary to the existing urban elements.

There are traditional and cultural events that will not only have a need for consideration when developing an urban design concept but will also require a diligent and practical experience and knowledge from the planner on how to lay them down harmoniously in the sense of connectivity, chronological coherence, and public and social benefits. The world heritage city of Luang Prabang, also known as the ancient capital of Lanexang Kingdom founded in the 14th century, and which experienced major reconstruction during and after the colonial era, is one such example. Luang Prabang has been successful in fulfilling planning prerequisites while many cities with about the same historical and national architectural significant have failed to do so and consequently the culture and traditional values did not translate into bringing economic benefits from the tourism industry.

The lessons learned from Luang Prabang are that in establishing urban forms and structures, several social and cultural events must be scrutinized in addition to the needs of the modern day city. These include, firstly, that pedestrian walkways alongside the local distributor and collector roads should be a reasonable width and made accessible for people with disabilities and elder groups, for cultural and social activities. Secondly, it is recommended that the city waterfront, especially when the site is planned for the boat racing festival or other water sports events, to be preserved for public parks, open spaces for mass gathering or walking streets and that transport connections must be arranged on the same principles as they are linked to the city central football stadium. Lastly, the number and location of city cemeteries should not be neglected when urban planning is considered, as it is not the funeral services that cause obstacles to the movement of vehicles, but the inappropriate number and location of cemeteries.

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

The low density of the urban population and uncontrolled outward development are amongst the hypothetical reasons for the chronic cost recovery problems in urban services and public transport of many cities in Lao PDR. For example, one report indicates an average figure of less than 180 people per hectare with the floor area ratio (FAR) of buildings of less than 2 while the building coverage ratio (BCR) increases by up to 100 per cent in the most crowded part of the capital city. According to the recent city master plan of the capital city, such a development burden will be eased by 2030. For example, Nongping in the northern development area, and the eastern specific economic zones along the high speed railway station to the Mekong River, have set no limitation on the height of buildings while the FAR ceiling is more than 5.0 and the BCR normal standard is set at less than 70 per cent. The Nongping development project will block the paddy field between the existing villages with medium and high-rise commercial and office buildings which will be extended in between a large water reservoir and residential areas, with a mixture of medium-sized apartments and village houses.

The urban renewable projects have so far been completed in the historical part and are underway in some districts of the capital city. In provincial capitals the same development arrangement will be targeted for completion by 2030 and thereafter. The main objective of the projects has been to restore economic vitality to the planned areas by attracting private investment and supporting business start-ups. It has been done by improving physical infrastructure, including the road and drainage system, public sanitation facilities, pedestrian crossings, and public parks that can accommodate commercial activities on either a permanent or temporary basis. Prior to the outbreak of the COVID-19 pandemic such projects had been highly successful in improving income distribution among the local residents especially the poor. With the enhancement of food safety and sanitary control measures, such a development concept may have a significant impact on local economic improvement and may also help to attract a wider public participation in the decision making.

Furthermore, although the term "urban regeneration" has not yet been found in practical use and in the national legal context, it may be equivalent to the aforementioned Urban Renewable concept in the Detailed Plan of the national Urban Planning Law, which is also based on the World Bank's description of a Four-Phase project: scoping, planning, financing, and implementation for rehabilitation and revitalization of underused and underutilized land. Article 5 of the law stipulates that, when the quality of buildings, infrastructure and environment of an area is depleted or decayed and can no longer function in accordance with the standard, the area shall be subject to a partial or full renewable process. This should be done by an assessment of the existing status of urban elements to provide an analysis of their future uses in order to ensure economic efficiency, social harmony, the environment, architecture, natural protection and sustainability of the urban form.

The law further specifies that new town developments or urban extensions shall be eligible for approval when it has the capacity to leverage the pressure on existing urban

areas in terms of employment, density, environment mitigation, new opportunities for technological advancement, creativity and innovation; and the land readjustment in an area shall proceed when the size and shapes of land lots become an obstacle for further improvement of infrastructure connectivity and services delivery in that given area. The law also prescribes the density of build-up areas in a city to be in accordance with their distance to commercial and business districts and divides the city areas into city centre or commercial business district (CBD), peri-centre, peripheries and new development areas where the highest buildings shall be permitted for construction in the first group with a gradual decline in height heading towards the city suburbs.

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

With the primary goals of improving the capacity of local government officials in urban planning and design after the launch of the third Vientiane city master plan (1991) Institut de Recherche Urbain (IRU) was established by recruiting the new graduates from the Collège d'Architecture et Bâtiment. It has been named Public Works and Transport Research Institute from around 2017 in conjunction with the transfer of its training functions to provincial staff and other government ministries and the newly created Training Centre of MPWT. From the day of its creation, it has carried out the urban planning for more than 100 towns in Lao PDR (Ministry of Public Works and Transport, Documents of the annual meeting, 2020).

As part of its training efforts and with support from German Agency GTZ in partnership with DHUP, the then Ministry of Communications, Transport, Post and Construction, in collaboration with the Land Authority, prepared a handbook on urban planning for the first time, which has become the key reference document in promoting urban planning among provincial organizations. The handbook was revised and amended in 2012 to reflect the need for mitigation and adaptation to natural disaster risks and climate change. Likewise, the recent Urban Planning Law has not only become a legal tool in regulating the urban planning process and its work scope but also plays a role in formulating the required knowledge among university students and professionals.

The training for urban planners in recent years has been included along with other project components and held regularly under the umbrella of the Greater Mekong subregion, North-South and East-West Economic corridor projects with specific target groups consisting of the representatives from the local government of six target towns. On average, about two to three courses have been organized per year with 15 - 30 participants in each session, and about half female professionals. Prior to the outbreak of COVID-19 a dozen urban planners had been sent annually for training abroad in Japan, the Republic of Korea and other ASEAN countries as part of multilateral or bilateral cooperation program.

2.2.6 Implement sustainable multimodal public transport systems including nonmotorized options

The exponential increases of private vehicle ownership in the country since the last decade has increased the number of road accidents and fatality rates to an alarming level. Road safety awareness-raising, especially for school children and the younger generation, combined with an attempt to integrate sustainable mobility through transport infrastructure planning at the stage of urban design, has become a priority of central and local governments. While challenging, the immediate reactive actions will address the accessibility, safety, efficiency, convenience and affordability of the existing public buses with the aim to encourage private vehicle owners to use public buses. The accessibility of public buses is to be enhanced through the extension of service routes to reach all groups of residents including the poor, people with health issues and housewives. Improvement in efficiency has been partially achieved in the capital city by the creation of mobile phone applications that can inform the passengers about the expected arrival time of the bus at the waiting station and to ensure the smooth transfer between service routes.

In the long run, the national sustainable transport and mobility policies will focus on the support for better coordination between transport and territorial planning and the application of advance technology that enables mobility services. The compact city concept, transport-oriented development and self-containment through mixed land use to reduce the distance between home and employment in line with enhancing connectivity of district and provincial cities with rural agricultural and industrial production centres, are the basic development directions in urban planning currently being explored. The application of advance technology also has the objective to supplement the spatial planning measures to ensure better regulation of urban mobility, transport accessibility by all groups of residents and to reduce the greenhouse gas emissions from the transport sector.

The ongoing Vientiane Sustainable Urban Transport Project is an example of the government's commitment to urban transport solutions. The project has been implemented by MPWT since 2018 with the objective to promote urban economic development and reduce local pollution and greenhouse gas emissions by developing urban transport systems that promote non-motorized public transport. The project introduced high-quality battery electric bus services in town and set up the system of bus rapid transit in line with the improvement of traffic management, parking systems and accessibility for pedestrians and non-motorized transport. The project cost stood at US\$ 99.7 million, including US\$ 21 million contributed by the Government and private sector, while the rest was loans by the Asian Development Bank, European Investment Bank, OPEC Fund and a grant provided by the European Union and the Global Environmental Facility (Ministry of Public Works and Transport, 2020).

2.3 Means of Implementation

2.3.1 Mobilization of Financial Resources

2.3.1.1 Mobilize endogenous (internal) sources of finance and expand the revenue base of subnational and local government

The financial mobilization from internal sources by the central and local government will have an important implication in fulfilling the country's mission to achieve sustainable development goals in poverty reduction, improve human development indexes, and secure access to adequate housing and basic services for all, and to graduate from the LDC status. Resource mobilization in recent years has been carried out extensively through enhancing revenue administration by modernizing the tax collection system, improving tax policies to increase fairness, transparency, efficiency and effectiveness of the system as well as eliminating fraud in public financial management. In the last ten years, tax payments by enterprises and private individuals has been made possible through a variety of options including mobile phone applications and postal services. The evidence indicates that such a move has also brought about a spill-over effect on the progress of transforming the informal economy sector into formal enterprise, and consequently the gradual decline of tax evasion.

Strengthening international cooperation has continued to be significant on the resource mobilization front. The Official Development Assistance Mobilization Strategy 2030 for Lao PDR, in August 2020, cited US\$ 8.09 billion or an annual average of US\$ 475 million of Official Development Fund (ODA) inflow from 2002 to 2018, excluding south-south cooperation partners, China, Vietnam and other developing countries. In terms of the percentage, this only constitutes 0.3 per cent of the world's total financial assistance but it represents an annual average upsurge of 7.9 per cent. In addition, the fund support from non-governmental and other civil society organizations during the same period stood at US\$ 550 million or an annual average of US\$32.36 million. The ODA support in Lao PDR is expected to rise in order to support the government commitment to meet SDGs and poverty eradication targets, as consistently reflected in the investment priority of National Socio-Economic Development Plan.

The 9th National Socio-economic Development Plan includes the investment objectives to improve the performance in six priority development areas between 2021 and 2025. These include productions and services, human resource development, research and development, rural development and poverty reduction, effective public administration, and regional and international connections. The plan seeks to increase government funding through tax collection and ODA, which are to be utilized for the ongoing infrastructure and road projects to support market and service access by the farmers and producers with the purpose of rural development and poverty reduction. Private sector funding will be prioritized for the transfer of technology in commodity and food processing industry, green agriculture, tourism, pharmaceutical products, transport, and logistics, and the construction of a new hospital which will be supplied with latest modern equipment and services. The Government will also facilitate private investment by setting up SMEs and development projects funded in a form of Build, Operation and Transfer (BOT) or Public Private Partnership (PPP). Bank loans will be reserved for most effective commercial productions, poverty reduction through the creation of family businesses, cooperatives, SMEs and large-scale industry that have the capacity to provide decent employment.

2.3.2 Capacity Development

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

City-to-city cooperation and exchanges to achieve urban solutions and foster mutual learning have taken place at both national and regional levels. Between the city and provincial authorities, the cooperation mechanism for experience sharing has not yet become a formal platform compared to that of regional levels. Instead, it has been facilitated through the official monitoring and reporting system by the government. The annual or quarterly meeting has been made an official channel for inter-provincial learning and information sharing in addition to the informal grouping of cities or districts that might be built for mutual learning and support either on professional or traditional matters. The provincial representation in the voting and working system of the National Assembly has also provided a window of opportunity for urban solutions and knowledge sharing between cities. Finally, cross-border urban development projects of past years not only fostered a multifaceted approach to improve the stakeholder and institutional capacity in setting and implementing relevant policies, but they have also made a great contribution to the exchanges of urban solutions and mutual learning at all levels and by all relevant parties.

The city-to-city cooperation for mutual learning and sharing of urban solutions at international level has been frequently achieved through the linkages of ASEAN and East Asia in almost all areas of the cooperation framework, including security, economics, socio-cultural factors and environmental cooperation. The ASEAN Model City program with an objective to improve the quality of the urban environment through the enhancement of waste management, reduction of greenhouse gases, and green city development involved more than 30 cities with the participation of three provincial capitals in the initial stage. ASEAN Smart City Network (ASCN) is another cooperation framework with a goal to improve the lives of ASEAN citizens by using technology to promote smart city cooperation development, developing viable commercial projects, and facilitating collaboration with ASEAN's external partners. In 2018, it had members comprising 26 cities, including Vientiane and Luang Prabang from Lao PDR.

Lastly, the twin or sister city concept has been enforced in international cooperation by forming a relationship through legal or social agreements between a Lao city and another city in a neighbouring or regional country for the purpose of promoting cultural and commercial ties. As of today, the capital city of Vientiane has built a sister-city links with Beijing in China, Elgin in the United States, Ho Chi Minh City in Vietnam, Kunming in China and also became a partner city with Kyoto City in Japan on 16 February, 2016. The ADB ASEAN Smart Cities Initiative (ASCI) from 2019 to 2024 also provides a strong emphasis on developing twinning programs between cities of ASCN members and the Smart City Council of Australia and New Zealand. Apart from institutional and training activities, the program includes the piloting of digital technology solutions and their full-scale implementation.

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

The Government's four principles of break through development strategy¹⁶ recognize capacity development as an integral part of the national effort in sustainable development. It has been given a priority in both rural and urban poverty alleviation, while being considered as an essential element to lift the poor out of the vicious circle of poverty and prevent the rollback. The conceptual assumption is that helping disadvantaged households to climb above the poverty line would be best achieved by local authorities who represent the driving force of poverty eradication. Paragraph 15 of the Addis Ababa Action Agenda (2015) recommends that capacity development must be country-driven, address the specific needs and conditions of countries and reflect national sustainable development strategies and priorities. In the last few decades, capacity development for local authorities has been carried out on, among others, organizational management, public administration, financial planning and budgeting, environmental protection as well as the country's strategic directions in adaptation and mitigation to climate change. These have been mostly put in practice through project-based training courses and seminars, combined with various forms of learning including field visits and city to city exchanges, mutual learning and sharing of experiences within and outside the country.

The capacity building programs have been embedded in a variety of urban development projects. For example, the ADB GMS program with an emphasis on developing priority transport corridors to link countries in the regions and support prioritized corridor towns in Lao PDR, has extended the support to institutional capacity, particularly on project implementation and sustainability development, and the promotion of investment opportunities to the private sector. The North-South Economic Corridor linking China to Thailand through the two cities of Lao PDR has also strengthened the institutional capacity of border area institutions. This was achieved through the preparation of a joint Border Economic Zone Action Plan focused on urban planning with prioritized investments in urban infrastructure, supporting past and ongoing GMS initiatives by including capacity needs assessment, actions for policy and institutional development, steps for attracting private sector participation, a value change and logistical analysis.

The upcoming liveable city project in Kaysone Phomvihane, Luang Prabang and Pakse under the support of the City Development Initiatives of Asia (CDIA) has been earmarked for: 1) promoting robust and complete neighbourhoods, 2) ensuring accessibility and sustainable mobility, 3) creating a diverse and resilient local economy, (4) designing vibrant public spaces, and (5) ensuring affordability of resulting investments and services. To achieve these goals, capacity development will be needed to engage with a range of stakeholders in urban policy, while strengthening partnerships, local-urban governance, financing and implementation, and urban innovation. Capacity development under the ongoing ASCI has selected a range of ASEAN cities to participate in regional capacity development and knowledge sharing events to address the urbanization challenges by improving planning, service delivery and financial management in addition to the digital solutions for smart city planning and governance.

2.3.2.3 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 statistics system of the Lao PDR was first elaborated by the Statistics Law of 2010, which was amended in 2017. The law defined the rules, regulations and measures for the organization, management, and inspection of statistical activities, and provided the legal framework for preparing national statistical activities. The law provided the authority to upgrade the status of the former National Statistics Centre to a ministry-equivalent rank under the MPI with the new name of "Lao Statistics Bureau" (LSB). Since then, the LSB has been given the mandate to collect and coordinate statistical data and integrate them into a national database for the purpose of monitoring and evaluating national, sectorial, and local operational plans such as the five-year National Socio-Economic Development Plan, the national commitment to Sustainable Development Goals and Least Developed Country indicators.

LSB has also been given a responsibility to ensure the quality of statistics produced by other government agencies. The responsible areas of LSB are divided into socioeconomic statistics and statistics management respectively, and their field representatives at provincial, district and village levels are decentralized. In addition, there are now four other primary government agencies involved in maintaining the core set of economic statistics, which are: The Bank of Lao PDR (BoL), Ministry of Finance (MoF), Ministry of Industry and Commerce (MoIC), and Ministry of Labour and Social Welfare (MoLSW). Other line ministries also have the rights to produce and provide statistical data related to their areas of responsibilities such as in tourism, telecommunication services, trade, agriculture, construction businesses and others.

The Government has recognized the importance of statistics especially regarding national economic development and their commitment to building the Lao Statistics System (LSS), affirming that there is an urgent need for securing timely, high quality and high frequency economic statistics. The National Strategy for the Dissemination of Statistics sets a vision to strengthen the LSS in order to attain international standards and ensure a comprehensive, timely, transparent and reliable supply of quality socio-economic, environmental and relevant statistics to the Government and other users. The vision has four development strategies: 1) improving regulations and institutional frameworks; 2) developing statistical infrastructure; 3) the management and development of data; and 4) ensuring statistical activities (through facilitation, protection and the preservation of data in the networks, and both regional and international cooperation to strengthen management and expertise). The National Strategy also focuses on many more relevant areas including, but not limited to, statistics related to national accounts, agriculture, industry (e.g. mining, industrial processing, handicrafts and energy), postal and telecommunications, public works and transport, tourism, investment, overseas technical assistance, trade and balance of payments, fiscal and monetary policies, prices, population; poverty, gender and SDG; education, public health, labour and welfare, environment; culture and sport, land use, and others (accidents, disability, court cases, criminal issues, and so on).

2.3.2.4 Implement capacity development programmes of subnational and local governments in financial planning and management

The financial management system of Lao PDR has experienced a history of profound policy changes between the decentralization and centralization of decision-making processes. When the socialist central planned economy was established, the provinces received a large degree of autonomy. After the liberalization of internal and external trade followed by the privatization of state-owned enterprises, the autonomy of provinces was extended further. The provincial offices of the Ministry of Finance controlled the expenditures, tax collection, budget planning, and the taxes were included as provincial revenue with only few resources being transferred to the central government. Local branches of the State Bank acted independently, including setting up the exchange rates. Such a highly autonomous system, in return, triggered large disparities between the provinces in terms of service provision due to the differences in tax base, which prompted urgent reversal measures. A greater uniformity was hence introduced and endorsed through the adoption of a law in 2001. However, parts of the past decentralization policy, such as budget allocations through provinces, was reintroduced in 2008 as the Samsang policy, with an objective to form the provinces as strategic units, while the districts were to be regarded as budget planning units and the villages to act as the implementation unit.

Capacity building in financial management for subnational and local government were closely linked to those policy changes, and international donors also played a significant role. According to a report published by the Swedish International Development Cooperation Agency (SIDA), ADB was a major external partner in capacity development for both national and local government in Lao PDR. It provided support in various aspects of public financial management including the preparation of the national procurement guidelines; model bidding documents; setting up a contractor's registration system; providing assistance to set up the Procurement Monitoring Office and State Auditing Authority; and outlining the duties, and roles of the staff, together with training to meet international audit standards. From the legal side, it helped the Government to enhance regulations and procedures, specifically in the preparation of accounting regulations, formats and the content of financial statements, development of comprehensive accounting policies, procedure manual, and an in-depth training program for staff, to name just a few. When the ADB extended its loan financing projects to Lao PDR, the capacity building in Project Financial Management focused particularly on the government staff and key decision-makers whose responsibilities were to approve the works of Project Management and Implementation Units at respective ministerial and provincial levels. The capacity building objective was to improve loan disbursement and budget mechanism though enhanced knowledge and capacity on project accounting and other relevant matters.

In addition, further support for public financial management reforms was extended by the World Bank for the period 2019 to 2025 to enhance the ICT skills of the government personnel. This is supplementary to European financial assistance in the form of a trust fund that will support 1) public procurement, 2) tax administration, 3) reform coordination (coordination and cooperation between government agencies), and 4) strengthen budget preparation and execution (The Laotian Times, 2019). The significant achievements of the reform efforts, among others, were the application of The Automated System for Customs Data (ASYCUDA) for international customs, and collecting duty and tax through the banking system

by using Smart Tax and E-payment. In the meantime the Public Finance Development Strategy toward 2025 was additionally introduced in four main strategic areas 1) macroeconomic stability, 2) revenue policy and collection, 3) expenditure policy and rational spending, and 4) the modernization of public finance entities to secure balanced economic growth, efficient revenue collection, and enhance budget expenditure transparency against corruption in line with regional and global practices.

2.3.3 Information Technology and Innovation

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

Lao PDR has been lagging behind the regional level in terms of internet connections. The Datareportal¹⁷ reports that in 2020, there were 3.1 million internet users in Lao PDR, which was a recorded increase of 6.5 per cent or 188 thousand from 2019, while the total internet penetration rate in the country stood at 43 per cent in January 2020. These figures also indicate the number of social media users, with a rising trend of 12 per cent or 328 thousand for the same time period. However, mobile connections peaked at 5.68 million or around 79 per cent of the total population during the same reporting period, with a slightly lower rate of increase of 1.3 per cent or 73 thousand from 2019 to 2020. In 2018, after surveys were conducted in Cambodia and Myanmar, the United Nations Conference on Trade and Development (UNCTAD) noted that Lao PDR was a mobile-only country with a rapid expansion of mobile broadband internet services, and that this trend was predicted to continue to 2022. It has also been said that the ICT sector will be one of the backbone service industries in the country as it will allow people to stay connected and, in the meantime, make a significant contribution to economic growth in other sectors of the economy.

In addition, the e-Government Action Plan was initiated by the 7th NSEDP which was then followed by the 8th NSEDP and beyond, led by the Ministry of Post and Telecommunication (MPT). A plan was envisaged to undertake a three-stage development approach: G2G ('Government to Government') will be the priority focus of the first stage, while integrating government data into one single service and the initiation of G2B ('Government to Businesses) will be under the second stage. The final stage will cover a fully computerized administration system, e-service, ecommerce and G2C ('Government to Citizens') service applications. The current scope of the action plan consists of 1) the establishment of an e-Government Service Centre in MPT and all other ministries and provincial offices; 2) reconstruction of e-Government infrastructure, 3) development of e-Government applications (e-commerce, e-revenue, etc.), 4) deployment of e-government in human resource development, 5) establishment of a National Standard on data and security, and 6) the endorsement of legal and regulatory frameworks.

The digitization attempts are yet to achieve the targets, while numerous challenges are expected along the way. For example, when compared to other regional economies, Lao PDR lags behind in terms of accessibility, quality and affordability of internet services. The mobile broadband coverage is increasing in urban areas but the limited data transmission

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¹⁷ https://datareportal.com/reports/digital-2021-laos

capacity hampers the network speed, while it is difficult in both infrastructure installation and securing the connection in rural and remote areas where small communities are scattered in isolation, at a vast distance from one another. The prices for internet services are comparatively high and extremely expensive for high-capacity fixed broadband, which makes it unaffordable and compromises the connection rates, thereby discrediting the goals of equitable access for all, especially the poorest. To ensure that the country does not fall further behind their regional peers, the World Bank recommended a number of interventions: 1) legal and regulatory reform to stimulate investment, 2) increase private participation and public fund support for less commercially profitable investments, 3) tackle the bottlenecks of infrastructure and services provision to ensure efficient use of available resources; and 4) review and adjustment of tariffs for mobile services to reduce the price but not at the expanse of quality competitiveness among providers (The World Bank, 2019).

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

The implementation of geospatial information systems in Lao PDR is still in its early stage. It had its commencement with the land tilling project that aimed at development of the land administration capacity. The project was carried out by the former Department of Land within the Ministry of Finance with financial support from the World Bank Credit, and grant financing for Technical Assistance from the Government of Australia and the Government of Germany. Under the project, the land information related to the position of land titles or properties were underpinned though the Earth's coordinate system, which were presented in the form of maps or plans, and stored in digital files and databases. In its later stage the project set up the National Land Information Coordination Strategy with a primary objective to 1) clarify the guiding vision and goals on the governance and coordination of land information development; 2) develop guidelines for the use, provision, acquisition, security and management of land information, and 3) provide the minimum standards for public access to land information and service delivery by local officers. In addition to an attempt to clarify the duties, roles and functions of counterparts involved, the emphasis was placed on the national policies and strategies for ICT and e-government, specifically on how they can be applied to sharing land-related information within government sectors and the public. The modernization attempt provided results and the inauguration of the first of 40 Continuously Operating Reference Stations (CORS) (the use of the Global Navigation Satellite System (GNSS) for positioning and mapping) in Vientiane Capital in September 2016, which provide, for example, high-precision navigation, positioning and time services for navigation and surveillance, surveying, urban and rural development, meteorology and disaster response (Yap, 2016).

The application of geospatial information systems in urban planning has not been developed alongside and made the same progress compared to the land titling program. From 1991 to 2020, a total of 148 cities and towns underwent urban planning processes where cadastral maps, aerial photographs and land use maps were frequently used supplementary to manual area planning surveying. The design works were carried out by Computer Aided Design (AutoCAD) or a manual drawing basis. The design approaches, data collection and analysis were not standardized, and unified formats made it difficult to digitize the use of a unified

national geospatial information system. To address such issues, the sector set up a target and accepted a full commitment to future digitization of the urban planning data base and urban development using information systems and geospatial technology by 2025.

The Urban Planning Information System (UPIS) will be installed to perform the functions of: 1) monitoring of urban planning through analysis of subject map status, city planning facility execution status, and building change analysis, 2) unification of planning by linking with land use, urban management and other systems; 3) providing city planning information through the Internet. Encouraging citizen participation by providing real-time city planning information, 4) aggregating and searching lists of cities planning status by providing charts and graphs based on city planning management work, 5) provision of information on city planning drawings and records. The provision of city planning status information, history information and related data provision of real-time ledger information in connection with other systems; and 6) supporting various output templates, the creation of documents in suitable business formats (project proposal from Department of Housing and Urban Planning, 2021).

2.3.3.3 Build capacity at all levels of government to effectively monitor the implementation of urban development policies

At the central government level, the implementation monitoring of urban development policies falls under MPWT, MoNRE, and MPI, although such division of labour is yet to be stipulated in any legal document. MPWT, through its four technical departments (namely Housing and Urban Planning, Water Supply and Sanitation, Roads and Bridges, and Transport), is assigned to oversee law enforcement and the monitoring of the implementation of urban development policies. It also undertakes necessary amendments in related laws and regulations in case of need, set up and implement national urban development strategy, monitor urban development and urban design projects, and provide assistance on capacity building at provincial and district levels. MoNRE, on the other hand, has one of the main roles in land allocations and management with a focus on territorial planning, including the national land use plan and changes regarding land use zoning that are later approved by the National Assembly. MPI and LBS are mandated to collect, analyse, maintain and share the socio-economic, environmental and other statistical data for the purpose of urban planning and development.

The field offices of these ministries at provincial and district level share the same mandates, roles and responsibilities with their ministerial counterparts, with reduced authorities within their respective provincial and district administrative boundary. The provincial department and district offices of Public Works and Transport, for example, are the two key government organizations accountable for monitoring the implementation of urban development policies and all types of urban plans. They are given the responsibility to approve the construction permits for housing, public infrastructure and land development while at the same time maintain and update the urban database in addition to LBS of the Ministry of Planning and Investment. Following the issuance of Prime Minister Order no.02 of 2018 regarding the simplification of the government regulatory mechanism on business start-ups and operations, capacity building for these agencies has intensified in various dimensions with support of both central government and international partners.

MPWT amended the ministerial codes on construction permits in 2019 as the first step in the government reform process, while reducing the amount of bureaucratic procedures, unnecessary paper work and required approval time to less than half. The division of tasks between the provincial DPWT and the District Office of Public Works and Transport (DOPWT) has also been clarified by the separation of buildings and construction objects to be built or installed into three categories depending on their levels of exposure to risks, environmental impacts, and socio-economic and cultural values. While only category 3¹⁸ will be subject to approval by the district office, the one-stop shop window for the submission of development application (DA) has been introduced in district offices. The second aspect of capacity enhancement has been the introduction of online access to regulations, related laws, and other information required for DA submission. In parallel to the ongoing efforts to fully secure the online submission and delivery of construction permits, the smart urban management system is to be carried out through the mobile application by 2030. Lastly, MPWT has established a Training Institute with the mandate to facilitate training courses and related workshops to foster a conducive environment for the career development of the technical officers, engineers and architects at the central and local government levels.

Part 3: Follow-up and Reviews

The annual or Mid-Term Review (MTR) of the NSEDP represents the key follow-up and review mechanism of the Government in assessing and evaluating economic and social development. It has been carried out extensively by central government ministries, provincial authorities and civil society organizations such as the Lao Women's Union, Trade Union, Youth Organization and Lao Front for National Reconstruction. The purpose of the MTR is to track progress, identify challenges and determine the course of actions to ensure the effective use of

¹⁸ Residential buildings with functional areas up to 400 square meters and the height of less than 10 m.

national resources, accountability and transparency to the citizens, and alignment with the national commitment to the 2030 Agenda for Sustainable Development, Paris Agreement, Kyoto Protocol, and other relevant international conventions or treaties. In 2018, the country completed its first SDG Voluntary National Review (VNR) and presented the findings at the High-Level Political Forum.

Another follow-up mechanism of the government commitment to the SDGs is the High Level Round Table Meeting (HL-RTM)¹⁹ where ten Sector Working Groups (SWG)²⁰ and a number of Sub-Sector Working Groups from the central and local governments meet and discuss the challenges and support required for the implementation of socio-economic development activities in preparation for the next phrase of NSEDP. While the implementation meetings are held every year, the HL-RTM, which was first held in 1983, currently takes place every five years, led by the MPI and its guiding principles, the Globally Agreed Principles on Effective Development Cooperation. Finally, although it is yet to be reflected in the official government agenda, the National Urban Forum was called to serve a key functioning follow-up and review of NUA and the SDG Goal11²¹ at the inauguration of the Minister of Public Works and Transport in May 2020.

Conclusion

The transformative commitments for sustainable urban development of the Lao PDR is expressed through the implementation progress of its national socio-economic development plans. It is firstly related to the poverty alleviation effort of the past 25 years where the numbers of people living under poverty was reduced by half through the increases in human capital, access to land and non-farm jobs, and social inclusion played key roles. More than 90 percent of the total households in both rural and urban areas are currently reported to have access to adequate and affordable houses and pro-poor micro credit schemes are provided in addition to housing loans from commercial banks. The security of tenure is underpinned by the issuance of land titling certificates in addition to the improvement of the infrastructure, environmental conditions, access to safe drinking water, sanitation and solid waste disposal, as well as capacity building and community livelihoods. For the purpose of sustainable and inclusive urban prosperity and opportunities for all, the government of Laos envisioned a shift away from heavily reliance on resource exploitation to a more diversified economy and promoting SMEs, while at the same time take actions to reduce unnecessary bureaucratic procedures, red tape and other impediments in the business life cycle. Additionally, infrastructure projects, especially the construction of connected roads, were implemented with the objectives to improve the urban to rural linkages and to provide services and a market place for agricultural products, together with job opportunities for rural villages. The government actions for environmentally sustainable and resilient urban development include the adoption of the Strategies on Climate Change with both adaptation and mitigation measures in seven key economic sectors: agriculture and food security, forestry and land use changes; water resources, energy and transport,

¹⁹ Available from https://rtm.org.la/

²⁰ Ten SWG in Lao PDR include: infrastructure, health, education, mine action, illicit drug control, governance, micro economics, agriculture and rural development, natural resources and environment, and trade and private sector development.

²¹ SDC Goal 11: Making cities and human settlements inclusive, safe, resilient and sustainable

industry, urban development and public health in conjunction with the introduction of the guidelines on mainstreaming disaster risk and climate change impacts in urban planning processes in 2012. Finally, the activities for sustainable management and use of natural resources are mainly dedicated to solid waste management in urban areas with a large effort in waste reduction, reusing, and recycling along with the establishment of the Smart Urban Planning Information System (UPIS) to leverage digitization and technologies.

Despite these achievements the Lao PDR need to address a number of challenges in the following priority areas. First of all poverty alleviation has created regional disparities between urban and rural areas and inequality has increased in addition to the low productivities of the agriculture and farm sector, together with the economy being resource driven. An attempt must be made to create a broad-base economic growth through structural transformation by the reduction of the agricultural share in the economy and employment, an increase in urban economic activities, industry and services; and improved conditions for a demographic dividend through labour intensive industrialization. Furthermore, to address the worsening environmental problems as a result of an inadequate solid waste collection and disposal, as well as the poor quality of urban services delivery and urban infrastructure, transparent and effective urban governance, further support, including reasonable reform measures, is to be sought with an aim to ensure that the governance system is responsive, professionally competent, participatory and result performance based. Finally, integrated and balanced territorial development policies, integrated housing development, and sustainable multimodal public transport should be further enhanced and put into practice as a part of cities socio-economic development plans to address the existing urban sprawl in the country's major cities that are at risk of turning into the worst slum areas.

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