

INCEPTION REPORT

LUANG PRABANG SMART AND INTEGRATED URBAN STRATEGY

JULY 2022



ASEAN
AUSTRALIA
SMART CITIES
TRUST FUND
Asian Development Bank



Australian Government
Department of Foreign Affairs and Trade





Photo: Asian Development Bank



RAMBOLL

Project name	Luang Prabang Smart and Integrated Urban Strategy
Recipient	Asian Development Bank (DFAT and Luang Prabang Mayor's Office)
Document type	Inception Report (FINAL)
Version	1.0
Date	15/07/2022
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Description	Luang Prabang Smart and Integrated Urban Strategy: Inception Report (D1)
Cover image	Luang Prabang City and Nam Khan River (Photo: Adobe Stock)

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ABBREVIATIONS

AASCTF	ASEAN Australia Smart Cities Trust Fund
ADB	Asian Development Bank
ASEAN	Association of Southeast Asian Nations
DFAT	Department of Foreign Affairs and Trade, Australia
DICT	Department of Information, Culture and Tourism, Luang Prabang Province
DPI	Department of Planning and Investment, Luang Prabang Province
DPL	Department of World Heritage, Luang Prabang Province
DPWT	Department of Public Works and Transport, Luang Prabang Province
ICT	Information and Communication Technology
JICA	Japan International Cooperation Agency
Lao PDR	Lao People's Democratic Republic
MLIT	Ministry of Land, Infrastructure and Transport, Japan
MPI	Ministry of Planning and Investment, Lao PDR
MPWT	Ministry of Public Works and Transport, Lao PDR
PPP	Public-Private Partnerships
PSMV	Plan de Sauvegarde et de Miso en Valeur (Safeguarding and Preservation Plan for the World Heritage Site of Luang Prabang)
SDGs	Sustainable Development Goals
UEIIP	Urban Environment Improvement Investment Project
UNESCO	United Nations Educational, Scientific and Cultural Organisation
USO	Urban Services Office, Luang Prabang City

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EXECUTIVE SUMMARY



Photo: AASCTF Task Team

As part of the ASEAN Australia Smart Cities Trust Fund (AASCTF), Ramboll is assisting the Luang Prabang provincial government to prepare a smart and integrated urban strategy for Luang Prabang City. The strategy will help address the challenge of balancing urban growth objectives with the protection of the local heritage, as an essential part of the city. The strategy will comprise three components, namely urban development, heritage, and tourism. Within each component, the AASCTF team and government counterparts will propose a series of development strategies and smart city initiatives which will then be prioritized for implementation. The strategy will be developed in three stages:

- **Urban Assessment:** To analyze Luang Prabang's current situation using data, geospatial analytics and desktop research and reviews.
- **Urban Scenario:** To propose a plausible development scenario for Luang Prabang in 2040, after factoring projected population and visitor numbers, land availability and urban structure concepts.
- **Integrated Strategy:** To prepare an integrated strategy for urban development, heritage and tourism, using inputs from the two earlier stages. The team will also develop a prioritization framework for smart city projects in consultation with local stakeholders.

The project will run from March to December 2022.

1 SETTING THE STAGE



Photo: AASCTF Task Team

In April 2019, the Asian Development Bank (ADB) approved the establishment of the ASEAN Australia Smart Cities Trust Fund (AASCTF), with financing provided by the Government of Australia, through its Department of Foreign Affairs and Trade (DFAT). The Fund's envisioned impact aligns with ADB's Strategy 2030, as well as ASEAN's Sustainable Urbanization Strategy, which aims to promote high quality of life, competitive economies, and sustainable environments. The expected outcome of the Fund will be that systems and governance in participating ASEAN cities are improved through the adaptation and adoption of digital solutions across three core functional areas: planning systems, service delivery and financial management.

At present, 24 cities across Southeast Asia participate in the AASCTF program. Luang Prabang, in the Lao People's Democratic Republic (Lao PDR), is one of 11 participating cities currently implementing a pilot project. By working with cities, AASCTF facilitates their transformation to become more livable, resilient, and inclusive, while in the process identifying scalable best and next practices to be replicated across cities in Asia and the Pacific.

The Fund acts as a mechanism for facilitating and channelling resources and financing for eligible projects, as well as activities agreed between DFAT and ADB for project preparation, implementation, and capacity development. As the main implementing partner of the AASCTF, Ramboll is assisting the Luang Prabang provincial government with implementing the pilot in Luang Prabang.

1.1 WHAT IS A SMART CITY?

'Smart city' is a term which is often used synonymously to imply a technologically advanced city, in which information and communication technology (ICT) and digital tools are well-integrated into the urban fabric. Such a definition could however convey an image of "floating high-speed trains, winding their ways through shining skyscrapers", which is a mistaken view of what a truly smart city entails.¹

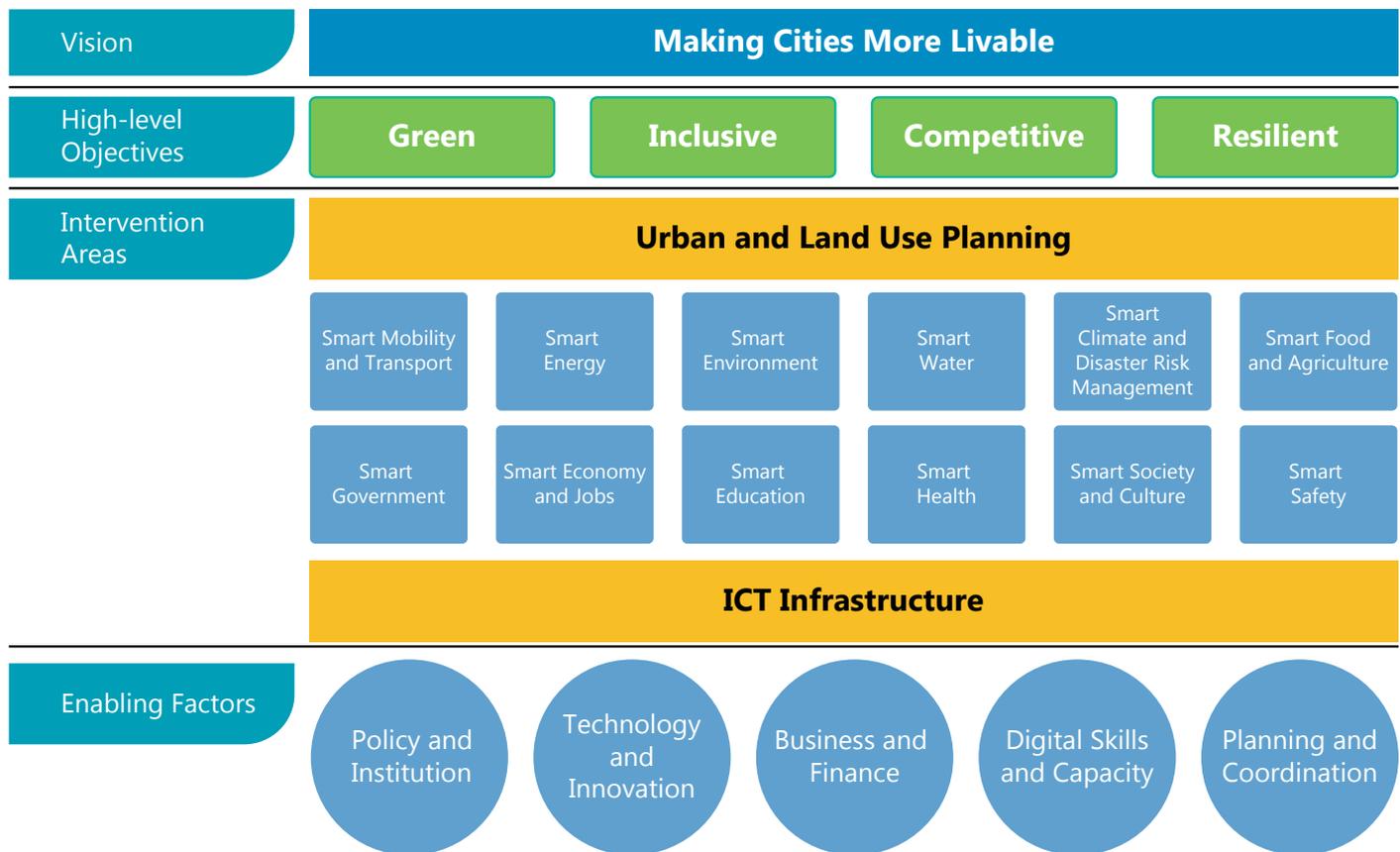
Ultimately, a smart city is one where people come first, and where ICT and digital tools are means to achieve the desired strategic outcomes for the city. This, however, is still a very broad definition. To craft what such a smart city could look like, the AASCTF team utilizes ADB's "Smart City Analytical Framework", which sets out the key components that make up a smart city (Figure 1) as a point of reference.²

At its heart, a smart city is a livable city; one that is green, inclusive, competitive, and resilient. Smart interventions within and across 14 action areas - *comprising 12 sectoral domains (such as transport, water, health and food), and 2 cross-cutting domains (namely holistic urban and land use planning, and integrated ICT infrastructure)* - would then be developed in line with the unique 'smart city vision', while also taking into consideration the city's own digital readiness or maturity.

¹ Morscher L and Northdurft T, "1000 Hills, 1 Plan" in Forbes, published on 2 February 2021, <https://www.forbes.at/artikel/1000-hills-1-plan.html>, accessed on 7 June 2022.

² Yoon S Y, Lee H S, Zelt T et al, "An Analytical Framework and Guidance for Smart City Planning", in *Creating Livable Asian Cities*, edited by Susantono B and Guild R, published by Asian Development Bank, 2021

Figure 1: ADB's Smart City Analytical Framework



ICT = Information and communication technology.

Source: Asian Development Bank.

While the 14 intervention areas are commonplace in any smart city strategy, enabling factors must also be established to ensure the sustainability of such smart city initiatives. These enablers include

- **Policy and Institution:** Having strong policy and institutions, which set out clear laws and rules to guide the digital transformation of a city. Good management, operation, and maintenance of ICT and digital technologies will also be foundational to ensure the longevity of these tools.
- **Technology and Innovation:** Developing innovative digital solutions that fit the context of the city. For example, digital solution competitions could be used to invoke public, private, and academic support to generate new ideas.
- **Business and Finance:** Developing a comprehensive financing model to support rollout of smart city initiatives. These could include the use of public-private partnerships (PPPs), as well as partnerships with universities and non-profit organizations.
- **Digital Skills and Capacity:** Building capacity within government so that people with the right skills and knowledge can capitalize on smart solutions. These would include upskilling staff, providing on-the-job training, as well as encouraging partnerships with technology providers and academic centers. Concurrently, building capacity and awareness in the general populace is critical to encourage uptake and avoid leaving behind segments of the community.
- **Planning and Coordination:** Putting in place a coordinated and planned approach across different government agencies to implement the gradual transition into a smart city. Securing public support will also be important to ensure successful implementation of projects.

Therefore, prior to developing Luang Prabang’s smart and integrated urban strategy, it is essential to first understand the local context, its development challenges, and ambition. At this stage, the team covers the essential aspects needed to define the project scope, with more details to be provided as part of the Urban Assessment report.

1.2 LUANG PRABANG CONTEXT

1.2.1 LUANG PRABANG PROVINCE AND CITY – ESTABLISHING THE PROJECT STUDY AREA

Nestled in the northern region of Lao PDR is Luang Prabang Province, characterized by its mountain ranges and the Mekong River and its tributaries, with a total land area of over 19,237 square kilometer (km²).³ The province is divided into twelve administrative districts, including Luang Prabang district, which has been granted city status by the national government (Figure 2).⁴

The land area of Luang Prabang City encompasses 85,700 hectares (ha)⁵ with 115 villages and forested land, with the actual urban area comprising about 3,000 ha⁶ in the city’s administrative zone. For the purposes of this project, we will use the boundaries of the urban area and its buffer zone, as defined in the *2012 Urban Planning Regulations for Luang Prabang*, as our primary study area. The urban area and buffer zone was found to be most suitable, as it encompasses the primary urban areas that has grown around the historic township as well as its fringes, which could be used for future urban growth. However, as developments taking place outside the zone could have an impact on it, we will also consider smart interventions in a broader landscape where appropriate.

1.2.2 HISTORY AND HERITAGE

Luang Prabang was the royal capital of the Lan Xang Kingdom, one of the largest kingdoms in Southeast Asia from the 1350s to the early 1700s, before coming under French colonial rule in the 1800s. Owing to this heritage, the historic township of Luang Prabang, broadly defined by the villages located on the peninsula at the mouth of the Nam Khan River as well as the mountains located on the opposite bank of the Mekong River, were inscribed in December 1995 as a UNESCO World Heritage Site.⁷

³ Japan International Cooperation Agency (JICA), International Development Centre of Japan and Nippon Koei Ltd, 2016, Data Collection Survey on Regional Development in Luang Prabang, Lao P.D.R., p.2-1.

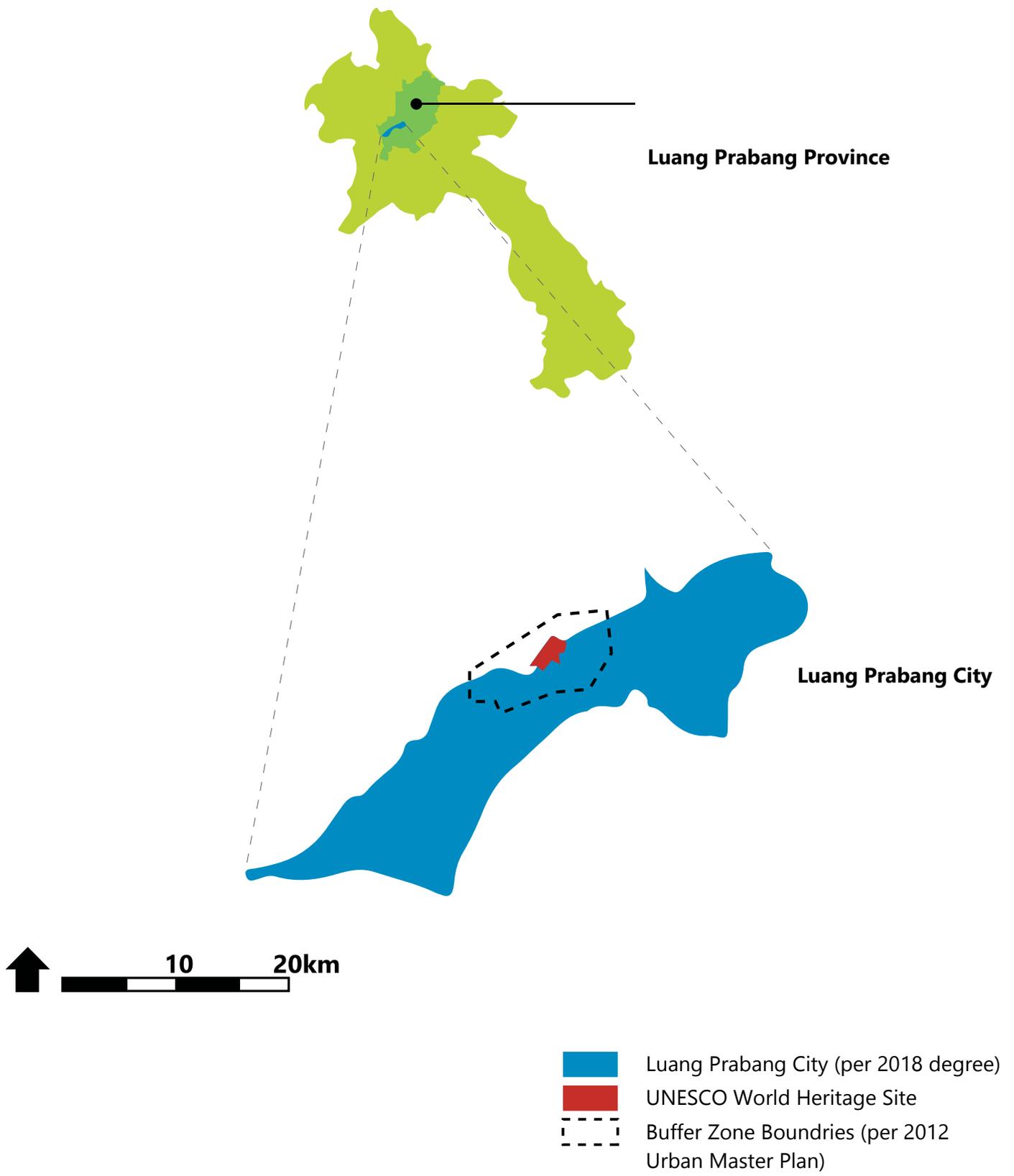
⁴ Decree No.126/PM, dated 11 May 2018

⁵ JICA, 2016, p. 2-4

⁶ Egis projections, 2022

⁷ In 2013, UNESCO approved slight modifications to the boundaries of the World Heritage Site to include more of the mountain ranges to the north of the Mekong River. See Figure 3.

Figure 2: Boundaries of Luang Prabang Province and City



1.2.3 POPULATION AND TOURISM GROWTH

The establishment of the Luang Prabang World Heritage Site has made the historic township a major tourist attraction in Lao PDR. Between 2010 and 2019, before the onset of the coronavirus disease (COVID-19), Luang Prabang Province experienced a 300% increase in the number of international tourists (reaching 949,103 visitors in 2019⁸), most of whom stayed in and around the historic township.⁹

Correspondingly, Luang Prabang also became more attractive to rural residents looking to work in newly created tourism jobs. Luang Prabang also became increasingly important as a logistics hub for the northern part of the country. From 1995 to 2015 – a span of 20 years – the population of Luang Prabang City grew from 53,800 persons to 90,313 persons,¹⁰ which is a 67-9% increase due to natural population growth as well as rural-urban migration.

1.2.4 URBANIZATION TRENDS

To cater to the influx of tourists looking for an experience in the heart of the UNESCO World Heritage Site, many residents within the historic township converted their homes into shops and guesthouses or rented them out to be used as restaurants and boutique hotels. New hotel buildings were also constructed. Researchers from the Tokyo Institute of Technology found that between 1999 and 2017, the percentage of buildings in the core center of the historic township used for tourism and commercial activities increased from 9% and 6% respectively, to 35% and 11% respectively.¹¹ The percentage of residential buildings declined from 78% to 46% during the same time period.

These residents settled into new villages located at the fringe of the historic township, establishing new communities, and developed informal markets, light industry areas, and schools. Correspondingly, the urban area around the historic township grew approximately 2.2 times in size from 1998 to 2013, spreading northwards along the Mekong River and National Road 13N and extending beyond the Luang Prabang Airport and southwards into the mountains (Figure 4).¹²

8 Egis, 2022, based on data provided by DICT (2000-2021)

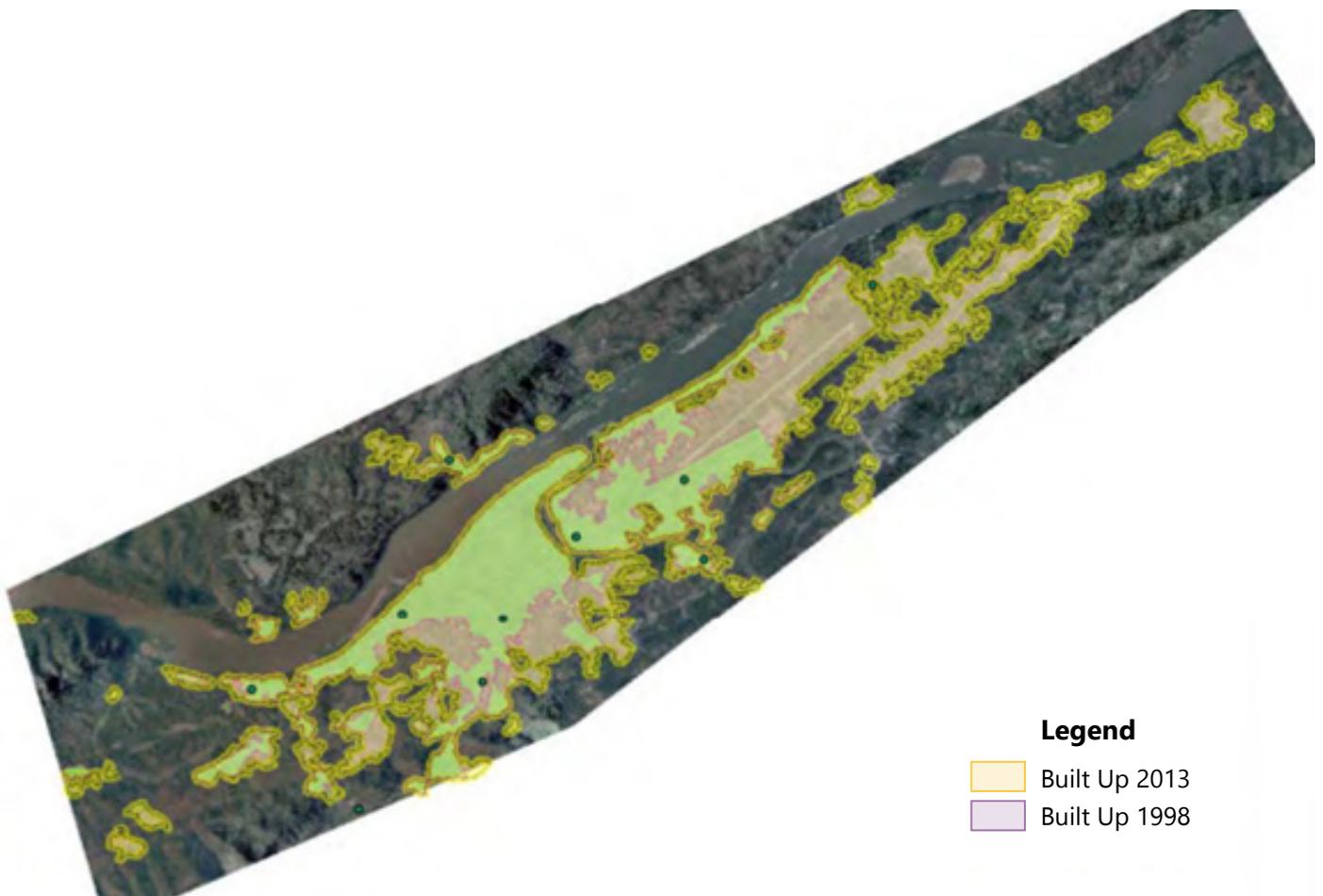
9 2013 Statistical Report on Tourism in Lao PDR, 2019 Statistical Report on Tourism

10 EGIS, 2022, LAO: Urban Environment Improvement Investment Project, Luang Prabang Development Scenarios, Volume 1 Urban Development.

11 S. Yume Yamaguchi and Itsuki Uemura, 2018, Analysis of Landscape Changes in ZPP-Ua Luang Prabang, Presentation to Department of World Heritage, Luang Prabang

12 Japan International Cooperation Agency (JICA), International Development Centre of Japan and Nippon Koei Ltd, 2016, Data Collection Survey on Regional Development in Luang Prabang, Lao P.D.R., p.2-13.

Figure 4: Urbanization of Luang Prabang City, 1998–2013



Source: Japan International Cooperation Agency, 2016

1.2.5 NEW MEGAPROJECTS

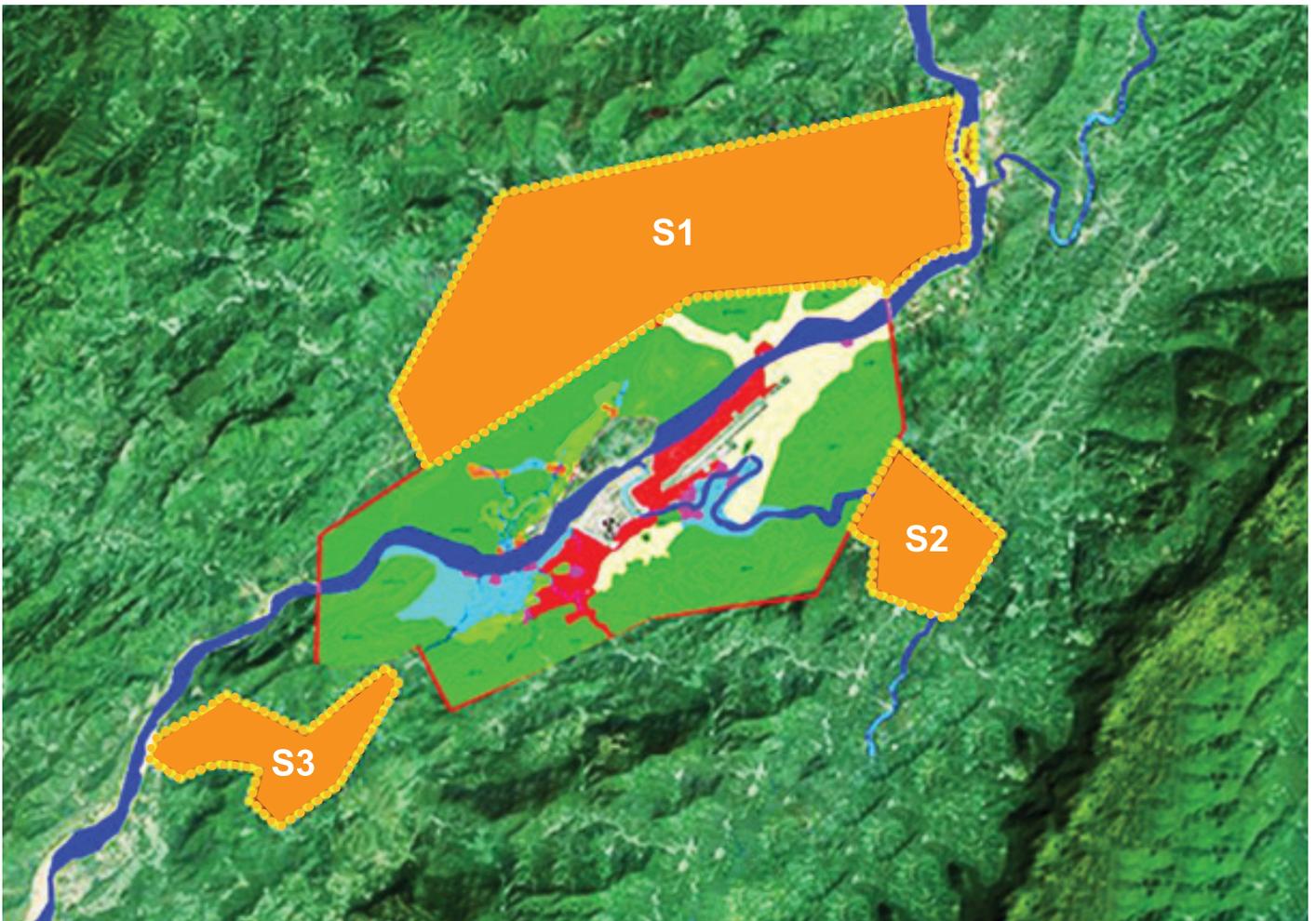
Luang Prabang is the recipient of several new megaprojects, which have and will influence its urban development, heritage, and tourism management.

In December 2021, the Lao-China High Speed Rail connecting the capital of Lao PDR, Vientiane, to the northern border town of Boten, was opened, with a new station serving Luang Prabang. An expressway running parallel to this route is also being planned to connect Lao PDR to the People's Republic of China (PRC), which will connect to the Vientiane to Vang Vieng Highway.

In addition, there are several dam projects taking place in the vicinity of Luang Prabang. The Xayabouly Dam, located approximately 60 km downstream from Luang Prabang along the Mekong River, was constructed in 2019. There is also ongoing construction of a new dam along the Mekong River, 25 km north of Luang Prabang, just upriver of the mouth of the Ou River.

Lastly, the Ministry of Planning and Investment (MPI) has signed a Memorandum of Understanding (MoU) with the Phousy Group to develop three Special Economic Zones (SEZs) outside the buffer zone: S1, S2, and S3 (Figure 5). S1 is in Chomphet and planned as a new city with tourism and recreational activities. S2 is located at the High-Speed Rail Station, and will be developed for logistics, hotels, and new businesses. S3 will be located to the west of Luang Prabang and cater predominantly to ecotourism. Additional SEZs are in the pipeline, and it can be expected that more will follow. Because these SEZs are approved at the ministry level and Decree No. 433 on Specific Economic Zone and Specific Economic Zone provides SEZs with a high level of self-determination, provincial authorities have limited powers to manage them.¹³

Figure 5: Location of Special Economic Zones (SEZs)



Source: Phousy Group website, <https://phousy.com/lsez/>, accessed on 6 June 2022

¹³ Decree No. 433 on Special Economic Zone and Specific Economic Zone can be viewed here: <https://data.opendevlopmentmekong.net/lo/dataset/5db9e21e-b6b6-4190-9c9a-b0dab564d909/resource/d41c7adc-cb7f-42df-926e-2f2b1d544e0f/download/ncsez-443-en.pdf>

1.3 IMPETUS FOR A SMART AND INTEGRATED URBAN STRATEGY

Rapid urbanization, tourism and population growth, and the development of new megaprojects have brought tremendous economic and social development to Luang Prabang. However, these have also put the integrity of the World Heritage Site under immense development pressures. Several impacts observed by the AASCTF team, which point towards significant stresses in the urban environment, include:

- Seasonal overcrowding of the historic township and key attraction sites, which for instance at Mount Phousi at sunset, have also posed safety concerns to visitors. These tend to take place from November to February each year, with additional periods of high domestic visitation and congestion during the end of Buddhist Lent (usually mid-October) and Lao New Year (mid-April).
- Increased commercialization of Sakkaline Road within the historic township, and further loss of existing residents, leading to a loss of 'living heritage' and active communities. COVID-19 further exacerbated the loss of vibrancy in the historic township with many tourist-related shops and hotels shuttered.
- Wetlands and ponds are filled with soil and used for new urban development. This negatively impacts Luang Prabang's natural heritage and greenery, which is vital in anchoring the local sense of place, in addition to providing food security, health, and climate benefits. Some existing ponds are no longer maintained and are used instead for wastewater collection.
- Increased demand on solid waste management infrastructure and service providers.
- Increased traffic congestion on narrow streets from large, motorized vehicles.
- Urban sprawl on the fringes of the city, which suffer from a lack of planning and lack of basic utilities and services.

Following discussions between ADB, UNESCO, and key city stakeholders, the project team will assist the Luang Prabang provincial government to develop an integrated and smart urban strategy, which will guide how urban development in Luang Prabang could take place between now and 2040. This strategy will have two-fold objectives: (i) it will support Luang Prabang's growth ambitions, and (ii) it will do so while local heritage - an aspect fundamental to Luang Prabang's identity and economy - is protected and enhanced. Smart city solutions, through the strategy, would then be able to help address the development challenges in the city, by seeking to find the right balance between the two objectives. To do this, the strategy will address three key elements of Luang Prabang, namely (i) urban development and mobility, (ii) heritage and the environment, and (iii) tourism, under one single document.

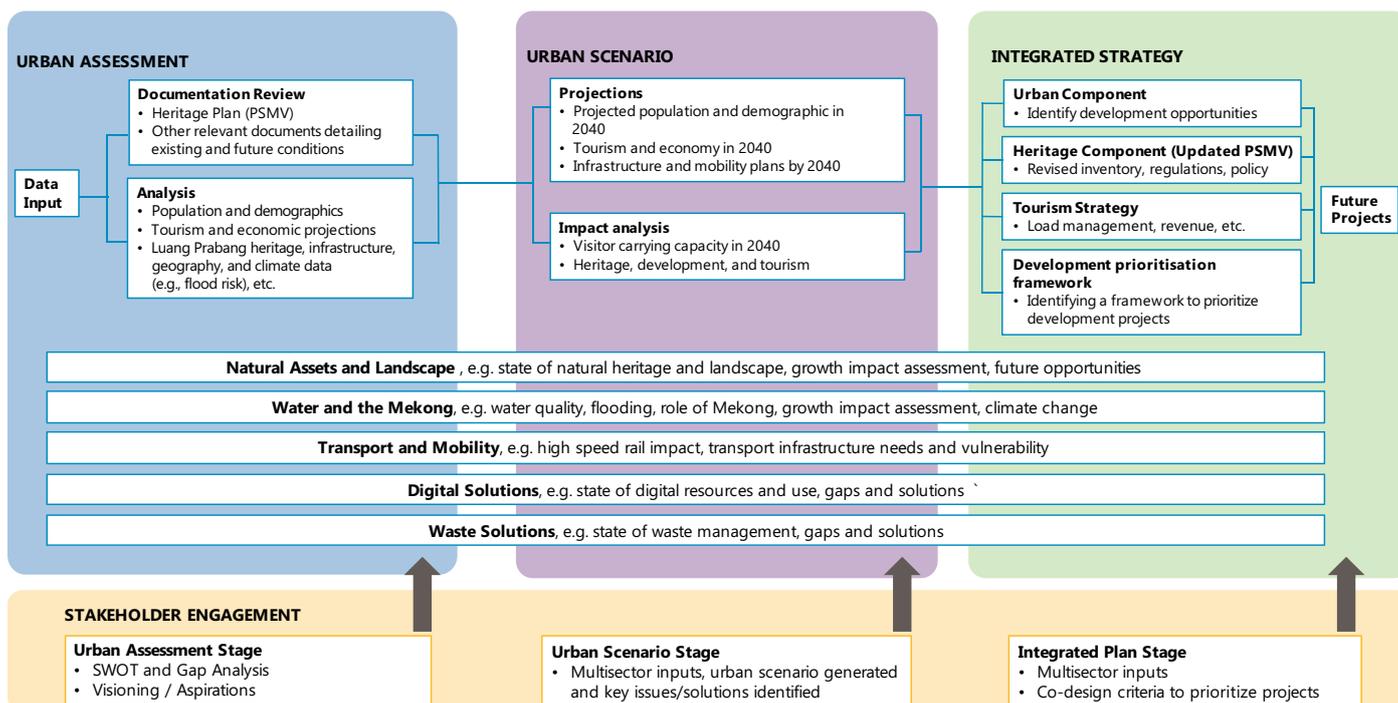
2 THE PROJECT



2.1 OBJECTIVE AND OUTCOMES

The overall objective of the program is to develop an integrated smart urban strategy, by integrating the related urban, heritage, and tourism aspects into a singular document, to guide Luang Prabang's development up to 2040. This will be undertaken through a three-stage methodology (Figure 6) and explained in subsequent chapters of this report.

Figure 6: Proposed Methodology for the Program



In **Stage 1: Urban Assessment**, the team will collect the relevant data and documentation and analyze Luang Prabang's current challenges and opportunities. As part of the inception visit, we have also engaged local stakeholders to understand their longer-term plans and vision for Luang Prabang, which will contribute to the assessment.

In the next stage, **Stage 2: Urban Scenario**, the team will project a plausible urban development scenario for Luang Prabang in 2040. Scenario development will be undertaken in tandem with the Urban Environment Improvement Investment Project (UEIIP) being prepared for prospective ADB financing to ensure consistency between both programs.

Lastly, under **Stage 3: Integrated Strategy**, the team will propose strategies and develop smart solutions to address the challenges and opportunities identified in the first two stages of the project, and also in this final stage. Projects and programs will be prioritized for implementation using criteria co-developed with local stakeholders. This would aid decision-making for subsequent project investments.

2.2 DELIVERABLES

The following deliverables (to be expanded in greater detail in subsequent chapters) will be prepared:

- **Inception Report (D1)** – This refers to this initial report that establishes the foundation and rationale for follow-on project work and its scope.
- **Urban Assessment Report (D2)** – This report is a methodical and data-driven analysis of the situation in Luang Prabang, articulating the strengths, weaknesses, opportunities, and challenges faced in the city across key urban domains.
- **Urban Scenario 2040 Report (D3)** – This report will propose a plausible urban scenario for Luang Prabang in 2040, and will also propose a land use plan based on this scenario.
- **Luang Prabang Smart and Integrated Urban Strategy (D4)** – This strategy document articulates the strategies and potential interventions to be undertaken in Luang Prabang to guide its development until 2040 and will encompass three components: (i) urban and mobility, (ii) heritage and environment, and (iii) tourism.
- **Luang Prabang Smart Intervention Prioritization Framework (D5)** – Supporting the Urban Strategy, the Prioritization Framework identifies how projects are to be prioritized for financing and implementation between now and 2040. This framework will include articulating the criteria to determine the prioritization. The team will also prepare concept notes for “smart urban village” pilots to trial the integrated implementation of smart city initiatives across three village typologies: (i) an existing heritage village, (ii) a “brownfield” village in the buffer zone, and (iii) a “greenfield” village. Smart city applications for urban management, heritage management, and tourism will be covered.

2.3 WORKSHOPS

The above will be delivered through or build upon a series of workshops, including:

- **Inception Workshop (W1)** – This refers to the inception workshop organized during the team’s inception visit, which sought out local stakeholders’ views on smart city development priorities for Luang Prabang.
- **Intermediate Workshop (W2)** – A second workshop with local stakeholders to share results of the Urban Assessment stage as well as the preliminary Urban Scenario.
- **Closing Workshop (W3)** – A final workshop with local stakeholders to co-develop the criteria for project prioritization and share the preliminary Luang Prabang Integrated and Smart Urban Strategy.

2.4 OVERALL PROJECT TIMELINE

The project will run from March 2022 until December 2022.

2.5 PROJECT TEAM

The project team consists of the project members stated in Table 1.

Table 1: Project Team

No.	Position	Candidate
International Experts		
1	Task Team Leader/Urban Planner	Mr. Wei Wang
2	Built Heritage Expert	Mr. Rik Ponne
3	Intangible Tourism Expert	Ms. Tara Gujadhur
4	Transport Engineer	Mr. Richard Sprosen
5	Urban Planner	Mr. Wee Heng Goh
6	Water Engineer	Mr. Paul David Nettleton
7	Landscape Architect	Mr. Muhammad Faiz Bin Zohri
8	Graphic Designer	Ms. Priya Sharma
9	Communication Expert	Ms. Elga Reyes
National Experts		
10	Urban/Transport Planner	Mr. Thenekham Thongbonh
11	Water/Municipal Engineer	Mr. Phomma Veoravanh
12	Disaster Risk Management Specialist	Mr. Anouxay Phommalath

3 STAGE 1: URBAN ASSESSMENT



3.1 OVERVIEW

The purpose of Stage 1 is to develop an assessment of the existing challenges and opportunities in Luang Prabang.

To do this, the AASCTF team will collect urban development, heritage, and tourism data from local authorities and any other published documents. These will include quantitative datasets, such as population and visitor data, as well as qualitative datasets, such as sense of place, heritage quality and attributes, which will help produce a comprehensive situational assessment of Luang Prabang.

The AASCTF team will then undertake a SWOT analysis (strengths, weaknesses, opportunities and threats) within each domain (Urban, Heritage, and Tourism) to identify areas that could be improved and strengthened. Where possible, the team will complement this with geospatial analysis, which will identify spatial trends, gaps, and opportunities within Luang Prabang.

This stage is complemented by the inception visit to Luang Prabang, which entailed site visits, one-on-one discussions, and a workshop with local stakeholders to distil smart city development priorities and collect data.

3.2 OBJECTIVES

The objective of Stage 1 is to identify the present-day opportunities and challenges in urban development, heritage, and tourism in Luang Prabang.

3.3 TIMELINE AND KEY TASKS

The Stage 1 timeline is presented in Figure 7, with the following key tasks for this stage:

- Stakeholder and project mapping
- Inception visit
- Data collection and analysis
- Urban assessment report

Figure 7: Timeline for Stage 1

Month	March					April				May				June				July				August					
Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Stakeholder & Project Mapping																											
Kick-off meeting						●																					
Data Collection																											
Inception Visit & Workshop													●			▲											
Data Analysis																											
Urban Assessment																											▲

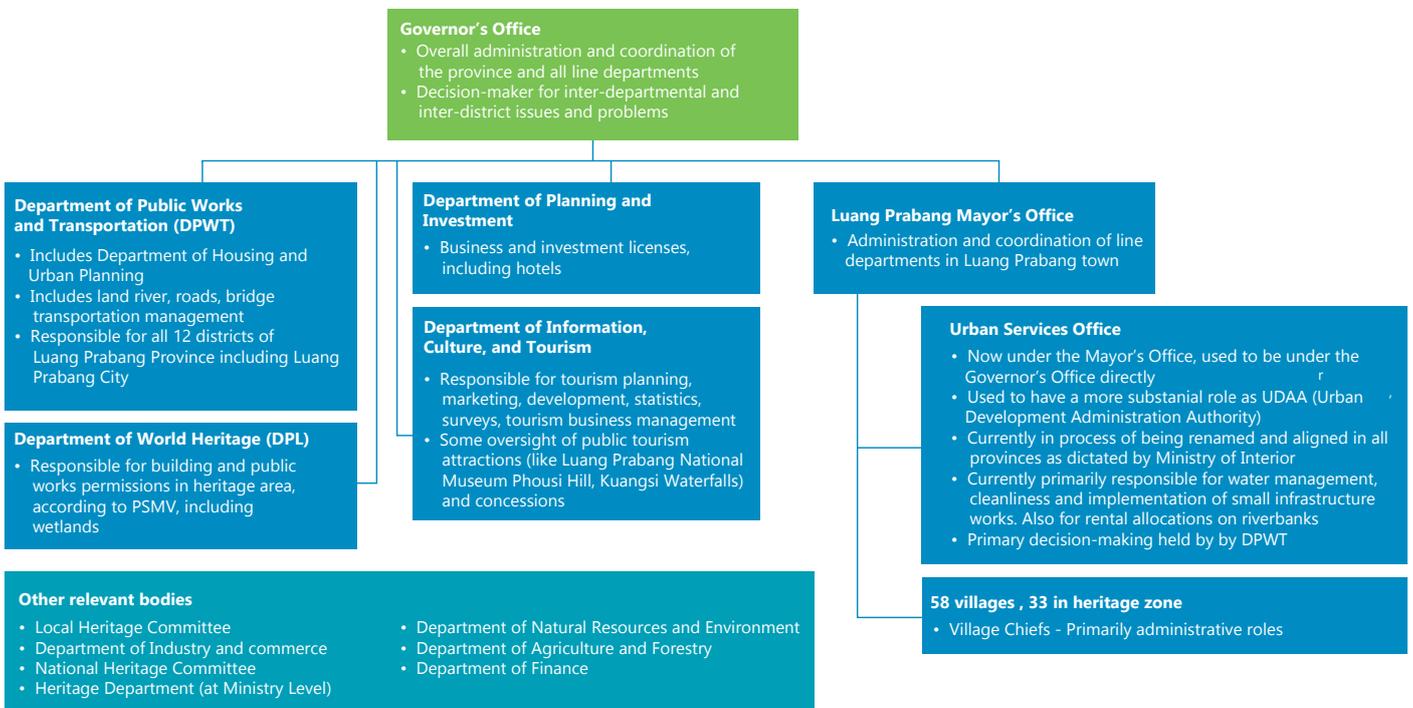
Urban Assessment Report

Note: Circles refer to workshops. Triangles refers to reports.

3.3.1 STAKEHOLDER AND PROJECT MAPPING

The team mapped out all key actors involved in urban development in Luang Prabang to determine how stakeholder engagement could be carried out, as well as to prepare the invitation list for the Inception Workshop. In total, approximately 15 key actors were identified, ranging from local authorities to community leaders (Figure 8).

Figure 8: Key Actors in Urban Planning and Management of Luang Prabang



Furthermore, the team also mapped out projects and initiatives from other development partners to integrate into subsequent analyses (Table 2).

Table 2: Related Projects and Initiatives

No	Name	Objective	Development Partner
1	Urban Environment Improvement Investment Project (UEIIP)	Deliver environmental improvements in areas of wastewater, landfill, streetscape improvements.	ADB
2	Second GMS Tourism Infrastructure for Inclusive Growth Project (TIIGP2)	Improve capacity of public and private tourism stakeholders in Luang Prabang to sustainably manage tourism growth through policy enhancements, industry standards and regulations development, tourism master planning, destination marketing and promotion, cultural and natural heritage interpretation, and support for tourism-related SMEs.	ADB
3	Wetlands Improvement and Sanitation Enhancement in Luang Prabang (WISE) Project	Pilot community management of wetlands in Mano Village.	AFD
4	Luang Prabang Disaster Risk Management Plan (DRMP)	Deliver riverbank protection of Nam Khan River	World Bank
5	Project for Capacity Enhancement for Sustainable World Heritage and Preservation in Luang Prabang	Capacity building for tourism and heritage preservation, e.g., enhancing pottery skills. This includes rehabilitation of ponds and construction of new wastewater drainage systems at Ban Mano.	JICA
6	Master Planning Study for Smart City Development in Luang Prabang City, Lao PDR, Smart City Master Plan	Develop a smart city master plan for Luang Prabang	MLIT

ADB = Asian Development Bank, AFD = Agence Française de Développement (French Development Agency), JICA = Japan International Cooperation Agency, MLIT = Ministry of Land, Infrastructure and Transport (Japan), SME = small and medium enterprise.

3.3.2 INCEPTION VISIT

The team organized an inception visit to Luang Prabang from 21 to 31 May 2022 in order to gain a fuller understanding of its spatial qualities and meet key stakeholders to ascertain their development priorities. In total, the team visited five locations across Luang Prabang, met eight government and four non-government stakeholder offices and departments, and organized an Inception Workshop chaired by Mayor Vienthong Hatsachan and attended by over 40 stakeholders from Luang Prabang.

At the workshop, Mayor Vienthong Hatsachan expressed support of the smart and integrated urban strategy development and agreed that improvement of people's lives is the main objective of this strategy. Other key points raised by participants in the workshop include:

- Building up the capacity of the local people to use digital tools will be integral to the success of the strategy.
- Smart city initiatives must support the realization of development priorities for Luang Prabang post-COVID-19. Tourism management was identified as one key priority with smart city ideas proposed, including smart ticketing and visitor management systems, and smart shuttles for visitors.
- Smart city initiatives should be staged for implementation over the 15-year period of the strategy (e.g., 5-year initiatives, 10-year initiatives). This is because certain smart city initiatives will hinge on having foundational processes or initiatives being developed first before they can be implemented (e.g., smart urban management will require detailed urban planning to be developed first).

The team also led the participants through a prioritization exercise, where participants voted for the three smart city initiatives (out of 11 initial ideas) to be prioritized for implementation. These are:

- detailed planning using sustainable urban planning principles,
- smart shuttle service for Luang Prabang visitors, and
- green infrastructure to treat wastewater.

The team will factor these results, as well as results of a survey, into our findings. The detailed itinerary, workshop program, and workshop slides are listed in Appendices A, B, and C respectively.

3.3.3 DATA COLLECTION

Following the inception visit, the team is now consolidating quantitative and qualitative datasets from a range of sources (e.g., local authorities, published statistics, and documents) for analysis. The team is also preparing the base map to facilitate spatial analysis.

In addition, the team is preparing an online survey for non-governmental stakeholders to seek further input and views on the implementation of smart city initiatives in Luang Prabang.

3.3.4 DATA ANALYSIS

Concurrently, the team has started undertaking a SWOT analysis based on preliminary data accumulated, including geospatial analytics, which would be used as the basis to suggest interventions.

3.4 PRELIMINARY FINDINGS

The AASCTF team has preliminarily identified a few key areas, which will be explored further in subsequent project stages, namely:

- Accessibility to amenities and utilities in new urban villages, e.g., schools, markets, electricity, and water. Amenities and utilities are critical to the formation of new village communities; thus, there is a need to explore the extent by which these facilities are provided in new urban areas.¹⁴
- Mobility within the urban areas, especially by tourists and visitors, is a key issue raised by local stakeholders.
- Visitor management in key attractions needs to be assessed, since prior to COVID-19, overcrowding in tourist attractions such as Phousi Hill and Kuangsi Waterfalls was common, which can be a safety issue.
- Urban monitoring systems, which will support local authorities to track and manage delivery of urban services.

3.5 DELIVERABLES

There are two key deliverables in this first stage. D1 or this Inception Report will set the foundation for future work under the AASCTF pilot project. It presents the impetus, scope, and detailed methodology for the project, including providing preliminary findings from work completed to date.

The Urban Assessment Report (D2) will be the detailed document that centers on the development challenges and opportunities of Luang Prabang, including any geospatial analysis of the urban areas.

4 STAGE 2: URBAN SCENARIO



4.1 OVERVIEW

The purpose of this stage is to develop a plausible urban development scenario for Luang Prabang in the year 2040, that is, where Luang Prabang could physically develop and expand to by 2040. Work in this stage helps the team to anticipate land use needs in the future and propose a feasible planning solution to ensure that sufficient land is planned for, while protecting the integrity of the historic township. This will be done by converting population and tourist visitor projections into possible land need projections, which can then be mapped out on a plan of Luang Prabang.

Thereafter, the team will assess the development scenarios prepared for Luang Prabang and will select a most feasible option, based on sustainable planning principles that are in line with the Sustainable Development Goals (SDGs) and the New Urban Agenda. The team will then prepare a land use plan based on the preferred development scenario to identify the infrastructure and development priorities and interventions to be pursued.

4.2 OBJECTIVES

The objectives of Stage 2 are two-fold:

- identify a plausible urban development scenario for Luang Prabang in 2040, and
- develop a land use plan to guide Luang Prabang's urban development.

4.3 TIMELINE AND KEY TASKS

The tentative Stage 2 timeline is presented in Figure 9, with the following key tasks for this stage:

- data collection and projection for population and tourist visitor
- develop urban scenario
- develop concept land use plan
- intermediate visit
- Urban Scenario Report

Figure 9: Timeline for Stage 2

Month	June					July					August				September			
Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Task																		
Population & Visitorship Data Collection	■	■	■															
Land Demand Projection					■	■	■	■	■	■								
Develop Urban Scenario										●	Presentation to Stakeholder (online)							
Land Use Plan Preparation											■	■	■	■				
Intermediate Mission															●	Intermediate Visit		
Urban Scenario Report Preparation															■	■	■	■

Urban Scenario Report

Note: Circles refer to workshops. Triangles refers to reports.

4.3.1 LAND DEMAND COMPUTATION

Using updated population and tourist visitor projections, the AASCTF team will project the amount of land needed between now and 2040 to accommodate the additional number of residents and visitors. This will be derived through simple mathematical models that use population, household size, tourist visitor numbers, and average occupancy rates of hotel rooms.

4.3.2 URBAN SCENARIO PREPARATION

With the projected additional land needs calculated, the team will utilize the same urban structure scenarios being prepared for the UEIIP and by Japan’s Ministry of Land, Infrastructure and Transport (MLIT) to identify the possible locations where such land needs could be located within Luang Prabang. Concurrently, the Department of World Heritage (DPL) is planning to update the PSMV (*Plan de Sauvegarde et de Mise en Valeur*) to better provide development guidance in the Luang Prabang heritage area. Our project will support the heritage resource inventory updating component of this exercise, which will also help us gain a better understanding of the urban scenario in the town’s core heritage area.

The team will then assess and identify, using sustainable development principles derived in the New Urban Agenda, the plausible and feasible urban development scenario for Luang Prabang.

4.3.3 LAND USE PLAN PREPARATION

With the urban scenario prepared, the team will proceed with developing a concept land use plan to identify the different types of land uses, e.g., housing, commercial, parks, etc., that would need to be safeguarded. This plan will serve as basis for the development of urban, heritage, and tourism strategies in the next stage.

4.3.4 INTERMEDIATE VISIT

The AASCTF team will undertake an intermediate visit to collect any other outstanding data as well as to touch base with local stakeholders to share findings from Stage 1, as well as the preliminary urban scenario prepared for Luang Prabang. Where feasible, the team will conduct capacity building within specific domains for targeted groups.

4.4 DELIVERABLES

Upon the finalization of Stage 2, the AASCTF team will deliver the Urban Scenario Report (D3), which will set out the plausible urban development scenario for Luang Prabang in 2040. Accompanying the scenario will be a land use plan that identifies which land use needs could be developed across the urban area.

5 STAGE 3: INTEGRATED STRATEGY



Photo: AASCTF Task Team

5.1 OVERVIEW

The final stage of the process will be to develop the Luang Prabang Smart and Integrated Urban Strategy. Using the opportunities and challenges identified in Stage 1, the team will focus on crafting a series of strategies to guide the realization of the plausible urban scenario developed in Stage 2. These strategies will cover all three components of urban development, heritage, and tourism.

Thereafter, the team will focus on identifying smart projects and programs to support the realization of these strategies. These projects and programs could be infrastructural and non-infrastructural in nature (for instance, smart capacity building) and would be prioritized for implementation based on a series of agreed criteria with local stakeholders.

The team will also study how these smart city projects could be realized in the context of a “pilot smart urban village”. This could serve as a blueprint for replication across Luang Prabang and potentially the country. The team will prepare concept notes for pilot activities that address urban, heritage, and tourism management as part of the smart urban village initiative.

5.2 OBJECTIVES

The objectives of Stage 3 are two-fold:

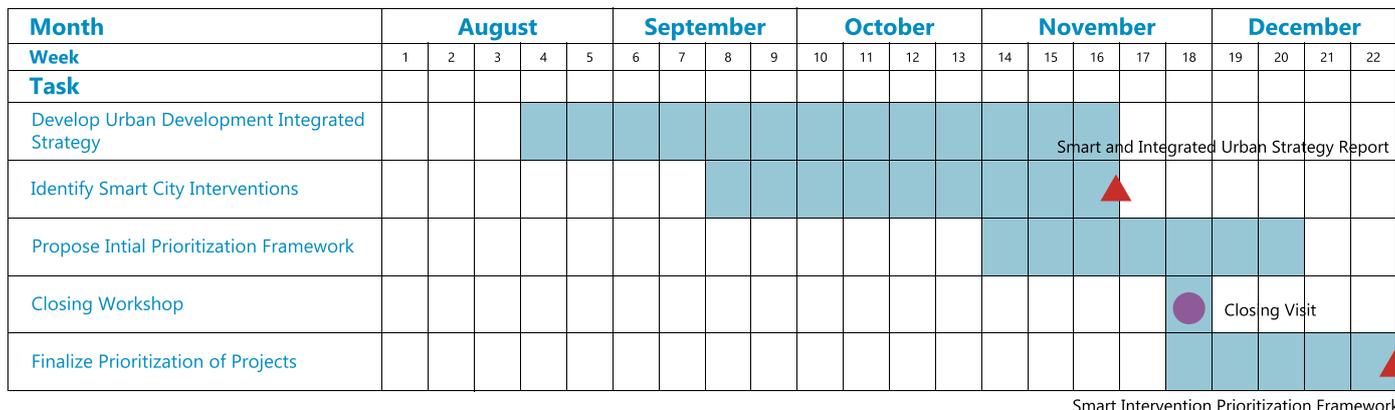
- This stage aims to articulate an integrated and smart urban strategy to guide how urban development in Luang Prabang could take place from now until 2040. These should include aspects related to greenfield and infill urban development, transport, urban infrastructure, built heritage, intangible heritage, landscape, climate resilience and tourism.
- Stage 3 also aims to ensure a principled approach in allocating resources (including funding) towards project investment.

5.3 TIMELINE AND KEY TASKS

The tentative Stage 3 timeline is presented in Figure 10, with the following key tasks for this stage:

- develop an urban development integrated strategy
- identify smart city interventions and design the smart urban village initiative
- final visit
- project prioritization

Figure 10: Timeline for Stage 3



Note: Circles refer to workshops. Triangles refers to repots.

5.3.1 STRATEGY CRAFTING

Using the findings from Stages 1 and 2, the team will craft the integrated strategy to direct urban development efforts for Luang Prabang. The strategy will be made up of three key components: urban development, heritage, and tourism. Within each component will be a series of strategic directives that could be considered by local stakeholders. These directives could take the form of a plan (e.g., a transport plan), or policy (e.g., expanding the concept of heritage to include intangible heritage considerations). Several initial areas being considered for the strategy include:

- New development areas: Where should new urban development areas be, and what should they be used for?
- Mobility and transport: What new transport systems should be introduced to support mobility needs of visitors and tourists?
- Built heritage: What is the built heritage quality in the Luang Prabang heritage zone now, and what are the updated policies that could guide built heritage protection and management?
- Intangible heritage: What are important intangible heritage resources that should be included as part of the broader heritage review and PSMV updating by the Department of World Heritage?
- Tourist facilities and attractions: Where are the new tourist facilities (e.g., hotels) and attractions that could be introduced to Luang Prabang?

5.3.2 SMART CITY INTERVENTIONS FORMULATION

These strategic directives will serve as basis for the team to propose smart city interventions, e.g., a smart mobility system to support the transport plan or policy directive. This sequence of work is deemed as important, in reference to ADB’s Smart City Analytical Framework, which proposes that a smart city project should be developed to serve a broader strategic directive and objective and should not be a means unto itself.

The team will also consider smart city enablers (which could be proposed as smart city interventions) that are critical to ensure that the Luang Prabang smart city can be successfully realized.

5.3.3 CLOSING VISIT

The objective of the closing field visit will be for the AASCTF team to work with local stakeholders to co-develop the prioritization criteria, which will then be used to prioritize smart interventions for implementation. The AASCTF team will also share the final Urban Scenario and any preliminary strategies.

5.3.4 PROJECT PRIORITIZATION

Using the criteria co-developed with local stakeholders, the team will prioritize smart interventions for implementation. These could include aspects such as potential benefits for residents and tourists, time sensitivity, costs, and implementability. Thereafter, the projects will be screened by the framework and a priority list will be developed.

At this stage, the team will also identify possible smart city projects that could be implemented within the “smart urban village” pilots, which will serve as a demonstration for subsequent scaling up in Luang Prabang.

5.3.5 DELIVERABLES

There are two key deliverables under this stage.

The Luang Prabang Smart and Integrated Urban Strategy (D4) will detail the strategies that support the development of the plausible urban scenario prepared in Stage 2. This will be complemented by the Luang Prabang Smart Intervention Prioritization Framework (D5), which charts the criteria for prioritizing smart interventions as well as the prioritized list of projects that can be implemented by the respective stakeholders, including the smart urban pilot activity concept notes.

APPENDIX A



INCEPTION VISIT ITINERARY

Date	Event	Location
21 May 2022 Saturday	1200 – Arrive Vientiane, travel to hotel (Crowne Plaza) & check in	Vientiane
22 May 2022 Sunday	0800 – Train from Vientiane to Luang Prabang 1030 – Walkabout the High-Speed Rail Station, travel to hotel (Belle Rive) and check in 1300 - Drive to key areas of central Luang Prabang, southern developments (including Pullman Hotel) and northern peri-urban areas.	Luang Prabang
23 May 2022 Monday	0900 – Meet Office of World Heritage (DPL) 1030 – Visit Ban Mano wetlands and ponds 1100 – Meet with GRET (Arnaud Vontobel) 1530 - Discussion of working arrangement, timeline & deliverables with ADB (Steven Schipani & Soudalay Souphanouvong)	DPL Office, Luang Prabang Ban Mano Le Banneton Popolo
24 May 2022 Tuesday	1000 – Team A: Meet JICA for CEML Project (Mr Ogawa) 1030 – Team B: Join GRET discussion with Ban Mano Wetlands Committee 1400 – Courtesy call with Chairperson of AASCTF Steering Committee, Mayor of Luang Prabang 1600 – Visit Maison Dalabua Hotel & interview with owner, Toune Sisouphanthavong	Luang Prabang Tourism Office Wat Manorom Mayor Office, Luang Prabang Maison Dalabua Hotel

Date	Event	Location
25 May 2022 Wednesday	0900 – Meet Mayor of Chompeth District 1000 - Visit Chompeth (Xieng Maen, Green Jungle Park, District Center, Special Economic Zone) 1230 – Lunch 1400 - Visit new urban growth areas north and south of Luang Prabang, e.g., near Souphanouvong University, Route 13 corridor and Luang Prabang town bypass road, High-speed rail area 1730 – Dry-run & equipment testing	Chompeth District Administration Office The Tea House Luang Prabang View Hotel
26 May 2022 Thursday	0900 – Inception Meeting with Luang Prabang Smart City Steering Committee and other relevant stakeholders 1200 – Lunch 1400 – Meet Department of Public Works and Transport (DPWT) 1600 – Meet Department of Planning and Investment (DPI)	Luang Prabang View Hotel Luang Prabang View Hotel DPWT Office, Luang Prabang DPI Office, Luang Prabang
27 May 2022 Friday	0900 – Meet Office of World Heritage (DPL) 1200 – Lunch 1400 – Meet Department of Information, Culture and Tourism (DICT) 1530 – Meet Urban Services Office (USO) 1730 – World Heritage Celebration at Heuan Chan	DPL Office, Luang Prabang DICT Office, Luang Prabang USO Office, Luang Prabang

Date	Event	Location
28 May 2022 Saturday	1630 – Check-in with ADB (Steven Schipani)	The Tea House
29 May 2022 Sunday	0900 – Informal field survey for landscape and village structure of Ban Mano, Ban Meunna, Ban Houaxieng and Ban Meuan Gnga 1300 – Meet with Singapore Investor (Benny Kong)	Respective Villages Joma
30 May 2022 Monday	0930 – Debrief with Deputy Mayor of Luang Prabang City 1400 – Flight from Luang Prabang to Vientiane 1600 – Debrief with Institute of Public Works and Transport	Mayor Office, Luang Prabang Vientiane
31 May 2022 Tuesday	0815 – Debrief Department of Housing and Urban Planning 1245 – Flight to Singapore	Vientiane

APPENDIX B



Photo: AASCTF Task Team

INCEPTION WORKSHOP PROGRAM

Objectives

- Establish context and scope for project
- Hear stakeholders' vision and ambition for Luang Prabang
- Share preliminary urban assessment and initial smart city initiatives

Details

Date: 26 May 2022, Thursday

Time: 0900-1300, inclusive of lunch

Venue: Luang Prabang View Hotel

Time	Activity	Lead
0900-0910	Welcome remarks by Mayor of Luang Prabang	Mayor
0910-0915	Remarks by ADB	ADB
0915-0920	Remarks by Australian Embassy	Australian Embassy
0920-0925	Remarks by UNESCO	UNESCO
0925-0930	Photo-Taking	Faiz
0930-0940	Introduction to AASCTF and Consultant Team	Wei
0940-1030	What is a Smart City? - An overview of smart cities Project Scope - Context for project - Scope of work, methodology and key deliverables - Timelines Questions and Answers	Wei
1030-1045	Tea break	
1045-1130	Preliminary urban assessment and initial smart city ideas - Preliminary desktop findings - Best practices - Initial smart city ideas sharing Questions and Answers	Wei
1130-1200	Survey - Written survey to solicit feedback from participants Sticker voting activity to identify "Top 3 Smart City Priority Initiatives"	Weit
1200-1300	Lunch	

APPENDIX C



Photo: AASCTF Task Team

WORKSHOP PRESENTATION SLIDES



ຈຸດປະສົງຂອງກອງປະຊຸມ Objectives of Workshop



1. ທຳຄວາມເຂົ້າໃຈບັນຫາ ແລະ ຂອບເຂດສຳລັບໂຄງການ
Establish context and scope for project
2. ພັງວິໄສທັດແລະຄວາມມັ່ງຫວັງຂອງຫຼວງພະບາງ ຫລັງ ໂຄວິດ
Hear your vision and aspirations for post-COVID Luang Prabang
3. ແບ່ງປັນການປະເມີນຕົວເມືອງເບື້ອງຕົ້ນແລະການລິເລີ່ມປຶກສາຫາລືກ່ຽວກັບຕົວເມືອງ ໃນເບື້ອງຕົ້ນ
Share preliminary urban assessment and initial smart city initiatives

ໂຄງການ Programme



0900-1030	1045-1200
<p>ໃຫ້ກຽດຕ້ອນອັນໃດຍ ທ່ານ ວຽງທອງ ສັດສາຈັນ ເຈົ້າຄອງນະຄອນຫຼວງພະບາງ Welcome Remarks by Mr. Viengthong Hatsachan, Mayor of Luang Prabang</p> <p>ຂໍສະເຫດຂອງ ADB, ສາທາງນະຄອນຕາວິ ແລະ UNESCO Remarks by ADB, Australian Embassy and UNESCO</p> <p>ຖ້ຳຟຸບ Photo-taking</p> <p>ການແນະນຳ AASCIF ແລະສົມມຸດຕິຢືນຢັນ Introduction to AASCIF and Consultant Team</p> <p>Smart City ແມ່ນຫຍັງ? What is a Smart City?</p> <p>ຂອບເຂດໂຄງການ Project Scope</p> <p>ພັກຜ່ອນຊາ Tea Break</p>	<p>ການປະເມີນຕົວເມືອງ (ເບື້ອງຕົ້ນ) ແລະແນວຄວາມຄິດຂອງເມືອງອັດສະລິຍະເບື້ອງຕົ້ນສຳລັບຫຼວງພະບາງ Urban Assessment (Preliminary) and Initial Smart City Ideas for Luang Prabang</p> <p>ສະຫຼຸບຄວາມຄິດ Concluding Thoughts</p> <p>ການສຳຫຼວດ Survey</p> <p>ອາຫານມ່ຽງ Lunch</p>

ໃຫ້ກຽດກ່າວຕ້ອນຮັບແລະມີຄວາມເຫັນ ໂດຍ ທ່ານ ວຽງທອງ ສັດສາຈັນ ເຈົ້າຄອງນະຄອນຫຼວງພະບາງ

Welcome Remarks by
Mr Viengthong Hatsachan,
Mayor of Luang Prabang

ຜູ້ຕາງໜ້າ ADB ມີເຫັນກ່ຽວກັບໂຄງການ

Remarks by ADB

ຜູ້ຕາງໜ້າຂອງສະຖານທູດອົດສະຕາລີ ມີຄວາມເຫັນ

Remarks by Australian Embassy

ຜູ້ຕາງໜ້າ UNESCO ມີຄວາມເຫັນ

Remarks by UNESCO

Photo-Taking

ການແນະນຳ AASCTF ແລະທີມງານທີ່ປຶກສາ

Introduction to AASCTF and Consultant Team

ASEAN Australia Smart Cities Trust Fund ພາບລວມ ASEAN Australia Smart Cities Trust Fund Overview

<p>ໄລຍະເວລາໂຄງການ: PROJECT DURATION: 2019 - 2024</p>	<p>ການຮັບຮອງເອົາການແກ້ໄຂດ້ວຍວະນິທິສິດຕອນເຊື່ອບັນຸງເຮັດໜ້າທີ່ຫຼັກແຕ່ລະໂຂງເຂດ: ADOPTION OF DIGITAL SOLUTIONS TO IMPROVE KEY FUNCTIONAL AREAS:</p>	<p>ການຕອບບັນຫາກວມລວມ ADDRESSING CROSS-CUTTING THEMES:</p>	<p>ຜົນຜະລິດໂຄງການ: OUTPUT: • Capacity development • Partnership support • Investment capital</p>
<p>ທຶນທັງໝົດ : TOTAL FUNDING : \$ 13.95 M (A\$ 20 M)</p>	<ul style="list-style-type: none"> CITY PLANNING SYSTEMS SERVICE DELIVERY FINANCIAL MANAGEMENT 	<ul style="list-style-type: none"> GENDER EQUALITY & SOCIAL INCLUSION CLIMATE CHANGE PRIVATE SECTOR 	<p>ການສອກຫຼາດແບບດີທີ່ IDENTIFY scalable & replicable best practices in ASEAN</p>

Consultant Team

Wang Wei Task Team Leader Urban Planning Specialist	Thengkham Thongbonh Deputy Team Leader Urban Planning Specialist		
Henricus Brautius (Rik) Ponne Built Heritage Expert	Tara Gujdhur Intangible Heritage & Tourism Expert	Richard Sprosen Transport Engineer	Muhammad Faiz Bin Zohri Landscape Architect
Anouxy Phommalath Disaster Risk Management Specialist	Phomma Veoravanh Water/Municipal Engineer	Goh Wee Heng Urban Planner	Paul David Nettleton Water Engineer

Smart City ແມ່ນຫຍັງ? What is a Smart City?



'ຄວາມສະຫງາດ' ບໍ່ພຽງແຕ່ກ່ຽວກັບເຕັກໂນໂລຢີທີ່ປະສິດທິພາບຂອງລະບົບເທົ່ານັ້ນ.

'Smartness' is not solely about the technology or efficiency of systems.

Smart ແມ່ນກ່ຽວກັບການພັດທະນາແລະນຸ່ງໃຊ້ຄົນເປັນເລື່ອງທຳອິດ. Smart is about putting people first.



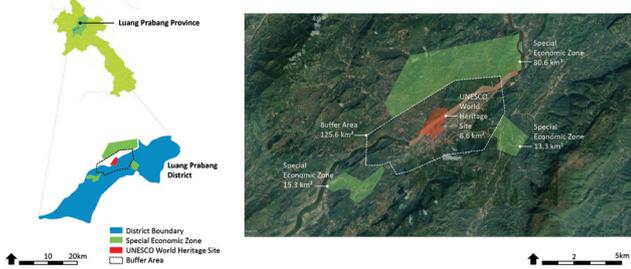
ຂອບເຂດການວິເຄາະ Smart City ທີ່ ADB ນຳໃຊ້: ADB Smart City Analytical Framework: 'Smart' as a means; 'Livability' as a goal

Vision	Making Cities More Livable					
High-Level Objectives	Green	Inclusive	Competitive	Resilient		
Intervention Areas	Urban and Land Use Planning					
	Smart Mobility & Transport	Smart Energy	Smart Environment	Smart Water	Smart Climate & Disaster Risk Management	Smart Food & Agriculture
	Smart Government	Smart Economy & Jobs	Smart Education	Smart Health	Smart Society & Culture	Smart Safety
Enabling Factors	ICT Infrastructure					
	Policy & Institution	Technology & Innovation	Business & Finance	Digital Skills & Capacity	Planning & Coordination	

ເນື້ອໃນ: ເປົ້າໝາຍການພັດທະນາແບບຍືນຍົງ ແລະ ວາລະໃໝ່ການພັດທະນາຕົວເມືອງໃນ ສປປ ລາວ.
Context: Sustainable Development Goals and New Urban Agenda in Lao P.D.R.



ພາບລວມຂອງຫຼວງພະບາງ
Overview of Luang Prabang



ຫຼວງພະບາງ ເປັນເມືອງມໍລະດົກໂລກ ແຫ່ງທຳອິດຂອງ ສປປ ລາວ
Luang Prabang as First UNESCO World Heritage Site in Lao PDR



ການຂະຫຍາຍຕົວຂອງປະຊາກອນ ແລະນັກທ່ອງທ່ຽວ
Population and Tourist Growth



- MPI: ເມືອງຫຼວງພະບາງ ອາດວ່າຈະມີປະຊາກອນເພີ່ມຂຶ້ນ 24.6% ລະຫວ່າງປີ 2015 ຫາ 2035.
- MPI: Luang Prabang district projected to see 24.6% increase in population between 2015 and 2035
- MICT: ຈຳນວນນັກທ່ອງທ່ຽວຕ່າງປະເທດມາແຂວງຫຼວງພະບາງເພີ່ມຂຶ້ນ 34,9% ໃນລະຫວ່າງປີ 2017 ຫາ 2019.
- MICT: No. of foreign visitors to Luang Prabang province increased by 34.9% between 2017 and 2019
- **ຜົນສະທ້ອນ:** ການພັດທະນາໃນໄລຍະຍາວອາດມາກົດດັນຕໍ່ຫຼວງພະບາງດ້ວຍສາເຫດປະຊາກອນ ແລະນັກທ່ອງທ່ຽວເພີ່ມຂຶ້ນ
- **Implication:** Longer term development pressures on Luang Prabang to cater to population and visitor increase



ແອອັດເທິງພູສີ
Overcrowding on Mount Phousi



ການຄ້າຂອງຖະໜົນຕົ້ນຕໍ, ການສູນເສຍມໍລະດົກ ແບບແຜນດ້າວົງຊີວິດ ຂອງເມືອງມໍລະດົກ
Loss of Living Heritage along Main Street





ຜົນຖານໂຄງລ່າງດ້ານສາຍພົວພັນ ແລະ ການລະບາຍນ້ຳບໍ່ພຽງພໍ, ມັນລະເຜີຍທາງນ້ຳໃນໜອງ
Inadequate Sanitation and Drainage Infrastructure, Water Pollution in Ponds



ສະພາບການຈະລາຈອນທີ່ຄັບຄັງຢູ່ຕາມຖະໜົນ
Worsening Traffic Conditions on Roads

**ຄວາມທະເຍີທະຍານ
 Ambition**

“... ມີເນື້ອເຫຼັກການທ່ອງທ່ຽວ ແລະ ການເຊື່ອມຕໍ່ລາກາດພື້ນ, ຫຼວງເປະທາງອາດຈະເປັນເມັງອາທິດທີ່ມີຄວາມສະອາດ, ຂຽວສົດໃສ, ແອັດລອນແຫ່ງການເປັນຢູ່ ແລະ ເປັນເມັງອາທິດສະຫວາດທີ່ມີລະດັບໄລກາດເປັນຫຼັກ...”

“... a city of tourism centre and regional connection, Luang Prabang envisions to be a clean, green, livable environment and smart city with world heritage in its core...”



**ສິ່ງທ້າທາຍການພັດທະນາ
 Development Challenge**

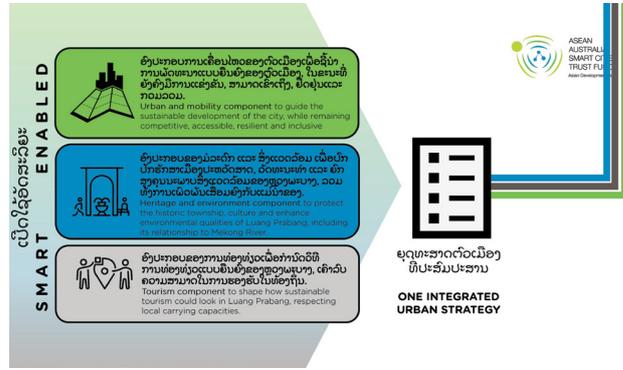
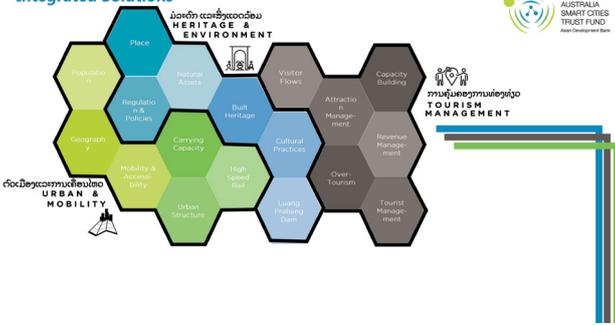


ເຮັດແນວໃດເພື່ອບັນລຸຄວາມດຸ່ນດ່ຽງອັນດີວ່າການອະນຸລັກມໍລະດົກ ແລະ ສາມາດມະຂຽງຫຼວງເປະທາງ ອາດອາດມີທາງທ່ອງທ່ຽວ ແລະ ເປັນທາງການນະໂຍບາຍຈະເຮັດໆດັ່ງນັ້ນ?

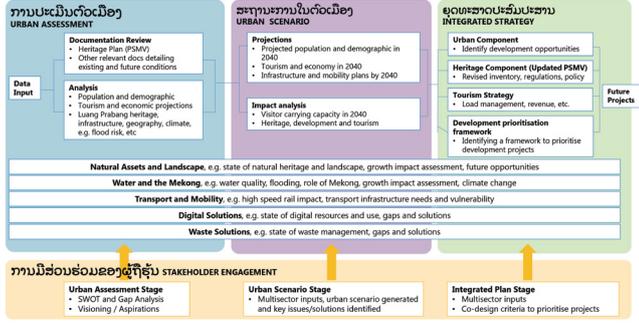
How to achieve a fine balance between preserving Luang Prabang's heritage and character along with its tourism and urban growth objectives?



**ການແຕກໄຂແບບປະສົມປະສານ
 Integrated Solutions**



ວິທີການ Methodology



**ຜົນຖານຄັ້ງສຸດທ້າຍ
 Final Deliverables**



ບູລິມະສິດການພັດທະນາ - ຕົວຢ່າງຂອງ ເຄື່ອງມືສຳລັບຈັດລຳດັບຄວາມສຳຄັນແຜນເມືອງທີ່ມີ ຊີວິດຊີວາຂອງ ເມືອງ Makassar
Development Prioritisation Framework – Example of Makassar Livable City Plan Prioritisation Tool



- ຂໍ້ມູນສຳລັບການແຈກແຈງໂຄງການອັດສະລິຍະຊວມຢູ່ໃນຖານຂໍ້ມູນທີ່ວ່າໄປ
- Data for smart projects interventions collated in common database
- ສາມາດເຂົ້າເຖິງໃນຮູບແບບການໂຕ້ຕອບ
- Accessible in interactive format

ໄລຍະເວລາຈັດຕັ້ງປະຕິບັດໂຄງການ ແລະ ການສ້າງແລະສົ່ງບັດລາຍງານ
Proposed Timeline and Deliverables



34

ຂໍ້ລິເລີ່ມຂອງ ADB ທີ່ຫຼວງພະບາງ
Complementary ADB Initiatives in Luang Prabang

- ທຶນຖານໂຄງລ່າງທຳມະຊາດສຳລັບເມັດສະຫຼາດ (GMS ຄົວເມັດ) ແລະ ສື່ສານ ເພື່ອກຳລັງກະທຳການສຳເລັດງານ ທີ່ ສວ ດ້ານໃຕ້ດາ ສາລັບເມັດສະຫຼາດ ທີ່ ຫຼວງພະບາງ ແລະ ມອດຕິດ, ການສະໜອງການສຳລຸດສິດ, ການສະໜອງການສຳລຸດສິດ ທີ່ ຫຼວງພະບາງ ແລະ ມອດຕິດ.
- ສື່ສານ ເພື່ອກຳລັງກະທຳການສຳລຸດສິດ ທີ່ ຫຼວງພະບາງ ແລະ ມອດຕິດ, ການສະໜອງການສຳລຸດສິດ ທີ່ ຫຼວງພະບາງ ແລະ ມອດຕິດ.
- ສາມາດເພີ່ມທຳມະຊາດສຳລັບເມັດສະຫຼາດ ໃນ 3 ດ້ານຕົ້ນຕໍ: ການສະໜອງການສຳລຸດສິດ ທີ່ ຫຼວງພະບາງ ແລະ ມອດຕິດ, ການສະໜອງການສຳລຸດສິດ ທີ່ ຫຼວງພະບາງ ແລະ ມອດຕິດ, ການສະໜອງການສຳລຸດສິດ ທີ່ ຫຼວງພະບາງ ແລະ ມອດຕິດ.
- ສາມາດເພີ່ມທຳມະຊາດສຳລັບເມັດສະຫຼາດ ໃນ 3 ດ້ານຕົ້ນຕໍ: ການສະໜອງການສຳລຸດສິດ ທີ່ ຫຼວງພະບາງ ແລະ ມອດຕິດ, ການສະໜອງການສຳລຸດສິດ ທີ່ ຫຼວງພະບາງ ແລະ ມອດຕິດ, ການສະໜອງການສຳລຸດສິດ ທີ່ ຫຼວງພະບາງ ແລະ ມອດຕິດ.
- ໂຄງການທຳມະຊາດສຳລັບເມັດສະຫຼາດ ໃນ 3 ດ້ານຕົ້ນຕໍ: ການສະໜອງການສຳລຸດສິດ ທີ່ ຫຼວງພະບາງ ແລະ ມອດຕິດ, ການສະໜອງການສຳລຸດສິດ ທີ່ ຫຼວງພະບາງ ແລະ ມອດຕິດ, ການສະໜອງການສຳລຸດສິດ ທີ່ ຫຼວງພະບາງ ແລະ ມອດຕິດ.

ຄຳຖາມແຈກແຈ້ງ
Guiding Questions



1. ດ້ວຍຄຳ ອະທິບາຍກ່ອນ ໜ້າ ທີ່ຄຳວ່າ 'ສະຫຼາດ (ອັດສະລິຍະ)' ກ່ຽວກັບຄົນ ຫຼວງພະບາງ, ເມືອງອັດສະລິຍະ ຫຼວງພະບາງຈະເປັນແນວໃດດັ່ງນັ້ນເຈົ້າ?
With the earlier explanation that 'smart' is about people, what would a smart Luang Prabang look like to you?
2. ບຸລິມະສິດການພັດທະນາຕົວເມືອງ, ດ້ານມໍລະດົກ ແລະ ການທ່ອງທ່ຽວສຳລັບຫຼວງພະບາງຫຼັງ COVID-19 ແມ່ນຫຍັງ?
What are your urban development, heritage and tourism priorities for Luang Prabang post-COVID-19?
3. ຂະນະນີ້ທາງດ້ານໄຟຮາງສຳລັບເມັດສະຫຼາດ, ທ່ານເຫັນວ່າຈະສົ່ງຜົນກະທົບຕໍ່ເມືອງຫຼວງພະບາງໃນ ອະນາຄົດແນວໃດ?
With the High-Speed Rail now completed, how do you see it impacting Luang Prabang in the future?

ພັກຜ່ອນຊາ
Tea Break

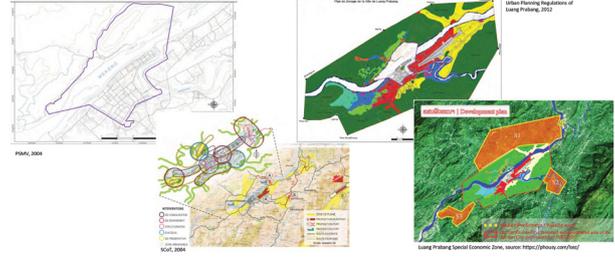
ການປະເມີນຕົວເມືອງ (ເບື້ອງຕົ້ນ) ແລະແນວຄວາມຄິດຂອງເມືອງອັດສະລິຍະເບື້ອງຕົ້ນ
Urban Assessment (Preliminary) and Initial Smart Cities Ideas

ວິທີການປະເມີນຕົວເມືອງ: ໂຄງຮ່າງການວິເຄາະເມືອງທີ່ມີຊີວິດຂອງ ADB
A way of assessing cities: ADB Livable City Analysis Framework

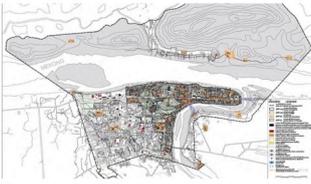


Source: Rermbd, 2021

ການພັດທະນາຕົວເມືອງໃນແຂວງຫຼວງພະບາງຊີ້ນຳໂດຍກອບການວາງແຜນຕົວເມືອງຫຼາຍດ້ານ
Urban development in Luang Prabang guided by multiple urban planning frameworks

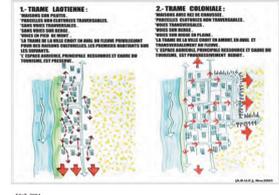
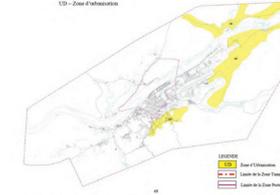


ເສີມຂະຫຍາຍ PSMV ເພື່ອພິຈາລະນາວຽກງານ ມໍລະດົກທີ່ບໍ່ມີຕົວຕົນ
Enhancing PSMV to consider intangible heritage



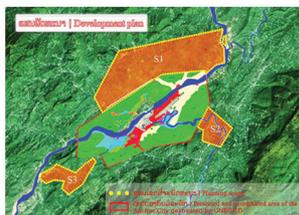
- PSMV ແມ່ນຮຸນໃສ່ການລະດັບການກໍ່ສ້າງ (facades, setback, ອຸປະກອນ, ແວວອິນງ) PSMV is focused on the building level (facades, setback, materials, etc)
- ໂອກາດທີ່ຈະຄິດກ່ຽວກັບສາທາລະນະຊົນ: ຕົວຢ່າງ: ວັກສະນະ streetscape, ການປຸງ ຕົວຢ່າງ: ການປັບປຸງສາຂາຂອງແວວທາງການເບິ່ງ
- Opportunity to think about the public realm:
 - E.g. streetscape character, planting
 - E.g. preservation of view corridors
- ໂອກາດທີ່ຈະລວມເຂົ້າມໍລະດົກທີ່ມີຊື່ຍິ່ງແວວຊຸມຊົນ intact ໂດຍຜ່ານການແບ່ງແຂດ
- Opportunity to integrate living heritage and intact communities through zoning

ການໂອກາດຮຽນຮູ້ການວາງແຜນລະອຽດ ຕົວຢ່າງ ການວາງໂຄງສ້າງສໍາລັບເຂດຂະຫຍາຍທີ່ຢູ່ອາໄສ, ບໍ່ປຸງຄວາມຮູ້ສຶກຕົວພັນຂອງປະຊາຊົນກັບສະຖານທີ່.

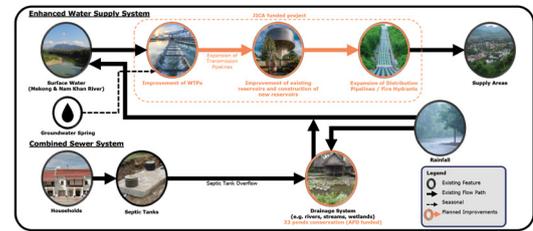


Opportunity to introduce detailed planning, e.g. layout of new residential districts, enhancing sense of place

ການໂອກາດຮຽນຮູ້ການວາງແຜນລະອຽດ ຕົວຢ່າງ ການວາງໂຄງສ້າງສໍາລັບເຂດຂະຫຍາຍທີ່ຢູ່ອາໄສ, ບໍ່ປຸງຄວາມຮູ້ສຶກຕົວພັນຂອງປະຊາຊົນກັບສະຖານທີ່.
Improving connectivity within the city and between city and new SEZs



ບໍ່ປຸງພື້ນຖານໂຄງລ່າງດ້ານນໍ້າ ແລະ ສຸຂາພິບານ
Enhancing Water and Sanitation Infrastructure



ບັນຫາຮັກສາຫຼວງພະບາງຈາກຜົນກະທົບຈາກການປ່ຽນແປງດິນຟ້າອາກາດ
Protecting Luang Prabang from impact of climate change



In the rainy season, the wetlands that make up most of Luang Prabang overflow and flood the entire area.

Sudden water releases or dam structure failure increasingly pose a challenge to accurate forecasting of river levels.

The climate is tropical and is influenced by the southeast monsoon that contributes to significant rainfall and humidity.

Climate change is expected to alter streamflow in the transboundary Mekong River Basin (MRB)

ລະບົບລະບາຍນໍ້າທີ່ບໍ່ດີ
Poor drainage system

ເຂື່ອນໄຟຟ້າ
Hydropower dams

ທີ່ຕັ້ງພູມສາດ
Geographical location

ການປ່ຽນແປງດິນຟ້າອາກາດ
Climate change

ນໍ້າຖ້ວມກະທັນຫັນ, ການເຊາະເຈືອນ, ດິນເຈືອນ
Flash Floods, Erosion, Landslides



Source: <https://whc.unesco.org/Report-on-Mission-to-Luang-Prabang>

ການແກ້ໄຂຄວາມຊັບຊ້ອນຂອງຂະແໜງທ່ອງທ່ຽວ ແຂວງຫຼວງພະບາງ
Overcoming the complexities of the tourism sector in Luang Prabang



ບັນຫາ Issues	ບັນຫາ Problems	ໂອກາດ ແລະ ຜົນກະທົບ Opportunities and Challenges
<ul style="list-style-type: none"> • Tourism is a complex sector integrating many supply chains and government departments • (transportation, accommodation, agriculture and food, services and human resources, urban development and public works, cultural heritage, and others) • Impact of COVID-19 on Luang Prabang has been devastating due to it being heavily reliant on tourism as key economic driver 	<ul style="list-style-type: none"> • Seasonal tourism, leading to crowding at certain times, and unstable employment and income • Fractured ticketing systems with no timed or geographical distribution • Influx of imported products, businesses, and services that do not reflect Luang Prabang • Lack of zoning, so risk of further employing of local populations and businesses • Arrivals exceeding carrying capacity, affecting authenticity and integrity of World Heritage Site 	<ul style="list-style-type: none"> • How can tourism be better managed post-COVID-19? • What active steps can be taken so tourism development respects the heritage identity of Luang Prabang, minimises environmental and cultural heritage impact, and contributes to local employment and well-being? • How may the high speed railway affect the types of tourists visiting Luang Prabang? • How could the economy of Luang Prabang be diversified to be less dependent on just tourism?

ບັນດາເສົາຫຼັກ ເມືອງຫຼວງພະບາງອັດສະລິຍະ
Smart City Pillars for Luang Prabang



ການຄຸ້ມຄອງຕົວເມັດ ແລະ ໂຄງລ່າງ
Smart Urban and Infrastructure Management: Facilitating sustainable urban management and development, e.g. land use, transport, water and sanitation, climate adaptation

ມໍລະດົກສະຫຼາດ
Smart Heritage: Ensuring holistic heritage protection in the World Heritage Site

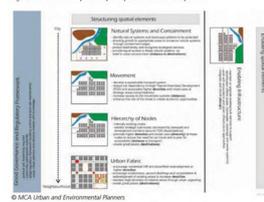
ການທ່ອງທ່ຽວອັດສະລິຍະ
Smart Tourism: Better managing tourism and visitors in post-COVID-19 Luang Prabang

ການປັບປຸງຄວາມອັດສະລິຍະ
Smart Governance: Developing smart enablers to support Luang Prabang's ambition to be a smart city

ການຄຸ້ມຄອງຕົວເມັດ ແລະ ໂຄງລ່າງພື້ນຖານອັດສະລິຍະ - ຮູບແບບຕົວເມັດອັດສະລິຍະ
Smart Urban and Infrastructure Management – Sustainable Urban Form



Figure 4.1: Urban compaction principles and action steps



ການປະຕິບັດທີ່ຖືກຕ້ອງ: ການນໍາໃຊ້ຄວາມໜາແໜ້ນ, ຮູບແບບຕົວເມັດອັດສະລິຍະ ຕາມກົດສະໄໝ, ແຫຼ່ງຢູ່ອາໄສຂອງປະຊາຊາດ

Best Practice: Leveraging Density, Urban Patterns for a Green Economy, UN Habitat
<https://urbanlab.org/2019/04/22/leveraging-density-urban-patterns-for-a-green-economy/>
<https://www.unhabitat.org/urban-patterns-for-a-green-economy>

- Sustainable urban form that prioritises liveability, movement and protection of natural areas through higher densities and compaction

Idea: Detailed planning using sustainable urban planning principles



ການຄຸ້ມຄອງຕົວເມືອງແລະພື້ນຖານໂຄງລ່າງອັດສະລິຍະ – ລະບົບການວາງແຜນຕົວເມືອງ Smart Urban and Infrastructure Management – Urban Planning Systems



ການປະຕິບັດທີ່ດີທີ່ສຸດ: URA Space, ສົງກາງພັດທະນາຕົວເມືອງ, ສິງກະໂປ
Best Practice: URA Space, Urban Redevelopment Authority, Singapore

- Captures planning decisions geospatially
- Information available publicly

Idea: Smart urban management tool



ການຄຸ້ມຄອງຕົວເມືອງແລະພື້ນຖານໂຄງລ່າງອັດສະລິຍະ – Shuttles ການເດີນທາງຂອງນັກທ່ອງທ່ຽວ Smart Urban and Infrastructure Management – Tourist Shuttles



ການປະຕິບັດທີ່ດີທີ່ສຸດ: Super Shuttle, ມິວລີແວນ
Best Practice: Super Shuttle, New Zealand

- Door-to-door transport service that can be shared or exclusively chartered
- Key part of New Zealand's travel and tourism infrastructure, interfacing with airports and airlines across the country.

Idea: Smart shuttle service for Luang Prabang visitors



ການຄຸ້ມຄອງຕົວເມືອງແລະໂຄງລ່າງທີ່ສະຫຼາດ - ການນຳໃຊ້ໂຄງລ່າງພື້ນຖານສີຂຽວ Smart Urban and Infrastructure Management – Using Green Infrastructure



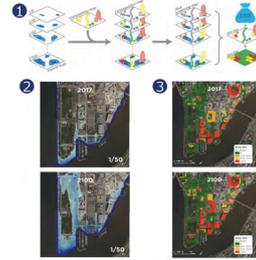
ການປະຕິບັດທີ່ດີທີ່ສຸດ: Lorong Halus Wetlands, ສິງກະໂປ
Best Practice: Lorong Halus Wetlands, Singapore

- Serves as a bio-remediation system for the Serangoon Reservoir to safeguard quality of water in the reservoir

Idea: Green infrastructure to treat wastewater



ການຄຸ້ມຄອງຕົວເມືອງແລະພື້ນຖານໂຄງລ່າງອັດສະລິຍະ – ເຄື່ອງມືການວາງແຜນປ້ອງກັນໄພນ້ຳຖ້ວມ Smart Urban and Infrastructure Management – Flood Protection Planning Tools



ການປະຕິບັດທີ່ດີທີ່ສຸດ: ການປະເມີນຄວາມສ່ຽງນ້ຳຖ້ວມ (FRA), ແລະການນຳໃຊ້ເຄື່ອງມືການວາງແຜນທາງພື້ນທີ່ເພື່ອຕ້ານໄພທຳມະດາ
Best Practice: Flood risk assessment (FRA), and use of spatial planning tools to combat natural hazards

- Flood hazard and risk areas were digitised on maps to guide urban development
- High flood risk areas were managed using a combination of structural solutions (e.g. dikes, nature-based solutions) and non-structural solutions (e.g. spatial planning, legislative and regulatory)

Idea: Smart planning tools to identify hazards and protection zones



ການຄຸ້ມຄອງຕົວເມືອງແລະພື້ນຖານໂຄງລ່າງອັດສະລິຍະ – ການແຕ່ງໂຂດແບບປະສົມແລະການແຕ່ງໂຂດແບບວິຖີທຳມະຊາດ Smart Urban and Infrastructure Management – Hybrid Solutions and Nature-based Solutions



Go Vap Park, Ho Chi Minh City

Bishan-Ang Mo Kio Park, Singapore

Idea: Nature-based solutions embedded with smart technologies



ການຄຸ້ມຄອງຕົວເມືອງແລະພື້ນຖານໂຄງລ່າງອັດສະລິຍະ – ນັ່ງໃຊ້ເຕັກນິກຊີວະວິສະວະກຳ Smart Urban and Infrastructure Management – Bioengineering Techniques



ການປະຕິບັດທີ່ດີທີ່ສຸດ: River Monngw, Wales – ທະນາຄານແລະການປົກປັກຮັກສາຕົ້ນ
Best Practice: River Monngw, Wales – Bank and toe protection

- The river bank was regraded to an appropriate slope for installing coir matting, rock rolls and stakes toe protection to protect the bank from erosion and the damages from high flow.

Idea: Bio-engineered river banks



ມໍລະດົກອັດສະລິຍະ - ມໍລະດົກວັດທະນະທຳທີ່ຖືເອົາປະຊາຊົນເປັນໃຈກາງ Smart Heritage – People-Focused Cultural Heritage



ການປະຕິບັດທີ່ດີທີ່ສຸດ: ແນວທາງພູມສັນຖານເມືອງປະຫວັດສາດຂອງສົງກາງ UNESCO
Best practice: UNESCO's Historic Urban Landscape approach

- Living (intangible) heritage – the people, beliefs, traditions, practices, and communities – is a vital part of Luang Prabang
 - Examples: morning almsgiving, silversmithing skills, Pi Mai procession, making *khaiphene*, farming on the riverbanks, offerings to village spirits, etc.
- More could be done to ensure the conservation and celebration of this intangible cultural heritage (ICH)
- It is also important to ensure that communities on the peninsula remain intact, to keep the temples and city "alive"

Idea: Geospatial database for built and ICH heritage inventory and safeguarding, added to PSMV



ມໍລະດົກອັດສະລິຍະ – ລະບົບດິຈິຕອລ Smart Heritage – Digital Systems



ການປະຕິບັດທີ່ດີທີ່ສຸດ: ການຂະນະລັກໃນສົງກະໂປ, ສົງກາງພັດທະນາຕົວເມືອງ, ສິງກະໂປ
Best Practice: Conservation in Singapore, Urban Redevelopment Authority, Singapore

- Predict guidelines for conserved areas
- Infill sites subject to urban design control, to protect identity of conservation area
- Conservation and planning data captured geospatially and available on URA Space

Idea: Digital precinct plans for Old Town



ການທ່ອງທ່ຽວອັດສະລິຍະ – ແອັບທ່ອງທ່ຽວ
Smart Tourism – Tourist App



ການປະຕິບັດທີ່ດີທີ່ສຸດ: Avila Tourism App, ສ່ວນໜຶ່ງຂອງໂຄງການ SHCity (ໂຄງການ EU), Interreg Sudoe
Best Practice: Avila Tourism App, part of SHCity project (EU Project), Interreg Sudoe

- Network of sensors to measure environmental and structural parameters in real time
- App provides tailored information about city's heritage, hours and cost of access to different monuments, routes recommendations

Idea: Luang Prabang World Heritage Site passport (next slide)



ແນວຄວາມຄິດ: ໜັງສືຜ່ານແດນມໍວະດົກໂລກຫຼວງ
Idea: Luang Prabang World Heritage Site Passport



- ປັບໜັງສືຜ່ານແດນເຂົ້າສະຖານທີ່ມໍວະດົກທີ່ສຳຄັນທັງໝົດ, ການຈ່າຍເງິນແລະການຈອງເວລາ
 - One ticket for entry to all key heritage site attractions, payment and booking of timeslots
- ສາມາດແບັນບັດຜ່ານທາງດິຈິຕອລ ຫຼື ດິຈິຕອລ/ທາງກາຍະພາບ
 - Can be a digital or digital/physical access pass
- ລວມມີພູມີ, ວັດຊາງທອງ, ຫໍພິພິທະມັນແຫ່ງຊາດ, ວັດວິຊຸນ ແລະ ອື່ນໆ.
 - Include Phousi Hill, Vat Xiengkong, National Museum, Vat Visoun, etc.
- ບັນຫາຕ່າງໆ
 - ລະດັບທຶນຈາກສູນກາງ, ເຊິ່ງຫຼັງຈາກນັ້ນໄດ້ຖືກຈັດສັນໃຫ້ແກ່ການອະນຸລັກມໍວະດົກ, ການຕິດອາວຸ, ແລະຄວາມຕ້ອງການການຄຸ້ມຄອງການທ່ອງທ່ຽວ
 - ລາຍຮູ້ການໄປຮຽນຍາມສູງສຳລັບທ່ອງທ່ຽວທີ່ສູງສຳຄັນອາດ - ນັກທ່ອງທ່ຽວຊື່ສຳຄັນຈາກຕ່າງປະເທດໄດ້ຮັບມູນຄ່າຫຼາຍກວ່າເປົ້າໝາຍການຈັດການຊຸມຊົນແບບມີວັດຖຸ (ເຊັ່ນ: ຫຼີກເວັ້ນການແຂ່ງຂັນດ້ວຍການຈອງເວລາ)
 - ເປີດໄດ້ການສຶກສາຢ່າງຈະແຈ້ງກ່ຽວກັບຜູ້ເຂົ້າຊົມສະຖານທີ່ມໍວະດົກໂລກ
- Why?
 - Centralise funds, which are then allocated to specific heritage conservation, interpretation, and tourism management needs
 - Encourage visitation to lesser known attractions – visitors feel they get more value
 - Enable real-time visitor management (e.g. avoid crowding through pre-booking)
 - Enable clear communication to all visitors to World Heritage Site

ການຄຸ້ມຄອງແບບອັດສະລິຍະ-ການສ້າງຄວາມສາມາດ
Smart Governance – Capacity Building



ການປະຕິບັດທີ່ດີທີ່ສຸດ: ການນຳປະກອບການຈ້າງງານທີ່ມີເຕັກນິກສູງ ແລະ ມອດນ E-Learning, Kayson, Lao P.D.R.
Best Practice: Enhanced Employment Service Platform with Matching Tool and E-Learning Modules, Kayson, Lao P.D.R.

- Development of gamification style e-learning modules targeting the enhancement of soft skills for job seekers, while keeping learners engaged and motivated
- The smart learning was conceptualized with stakeholder inputs to bridge the skills gap, as well as create a more formal urban employment landscape that can help attract foreign investments.

Idea: E-Learning platform on ICT capacity building and digital tools

ສະຫຼຸບ: 11 ແນວຄວາມຄິດເບື້ອງຕົ້ນ
Summary: 11 Initial Ideas



<p>ການວາງແຜນວະຽງໃນເຂດກັບຊັ້ນໂດຍນຳໃຊ້ຫຼັກການວາງແຜນຜ່ານຜັງເມັງແບບຍືນຍົງ Detailed planning using sustainable urban planning principles</p>	<p>ໂຄງສ້າງພື້ນຖານສີຂຽວເພື່ອບັດນ້ຳເສຍ Green infrastructure to treat wastewater</p>
<p>ເຄື່ອງມືຄຸ້ມຄອງຕົວເມັງອັດສະລິຍະ Smart urban management tool</p>	<p>ເຄື່ອງມືການວາງແຜນອັດສະລິຍະເພື່ອກຳນົດອິດທິພົນແລະວາງແຜນປ້ານກຳອັກສາ Smart planning tools to identify hazards and protection</p>
<p>ເຄື່ອງມືຄຸ້ມຄອງຕົວເມັງອັດສະລິຍະ Smart shuttle service for Luang Prabang visitors</p>	<p>ວິທີແກ້ໄຂແບບທຳມະຊາດທີ່ຜ່າຢູ່ດ້ວຍເຕັກໂນໂລຊີອັດສະລິຍະ Nature-based solutions embedded with smart technologies</p>

ສະຫຼຸບ: 11 ແນວຄວາມຄິດເບື້ອງຕົ້ນ
Summary: 11 Initial Ideas



<p>ຕາມຜັງແຄມນ້ຳແບບຊີວະວິສະວະກຳ Bio-engineered riverbanks</p>	<p>ໜັງສືຜ່ານແດນມໍວະດົກໂລກຫຼວງລາບຽງ Luang Prabang World Heritage Site passport</p>
<p>ຕາມຜັງແຄມນ້ຳແບບຊີວະວິສະວະກຳ Geospatial database for built and ICH heritage inventory and safeguarding</p>	<p>ເວທີການສຶກສາທາງອິ-ລັກໂທນິກກ່ຽວກັບການສ້າງຄວາມສາມາດດ້ານ ICT ແລະເຄື່ອງມືດິຈິຕອນ E-Learning platform on ICT capacity building and digital tools</p>
<p>ຕາມຜັງແຄມນ້ຳແບບຊີວະວິສະວະກຳ Digital precinct plans for Old Town</p>	

ຄວາມຮູ້ດ້ານວິຊາການ, ວັດທະນະທຳແລະ ໂຄງສ້າງການປຶກສາ (ທຸກມາຜົນ) ແມ່ນສຳຄັນເພື່ອເຮັດໃຫ້ເມັງອັດສະລິຍະທຶນສຳເລັດ



ສະຫຼຸບຄວາມຄິດ ແລະການສ້າງຄວາມສາມາດ
Concluding Thoughts and Survey

ໃນປັດຈຸບັນນີ້ແມ່ນເວລາທີ່ຈະຄິດຄືນໃໝ່
NOW IS THE TIME TO RETHINK

ການປະຕິບັດທີ່ດີທີ່ສຸດກ່ຽວກັບການປະຕິບັດຕໍ່ມາ

- ການປະຕິບັດທີ່ດີທີ່ສຸດແມ່ນ ການໝອບສິນຫຼັງ (retrospective ແລະ ຫຼາຍກວ່າສຳຄັນ)
- ບັນດາເມັງອັດສະລິຍະໃນເວລາ 100 ປີສ້າງຕັ້ງ ແລະ ຕ້ອງຕ້ານທານຄວາມກັດດັນ ແລະ ຄວາມກັດດັນຫຼາຍຢ່າງ
- ການປະຕິບັດທີ່ດີທີ່ສຸດໃນທີ່ສຸດແມ່ນໃນສະຖານທີ່ທີ່ກວມເອົາທັງ ຕົວເມັງ ແລະ ການປະຕິບັດທີ່ດີທີ່ສຸດກ່ຽວກັບຄວາມສາມາດ
- ການປະຕິບັດທີ່ດີທີ່ສຸດແມ່ນບັນລຸນຳການສ້າງຄວາມສາມາດ

Best practice to next practice

- Best practice is retrospective and more of the same
- Cities last for the next 100s of years and must resist many shocks and stresses
- Best practices had not considered economic crisis, COVID-19, climate changes etc.
- Best practice is system-centric
- Next practice must be human-centric and resilient

ການແກ້ໄຂຄວາມສາມາດບັນລຸນຳ: ການແກ້ໄຂບັນຫາຊີວິດບັນລຸນຳ

- ອື່ນໆ ແລະ ບໍ່ໄດ້
- ສະຖາຍ
- ປັບແປງໄດ້
- ວັດທະນະທຳ
- ແລະ

Human centric solutions are Sustainable and livable

- Smart
- Resilient
- Flexible
- Cultural
- And

ການແກ້ໄຂຄວາມສາມາດບັນລຸນຳ: ການແກ້ໄຂບັນຫາຊີວິດບັນລຸນຳ
Human centric solutions -> Life centric solutions

ຂອບໃຈ
Thank you



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Twitter: @AASCTF
YouTube: bit.ly/watchAASCTF

ຄຳຖາມສຳຫຼວດ (30 ນາທີ)
Survey questions (30 minutes)



Q1. ວິໄສທັດຂອງທ່ານສຳລັບນະຄອນຫຼວງພະບາງໃນ 15 ປີແມ່ນຫຍັງ?
Q1. What is your vision for Luang Prabang in 15 years?

Q2. ທີ່ມາງານທີ່ປຶກສາໄດ້ຄົ້ນຫາບັນຫາຕົວເມືອງຕົວຈິງຂອງນະຄອນຫຼວງພະບາງ ທີ່ເຫມາະສົມກັບຄວາມເປັນຈິງຫລືບໍ່? ແລະຍັງມີບັນຫາໃດຍັງຂາດຕົກບໍ່ກວດສອບ?
Q2. Has the consultant team identified the right urban issues to investigate for Luang Prabang? Which issue has been missed?

Q3. ສາມ ແນວຄວາມຄິດອັນໃດແດ່ທີ່ຄວນເປັນບູລິມະສິດສຳລັບນະຄອນຫຼວງພະບາງ ຍ້ອນຫຍັງ?
Q3. Which 3 ideas should be prioritised for Luang Prabang? Why?

Q4. ກະລຸນາແບ່ງບັນຄວາມຄິດຫຼືສະເໜີແນະນຳສຳລັບທີ່ມາງານທີ່ປຶກສາພວກເຮົາ.
Q4. Please share any other thoughts or suggestions for the consultant team.

ກິດຈະກຳມີສ່ວນຮ່ວມ
Interactive activity



ກະລຸນາຕິດສະຕິກເກີ 3 ອັນຂອງເຈົ້າໃສ່ເທິງກະດານ 3 ແນວຄວາມຄິດເມືອງ ອັດສະລິ ຍະ ອັນດັບຕົ້ນໆທີ່ຄວນຈັດລຳດັບຄວາມສຳຄັນ.

Paste your 3 stickers on the top 3 smart city ideas that should be prioritised.

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The ASEAN Australia Smart Cities Trust Fund (AASCTF) assists ASEAN cities in enhancing their planning systems, service delivery, and financial management by developing and testing appropriate digital urban solutions and systems. By working with cities, AASCTF facilitates their transformation to become more livable, resilient, and inclusive, while in the process identifying scalable best and next practices to be replicated across cities in Asia and the Pacific.



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