

INCEPTION REPORT

Assessing of Health Facility and Lifeline Infrastructure
for Health Emergency Preparedness in Lao PDR

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Acronyms

API	Application Programming Interface
DCDC	Department of Communicable Disease Control
DHHP	Department of Health and Hygiene Promotion
DHO	District Health Office
DHR	Department of Healthcare and Rehabilitation
DPF	Department of Planning and Finance
FDD	Food & Drug Department
HSI	Hospital Safety Index
MOH	Ministry of Health
PHO	Provincial Health Office
SOP	Standard Operating Procedure
ToT	Training of Trainers
UNICEF	United Nations International Children's Emergency Fund.
WASH	Water, Sanitation and Hygiene
WHO	World Health Organization
WB	World Bank

Scope

The Lao PDR COVID-19 Response Project has received financial support through the World Bank's HEPR-Trust Fund aimed at responding to the COVID-19 pandemic and enhancing the preparedness and resilience of healthcare facilities, workers, water, sanitation, and waste management. As part of the HEPR-Trust Fund technical assistance project entitled "Strengthening Health Facility and Lifeline Infrastructure for Health Emergency Preparedness in Lao PDR," UN-Habitat will carry out the following three activities:

1. National Assessment of Multi-Hazard Risk to Health Facilities and Basic Service Provision Under Climate Change
2. Development and Pilot-Testing of Hospital Safety Index
3. Development of Standard Operating Procedure (SOP) and distribution/action plan for the provision of water supply and sanitation in case of health emergency

Activity 1: National Assessment of Multi-Hazard Risk to Health Facilities and Basic Service Provision Under Climate Change

- **Institutional and Regulatory Assessment:** Working closely with the executing agencies and relevant government departments, conduct a review of institutional and legislative frameworks, standards, regulations, guidelines affecting the operation (and secondarily the planning, design, construction, and retrofitting) of hospitals and their access to critical supply and disposal infrastructure services (i.e., transport, water, electricity, sanitation, and solid waste), identifying major gaps and areas of priority action in order to strengthen the climate and disaster resilience of hospitals in Lao PDR.
- **Exposure Analysis of Critical Services and Health Facilities:** Analyze existing geospatial data of ca. 1250 key public health facilities in Lao PDR (i.e., central hospital, provincial hospital, community hospital, and health center) and basic service provision from the Ministry of Health's (MOH) Health Facility dataset, examining their completeness and relevance to this assignment and identifying gaps, if any, that should be filled with additional data collection. Moreover, design a procedure for vulnerability data collection including the development of an appropriate set of questionnaires on hazard-caused service disruptions. The exposure analysis will further help to prioritize factors that may compromise the planning, design, construction, repair, retrofitting, and operation of hospitals and their link to critical services under natural disaster risk in the detailed piloting in targeted health centers in Activity 2.

- **Natural Hazard and Risk Assessment:** Conduct multi-hazard assessments for health facilities and related critical service provision under the current and future climates - building upon UN-Habitat's experience from previous vulnerability assessments at the provincial level (Lao PDR National Climate Change Vulnerability Assessment, 2021¹). Develop and apply appropriate method(s)/metrics to evaluate risks to public health facilities and Critical Services, quantifying their interdependencies and cascading consequences of health services disruption.
- **Data Management:** Consolidate all newly obtained information on multi-hazard exposure and vulnerability of Critical Services of public health facilities into one centralized, geospatial asset management database system. This system shall ideally build upon and consolidate the existing systems within Lao PDR (i.e., national vulnerability assessment and the Ministry's Health Facility dataset), so that an updated version can be returned to the MOH with a seamless handover for further use.
- Develop **technical reports** in Lao, with translation in English and submit to MOH and the World Bank.

Activity 2: Development and Pilot-Testing of Hospital Safety Index

- **Lao PDR Hospital Safety Index update:** Working closely with the executing agencies and relevant government departments, survey and examine the existing hospital safety assessment practice of Lao PDR including policy and regulatory requirements, institutional mandates and technical capacities for health facilities and Critical Services continuity in emergency situations. Suggest the scope of hospital safety assessment appropriate to Lao PDR using the WHO's hospital safety index including the types of stakeholders to be involved, data collection procedures and analytical methods. Develop survey instruments, data management strategy, and site inspection procedures, and address gaps and specific needs through adaptation and localization of the Index accordingly.
- **Pilot Testing:** In the target hospitals, identify and work with major stakeholders and pilot-test the localized hospital safety assessment, further adapting the WHO's hospital safety index if needed. Data collection should involve interviews with major stakeholders to understand the current practice of hospital safety management practices at the target hospitals. In addition, implement appropriate analyses such as rapid visual inspection of building integrity, critical facilities and equipment and review of emergency management and business continuity planning.

¹https://fukuoka.unhabitat.org/wp-content/uploads/2021/12/3_Lao_PDR_National_Climate_Change_Vulnerability_Assessment.pdf

- **National roadmap and capacity building:** Provide technical assistance to develop a national road map for scale-up of the Lao PDR hospital safety assessment. The national roadmap should clarify the strategy to scale-up and integrate the Lao PDR national hospital safety index from the target hospitals to the context of existing health and disaster risk management sector policies, identifying timelines, priority actions and actors to lead the assessment of hospital safety. In addition, work with relevant national agencies and development partners to identify opportunities for improved alignment of the Lao PDR hospital safety assessment with the other ongoing health sector assessment initiatives currently being developed by WHO. Develop training materials and conduct capacity building workshop(s) on the use of the Lao PDR Hospital Safety Index for health workers at the provincial health offices, provincial hospitals, and district hospitals.
- Develop **technical reports** in Lao, with translation in English and submit to MOH and the World Bank.

Activity 3: Development of Standard Operating Procedure (SOP) and action plan for water supply and sanitation sources in case of health emergency

- **Development of SOP/Guideline for preparedness and responses for health and hygiene emergency,** including an estimate of water supply and sanitation resources needed in case of a health emergency. Identified gaps and needs, with recommendations, from the assessment and consultation processes shall be used as inputs for development of SOP/Guideline for WASH during preparedness and emergency responses. SOP/Guideline should describe the step-by-step process that must be taken to perform routine activities for a person to survive and to keep hospital functions operating under preparedness and emergency conditions.
- **Development of distribution plan for emergency provision of water supply and sanitation:** The work plan should include a distribution plan of water supply ensuring the water quality and availability for drinking, cleaning, and decontamination materials for health emergency conditions in at-risk provinces. It should also include a sanitation facilities assessment and temporary sanitation facilities provision in case of damage as well as hygiene kit distribution in case of major disaster restricting the access to facilities.

	Deliverables	Description
Activity 1	National Multi-Hazard Risk Assessment Report	<ul style="list-style-type: none"> ▪ National multi-hazard risk assessment report. ▪ Exposure mapping of hospitals and access to basic services related to critical infrastructure
	Data on basic service provision disruptions of health facilities	<ul style="list-style-type: none"> ▪ Existing MOH excel extended with data on service disruption due to natural hazards for each health facility
Activity 2	Lao PDR Hospital Safety Index (HSI)	<ul style="list-style-type: none"> ▪ HSI framework consisting of 4 modules: <ol style="list-style-type: none"> 1. Structural safety 2. Nonstructural safety 3. Emergency and disaster management 4. Water, sanitation, hygiene (WASH) ▪ HSI Calculation excel
	Pilot-testing Report	<ul style="list-style-type: none"> ▪ HSI scores of health facilities: <ol style="list-style-type: none"> 1. Sekong Provincial hospital 2. Attapeu Provincial hospital 3. Champasak Provincial hospital 4. Phonthong district hospital ▪ Recommendations for hospital safety improvement for the aforementioned
	National Roadmap	<ul style="list-style-type: none"> ▪ Summary of needed next steps for HSI capacity building and national implementation across health facilities ▪ Training modules for key target groups to train HSI trainers
Activity 3	Standard Operating Procedure (SOP)	<p>The SOP will include:</p> <ul style="list-style-type: none"> • Introduction: • Roles and Responsibilities • Emergency Preparedness • Water Management • Sanitation and Waste Management • Hygiene Promotion • Communication and Coordination • Monitoring and Evaluation

		<ul style="list-style-type: none"> • Training and Capacity Building • Documentation and Reporting:
	<p>Distribution plan for Emergency Provision of WASH to Health Facilities</p>	<ul style="list-style-type: none"> • Needs Assessment • Prioritization • Coordination and Partnerships • Procurement and Stock Management • Logistics and Transportation • Distribution Mechanisms • Training and Capacity Building • Monitoring and Evaluation • Communication and Information Sharing • Documentation and Reporting

Methodology

Activity 1: National Assessment of Multi-Hazard Risk to Health Facilities and Basic Service Provision Under Climate Change

The assessment aims at undertaking the following tasks:

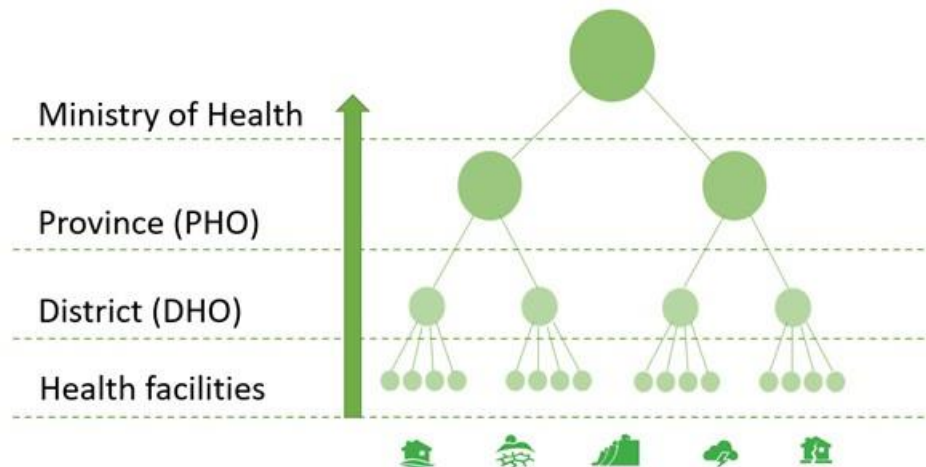
a) Institutional and regulatory assessment

This analysis will consist of a desk review of relevant institutional and legislative frameworks, standards, regulations, and guidelines. These will be sourced from a number of sectors including health, public works and transport, energy, natural resources and environment, and labor and social welfare. In addition to the desk review, interviews will be conducted with key officials in the relevant ministries. The resulting data will be analyzed and triangulated to identify gaps and areas of priority action.

b) Exposure and vulnerability analysis of health facilities and critical services

To provide a comprehensive risk profile of each facility and related infrastructure services, existing exposure data will be obtained from the MOH and new vulnerability data from questionnaires that UN-Habitat will design. The questionnaire will be tailored in a way to complement the existing data on health facilities and related basic services provision across the country, filling any gaps that exist. Simultaneously, it will facilitate collection of multi-hazard exposure data of health facilities and critical services, quantifying the risks, interdependencies, and cascading consequences of health service disruption.

Regarding the newly obtained data, UN-Habitat intends to adopt a highly effective data collection methodology that has demonstrated impressive results in the past. The success of this methodology is reliant on coordination between the MOH and the provincial and district health offices, with technical assistance from UN-Habitat. The monitoring of progress and accountability at each level will be ensured by assigning specific roles and responsibilities during various stages of the procedure. The methodology will collect data at the district level and aggregate the information subsequently as it goes to the national level (see figure 1).



The proposed methodology enables local data collection by the national level without the need of travel to the sites thereby reducing costs, saving time, and allowing a great amount of data to be collected from every district in a very limited time.

Data collection tools

The data collection process will make use of paper-based questionnaires at the district level. Data from the questionnaires will be transformed to a digital format at the provincial level.

1. Paper-based questionnaires at the district level

UN-Habitat has developed a draft questionnaire aimed at assessing the impact of climate change hazards on critical service provision of healthcare facilities. It examines the direct or indirect exposure of these facilities to climate change hazards, while also exploring the frequency, severity, and regularity of such events, and their potential to disrupt essential services. The goal is to quantify the interdependencies and cascading consequences of health service disruptions resulting from these hazards.

To ensure ease of use and efficiency, the questionnaire has been designed in a user-friendly and concise manner, allowing respondents to complete it quickly. However, it is essential to validate the questionnaire with relevant government departments such as the Department of Planning and Finance (DPF), Department of Healthcare and Rehabilitation (DHR), Department of Communicable Disease Control (DCDC), Food & Drug Department (FDD), Cabinet, Department of Health and Hygiene Promotion (DHHP), and Disaster Risk Management (World Bank).

At the district level, the paper-based questionnaires will be administered by staff from the district health offices (DHO) to collect vulnerability data from health facilities and related critical services across each district. The questionnaire focuses on two main areas of investigation. The first area involves identifying the occurrence, frequency trends in recent years, and severity of different types of hazards (such as floods, droughts, storms,

landslides, wildfires, and heatwaves) to determine the level of hazard risk faced by each health center. The second area examines how each hazard affects or disrupts the provision of essential services linked to critical services.

This comprehensive approach enables a thorough understanding of the risks associated with hazard-induced service disruptions and the potential consequences for each healthcare facility. UN-Habitat will design the questionnaire in a straightforward manner to streamline the data collection process. Based on previous experience, targeted questions and the collection of specific information have proven effective in obtaining valuable data with a minimal number of questions. This approach not only saves time for both the enumerators responsible for data collection and the respondents but also enhances the quality of the collected data.

2. Digital data collection at the provincial level

The provincial level digital data collection process will be conducted through a primary data collection platform called Kobo Toolbox. This open-source data collection tool, created by the Harvard Humanitarian Initiative, has a proven track record of efficiently collecting data. The platform enables the aggregation of all district-level data into a centralized database, ensuring organized and easily accessible information. Kobo Toolbox also offers data validation and quality control checks to guarantee the accuracy of the collected data.

Overall, this approach will provide a comprehensive understanding of the risks faced by each health facility, whilst improving the quality and efficiency of data collection and data management.

Roles at the district level (DHO)

The staff from the District Health Offices (DHO) will be responsible for gathering information from the health facilities in their respective district by completing the paper-based questionnaires. Although we recognize associated challenges at this level among which are limited access to information and telecommunication infrastructure in certain parts of the country, we can leverage the DHO staff knowledge of the territory and the fact that there is a manageable number of health facilities to be assessed. Initial estimations reveal an average of 8 health facilities per district.

For the facilitation of district-level officials to gather valuable information in a timely and efficient manner, our questionnaires are designed with simple language and conciseness in mind. Besides this, recommended communication channels (i.e., mail, phone, site visit) will be determined for each facility based on discussions between national and provincial focal points beforehand. To further support the DHO staff, detailed information on role and communication channels will be shared during two training sessions on data collection planning.

Role at the provincial level

The Provincial Health Offices (PHO) will play a critical role in the data collection process. Specifically, they will oversee the overall coordination of distributing and collecting paper-based questionnaires to and from DHO focal points. Additionally, the PHO will be responsible for entering the completed questionnaire data from each facility in their province into the centralized database using the Kobo Toolbox platform.

Table 1. Province enumerator distribution

Training North (Louangphabang)	Participants	Training Central (Vientiane)	Participants	Training South (Pakse)	Participants
Louangphabang	2	Bokeo	2	Savannakhet	2
Chomphet	1	Bokeo	1	Atsaphangthong	1
Louangphabang	1	Khamkeut	1	Atsaphon	1
Numbak	1	Pakkading	1	Champhon	1
Nou	1	Paksan	1	Kaysone Phomvihane	1
Ngoy	1	Thaphabot	1	Nong	1
Pak-ou	1	Viangthong	1	Outhoumphon	1
Pakxeng	1	Xaichomphon	1	Phalaxai	1
Phonthong	1	Vientiane Capital	2	Phin	1
Phonxai	1	Chanthabouli	1	Songkhon	1
Phoukhoum	1	Hatsayfong	1	Thapangthong	1
Viangkham	1	Naxaythong	1	Vilabouli	1
Xiangngoun	1	Pakxum	1	Xaibouli	1
Phongsali	2	Saengkhong	1	Xaiphouthong	1
Bounnua	1	Sikhottabong	1	Xepon	1
Ecantai	1	Sisattanak	1	Xonbouli	1
Khousa	1	Xaisettha	1	Champasak	2
Mai	1	Xaithani	1	Bachiangchaleunzouk	1
Nyot-ou	1	Khammoua	2	Champasak	1
Phongxali	1	Boualapha	1	Khong	1
Samphan	1	Himboon	1	Mountspamok	1
Hoaphan	2	Khounkham	1	Pakxe	1
Et	1	Makxai	1	Pakxong	1
Hiam	1	Nakay	1	Pathoumphon	1
Houameng	1	Nongbok	1	Phonthong	1
Kouan	1	Nyommalat	1	Soukhouma	1
Sopbao	1	Thakhek	1	Xanazomboun	1
Viangxai	1	Xaibouathong	1	Xekong	2
Xamnuas	1	Xebouai	1	Dakchung	1
Xamta	1	Xaisomboua	2	Kalam	1
Xiangkhouk	1	Anouvong	1	Lamam	1
Xon	1	Hom	1	Thoteng	1
Xaisyabouli	2	Longcheng	1	Attape	2
Boten	1	Longxan	1	Phouvong	1
Houa	1	Thathom	1	Samakxai	1
Kanthao	1	Vientiane	2	Samxai	1
Khop	1	Paou	1	Saxai	1
Ngoun	1	Hinabup	1	Xaisettha	1
Pakxay	1	Hinabup	1	Salavan	2
Phasay	1	Kazi	1	Khongxedon	1
Thongmixai	1	Kao-oudom	1	Lakphonpheng	1
Xainyabouli	1	Met	1	Lao-ngoun	1
Xaisathan	1	Min	1	Salavan	1
Xiangphon	1	Phonhong	1	Samouay	1
Bokeo	2	Thoulakhom	1	Tar-oy	1
Houayxay	1	Vangviang	1	Toumlan	1
Meung	1	Viangkham	1	Vapi	1
Paktha	1	Xanxham	1	Total Provincial focal Points	8
Phou-oudom	1	Xiangkhouang	2	Total District focal Points	42
Toungkeung	1	Kham	1	Total Participants	50
Louangnamtha	2	Khoum	1		
Long	1	Mak	1		
Nalich	1	Nonghet	1		
Namtha	1	Pek	1		
Sing	1	Phaxai	1		
Viangphoukha	1	Phoutout	1		
Oudomxai	2	Total Provincial focal Points	12		
Bong	1	Total District focal Points	49		
Houh	1	Total Participants	61		
Lo	1				
Namoh	1				
Nga	1				
Pakbeng	1				
Xai	1				
Total Provincial focal Points	14				
Total District focal Points	57				
Total Participants	71				

Role at the national level

The national level, with technical assistance from UN-Habitat, has the primary responsibility of coordinating, facilitating, and supervising the provincial level data collection process. The MOH at this level will, therefore, assign a team to monitor the provincial teams. Each team member will be responsible for overseeing the progress of specific provinces and maintaining close communication with the provincial focal points team.

To monitor the data collection process, a PowerBI dashboard will be linked to the central Kobo Toolbox database. This dashboard offers a real-time visual representation of the progress, enabling the MOH at the central level to track the advancement, verifying which provinces and

districts are meeting their assigned tasks or experiencing delays within a specified timeframe. This approach will help ensure that any potential delays or issues in data submission are identified and addressed promptly in a timely manner.

To ensure effective communication between national staff and provincial focal points, as well as to provide assistance at the national level throughout the entire process, UN-Habitat will actively participate in the training sessions. The monitoring and evaluation strategy, supported by UN-Habitat, will enable efficient and effective monitoring of the data collection process, thereby providing valuable insights to the project team and ensuring the project remains on track.

c) Data management

Data collection

In order to ensure comprehensive and accurate data collection for this project, a mixed-method approach will be employed, encompassing various techniques and tools to gather the necessary information. Building upon the previous subchapter's discussion, this section will delve deeper into the specific methodologies and technologies utilized in the data collection process.

The primary method utilized in the data collection process involves conducting paper-based surveys. This approach enables the collection of detailed information directly from health facilities. DHO officials will visit, contact the designated sites or apply their knowledge of the health facilities within their districts to capture key data on climate change exposure and the linkages between climate change and the provision of basic services to the health centers. By utilizing paper-based surveys, the project ensures a systematic and structured approach to data collection, allowing for consistency and comparability across different health facilities and catchment areas. This method provides an opportunity to gather firsthand information from health facilities, ensuring that the data collected reflects the unique challenges and circumstances faced in each site.

Once the surveys are completed, the collected data will undergo a digital transformation process. This involves the conversion of paper-based responses into electronic format for ease of management, analysis, and storage. To facilitate this process, the project will employ Kobo Toolbox as the designated data management platform. Kobo Toolbox is an open-source data collection and management tool that provides a user-friendly interface for survey design, data collection, and data analysis. It allows for the creation of customized digital forms based on the paper-based questionnaires, which can be easily deployed to surveyors' mobile devices for data entry.

The digitization process involves carefully inputting the responses from the paper-based surveys into the Kobo Toolbox platform. This may be performed by trained data entry personnel. The platform offers features such as data validation checks, skip logic, and real-time data synchronization, ensuring the accuracy and integrity of the digitized data.

Once the data is successfully entered into the Kobo Toolbox platform, it is automatically consolidated in a centralized database. This centralized database serves as a repository for all the collected data, allowing for efficient data management and analysis. The project team can access the database in real-time, ensuring timely availability of the latest data for monitoring and decision-making purposes.

Furthermore, the use of Kobo Toolbox enables enhanced data quality control measures. The platform supports built-in checks and validations to minimize errors and inconsistencies during data entry. It also allows for real-time monitoring of the data collection progress, enabling the project team to identify and address any issues or discrepancies in a timely manner. These quality control measures ensure the reliability and accuracy of the collected data, enhancing the overall validity of the project's findings and conclusions.

Data analysis

The resulting dataset will undergo comprehensive analysis using the SPSS statistical software platform, following internationally recognized standards. The primary objective of this analysis is to determine the level of exposure that different hazards pose to health facilities and their subsequent impact on the accessibility of basic services. To achieve a comprehensive understanding of the actual threats faced by health facilities, a hazard risk assessment will be incorporated into the analysis. This assessment will shed light on the potential limitations in health service provision resulting from these hazards.

Moving forward, an integration process will be carried out, merging the obtained dataset with critical infrastructure service data. The aim here is to identify the health facilities that are most vulnerable to cascading consequences, which can lead to significant disruptions in health service delivery during emergencies. By considering the interconnectedness between health facilities and critical infrastructure services, this analysis will allow for the identification of high-risk facilities requiring special attention.

Incorporating a spatial component into the analysis, the ArcGIS Pro software will be utilized. This spatial analysis will enable the identification of potential geographical trends related to the vulnerability of health facilities. By precisely locating the most vulnerable health facilities, the analysis will provide valuable insights into their specific geographic contexts.

Data verification and monitoring

Data monitoring will play a crucial role in overseeing the progress of the data collection process. To ensure effective monitoring, specific application programming interfaces (APIs) will be utilized, establishing a seamless connection between the central database and Power BI. This integration will enable the creation of a dynamic and real-time dashboard, providing an accurate reflection of the current status of data collection. Through this dashboard, stakeholders and project teams will have immediate access to key metrics and indicators, facilitating timely decision-making and ensuring the completion of data collection within the desired timeframe.

Furthermore, all resulting products and outputs from the data collection process will adhere to national and international standards. This adherence will ensure the compatibility and interoperability of the collected data with existing systems within Lao PDR. By following these standards, the integration of the collected data into the country's health infrastructure will be seamless, enabling efficient data sharing, analysis, and utilization by relevant stakeholders and institutions.

The combination of a multi-hazard risk assessment approach and comprehensive data management practices will establish a robust framework for understanding and addressing vulnerabilities in the health sector. By systematically assessing risks associated with multiple hazards, such as natural disasters, disease outbreaks, and other emergencies, this approach will provide a holistic perspective on the vulnerabilities faced by health facilities and the broader health system. This comprehensive understanding will guide the development of targeted interventions and strategies to strengthen the resilience and response capacity of the health sector in Lao PDR.

In summary, the implementation of robust data monitoring mechanisms, adherence to national and international standards, and the integration of multi-hazard risk assessment will ensure the reliability and quality of the collected data. This, in turn, will enable informed decision-making, effective planning, and the implementation of appropriate measures to mitigate vulnerabilities and enhance the overall preparedness and response capabilities of the health sector in Lao PDR.

d) Deliverables

National Multi-Hazard Risk Assessment Report:

This report will encompass essential components of the project, including:

- a. Results obtained from the comprehensive desk review and interviews conducted as part of the institutional and regulatory assessment.
- b. Exposure mapping of hospitals and an in-depth analysis of the provision of basic services. This analysis will shed light on the availability and accessibility of critical health services.

The National Multi-Hazard Risk Assessment Report will serve as a key resource, providing valuable insights and analysis to inform decision-making and future planning efforts. The inclusion of results from the institutional and regulatory assessment, exposure mapping, and multi-hazard risk profiles will enable stakeholders to better understand vulnerabilities and develop targeted strategies to enhance resilience and response capabilities.

The delivery of these reports in both the Lao and English languages will facilitate effective communication and knowledge sharing among stakeholders, ensuring that the findings are accessible and usable within the context of Lao PDR.

Activity 2: Development and Pilot-Testing of Hospital Safety Index

UN-Habitat will develop an adapted version of the Hospital Safety Index tailored to the context of Lao PDR. The original Hospital Safety Index, developed by the World Health Organization (WHO), assesses the safety and resilience of healthcare facilities across a range of topics, including infrastructure, operational capacity, and emergency preparedness. However, this index may not be fully inclusive of the unique needs and challenges faced by healthcare facilities in Lao PDR.

UN-Habitat has recognized a deficiency in healthcare facility safety regarding the provision of water, sanitation, and hygiene (WASH). To address this gap, a WASH module will be incorporated in the updated version of the Hospital Safety Index in the form of the comprehensive WASH FIT tool, short for Water and Sanitation for Health Facility Improvement Tool. This is an internationally utilized tool developed by WHO and UNICEF that assesses the quality and availability of WASH services for quality improvement of healthcare facilities and has already been introduced to MOH's Department of Hygiene and Health Promotion by UNDP supporting them with training provision and the development of a translated WASH FIT textbook in the Lao language.

The inclusion of the WASH FIT approach in the Hospital Safety Index has several synergetic benefits for assessing and improving the safety and resilience of healthcare facilities. While the Hospital Safety Index provides a broader assessment of the overall safety and resilience of healthcare facilities covering a range of topics among which are infrastructure, operational capacity, and emergency preparedness, the WASH FIT module will provide a detailed assessment of the WASH services offered in healthcare facilities, including the availability of clean water, hand hygiene facilities, and adequate waste management.

By integrating data gathered from the Hospital Safety Index and the WASH FIT module, specific areas necessitating improvement can be pinpointed. This allows for the creation of holistic strategies to tackle these identified issues. Consequently, healthcare facilities in Lao PDR will be more prepared for emergencies, capable of providing crucial services to their communities. This will culminate in the enhancement of the overarching healthcare system in the country.

a) Lao PDR Hospital Safety Index

UN-Habitat will conduct a study on current hospital safety assessment practices. This will be done through:

1. A desk review of existing policies and regulations at both national and subnational levels.
2. Merging the Hospital Safety Index and WASH FIT tools.

UN-Habitat recognizes the critical role that healthcare facilities play in ensuring the well-being of communities, especially in times of emergencies. In order to strengthen the safety and resilience

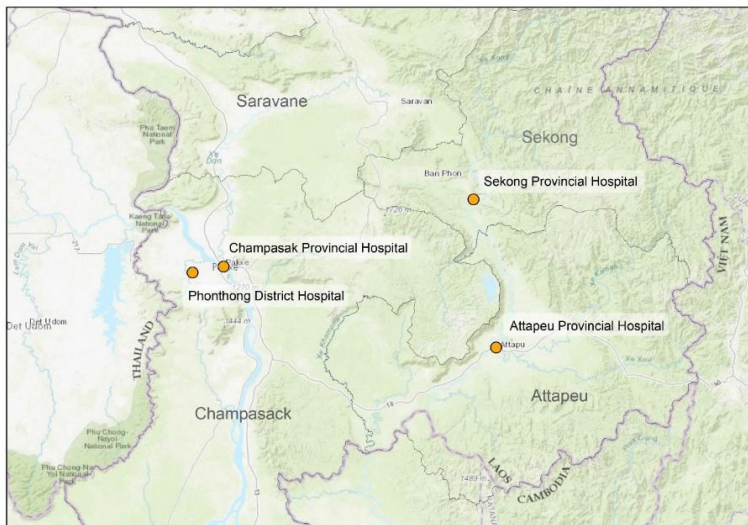
of healthcare facilities in Lao PDR, UN-Habitat will be revising and adapting the Hospital Safety Index developed by the World Health Organization (WHO).

The WHO Hospital Safety Index will firstly be tailored to the unique context of Lao PDR, while preserving its core structure. This will ensure the tool's effectiveness in assessing the safety and resilience of healthcare facilities in the country. By providing a thorough assessment of structural, non-structural, and functional aspects of health facilities, the adapted Index will help the Ministry of Health (MOH) in Lao PDR to identify vulnerabilities and priority actions for risk reduction and emergency preparedness. In addition, UN-Habitat will incorporate a WASH module into the Index, based on the comprehensive WASH FIT approach. This module will assess the quality and availability of water, sanitation, and hygiene services in healthcare facilities, which are critical for ensuring the safety and well-being of patients and healthcare workers.

Both the revision and adaptation of the Hospital Safety Index will be carried out in close collaboration with the MOH in Lao PDR and other stakeholders. This collaborative approach will ensure that the Index takes into account the specific needs and challenges faced by healthcare facilities in the country. The resulting updated Hospital Safety Index will provide a comprehensive and systematic approach to assess the safety and resilience of healthcare facilities in Lao PDR. By identifying vulnerabilities and priority actions for risk reduction and emergency preparedness, the Index will support the Ministry of Health in Lao PDR in improving the safety and resilience of healthcare facilities. This, in turn, will help to ensure that healthcare facilities are better equipped to respond to emergencies and provide essential services to their communities.

b) Pilot Testing:

The updated Hospital Safety Index will be pilot tested in four health facilities (i.e., three provincial hospitals and one district hospital across three provinces) identified by the MOH, these being Sekong Provincial hospital, Attapeu Provincial hospital, Champasak Provincial hospital and Phonthong district hospital, as depicted on the map below.



To comprehend the current safety management practices at the targeted hospitals, a series of interviews with key stakeholders will be conducted at each location. Additionally, on-site inspections of the targeted hospitals will be conducted to gather information on structural factors and equipment.

Using the revised tool, a multidisciplinary team will evaluate each facility's safety index. This index is made up of three subindices: structural safety, nonstructural safety, and emergency and disaster management, with each subindex rated proportionally as percentage 'Unlikely to function', 'Likely to function', and 'Highly likely to function'. The total index score between 0 and 1 which bundles the three subindex scores allows categorization of each health facility into one of three levels: A (0.66-1), B (0.36-0.65), or C (0-0.35). Recommendations on areas that require improvement will be given to each facility accordingly.

Data management

To collect and store the data, Kobo toolbox will be used as the primary mobile data collection tool. This platform provides an efficient and user-friendly approach for data collection, enabling easy storage, management, and sharing of data. All data collected using Kobo toolbox will be stored in a centralized database, which will be easily accessible to the research team.

After the data has been collected and stored, the analysis process will begin. To achieve this, a mathematical model initially developed by WHO will be adapted for use in the Lao context. The mathematical model has been designed to assess healthcare facilities' safety, measuring structural and non-structural elements, emergency and disaster preparedness, and other factors that contribute to healthcare facility safety.

Customizing the initial weight factors for each module to the Lao context will ensure that the analysis is carefully tailored and relevant to the country's unique healthcare system. The indices will then be calculated within the previously defined thresholds. These thresholds will have been predetermined and agreed upon by the research team, ensuring that the analysis is consistent and uniform across all facilities.

At the same time, information regarding water, sanitation, and hygiene will also be collected using the same method. By collecting and analyzing data on both healthcare facility safety and WASH, the research team will be able to gain a comprehensive understanding of the current status of healthcare facility safety in the country and provide insights into areas where improvements can be made.

National roadmap for Lao PDR Hospital Safety Assessment and capacity building

The project encompasses a critical task of developing a comprehensive national roadmap for the Lao PDR hospital safety assessment. This roadmap will serve as a strategic guide, outlining priority

actions and identifying key individuals responsible for leading the assessment process. To ensure the success of this important initiative, UN-Habitat will provide technical assistance and expertise, working closely with national stakeholders.

Moreover, a key component of the project involves the creation of tailored training modules that will facilitate the effective utilization of the adapted hospital safety index tool. These modules will be specifically designed to meet the needs of the Lao context. The training will be conducted in ten targeted provinces, namely Khammouane, Luang Namtha, Bokeo, Huaphanh, Xiengkhuang, Savannakhet, Champasack, Salavanh, Sekong, and Attapeu.

To promote sustainability and scalability, the training will follow a Training of Trainers (ToT) model. Two workshops will be organized, with one dedicated to the northern provinces and another to the middle and southern provinces. Participants in the ToT workshops will acquire the necessary skills and knowledge to effectively apply the revised hospital safety index, utilizing questionnaires and mobile data collection methods. They will also be equipped to replicate the training at the district level within their respective provinces.

The aim of these capacity-building efforts is to enhance the overall hospital safety assessment capabilities within the Lao PDR healthcare system. By empowering local trainers and expanding their reach, the project seeks to create a sustainable framework for continuous improvement in hospital safety across the country.

c) Deliverables:

Technical reports will be prepared in both Lao and English and will be both reviewed for technical accuracy and edited for language by members of the team. The following reports will be delivered:

1. Hospital safety assessment report: This report will deliver the results of the pilot test of the adapted hospital safety index, including structural, non-structural, and emergency and disaster management factors. Based on the results, the report will provide recommendations for the prioritization of risk reduction and emergency management improvements.
2. Lao PDR Hospital Safety Index: The hospital safety index report will include:
 - a. Adapted version of the hospital safety index after finalization following pilot-testing.
 - b. Adapted version of the WASH FIT module.
 - c. Training materials for building capacity in the use of the hospital safety index.
 - d. Reports of completed workshops to train health workers in the use of the hospital safety index.

Activity 3: Development of Standard Operating Procedure (SOP) and action plan for water supply and sanitation sources in case of health emergency

Public health emergencies can have a significant impact on the functioning of hospitals and other healthcare facilities. When water and sanitation systems are disrupted, or power grids are damaged, the ability of hospitals to provide essential services can be compromised, putting patients and staff at risk. For this reason, it is critical for health facilities to have robust preparedness and response plans in place to mitigate the impact of emergencies and ensure continuity of care.

One essential component of such plans is the development of SOPs or guidelines for preparedness and responses to health and hygiene emergencies. These documents provide a framework for health facilities to respond effectively to a range of emergency situations, from disease outbreaks to natural disasters. SOPs can cover a variety of topics, including infection prevention and control, waste management, water and sanitation, and communication protocols. By establishing clear guidelines for emergency response, health facilities can help ensure the safety of patients and staff and minimize the spread of infectious diseases.

Another key component of emergency preparedness is the creation of distribution plans for emergency provision of water supply and sanitation. During a public health emergency, hospitals and other healthcare facilities may experience disruptions to their water and sanitation systems, making it difficult to maintain adequate hygiene standards. Distribution plans help to ensure that hospitals have access to clean water and adequate sanitation facilities, even in the midst of an emergency. These plans may include the establishment of alternative water sources, such as water tanks or boreholes, as well as protocols for the safe disposal of waste (Both human excreta and solid waste along with health care waste).

In this context, the Lao PDR hospital safety assessment project is taking steps to enhance the safety and resilience of health facilities across the country. One key focus of the project is the development of SOPs and guidelines for emergency preparedness and response. By working closely with health facilities and stakeholders across the country, the project aims to ensure that these guidelines are tailored to the specific needs of Lao PDR and can be effectively implemented in a range of emergency situations. Additionally, the project is developing distribution plans for emergency provision of water supply and sanitation, helping to ensure that health facilities can maintain critical hygiene standards even in times of crisis. By taking these steps to enhance emergency preparedness, the project aims to help protect the health and wellbeing of communities across Lao PDR.

Methodology:

- a) Development of Standard Operating Procedure (SOP) and Guidelines for Emergency Preparedness and Response for Health facilities in Lao PDR

This will commence by conducting a thorough desk review of the existing institutional and legislative framework pertaining to emergency procedures and coordination mechanisms for water and sanitation systems in healthcare facilities throughout Lao PDR. Additionally, interviews will be held with relevant stakeholders to gain insights into current practices. The primary objective of this assessment is to identify any gaps or weaknesses within the emergency preparedness and response measures currently in place.

Based on this assessment and drawing from prior experience in developing Contingency Plans in other Asia-Pacific countries such as Nepal, UN-Habitat will provide assistance to create a Standard Operating Procedure (SOP) to enhance emergency preparedness and response in Lao PDR. This SOP will encompass specific protocols for various facilities, including infection prevention and control measures such as hand washing, access to toilets, and waste management and safe waste disposal. Additionally, the SOP will address communication strategies and continued service provision of water, sanitation, and hygiene (WASH).

- b) Development of Distribution Plans for Emergency Provision of WASH to Health Facilities

In order to ensure practical adherence to the SOP pertaining to water, sanitation, and hygiene (WASH) protocols during and after emergencies, UN-Habitat will provide assistance in developing distribution plans for the emergency provision of water supply and sanitation in hospitals and other healthcare facilities. This scope will include, as relevant, the identification of alternative water sources, establishment of temporary toilet facilities, and the provision of emergency technical materials and infrastructure.

To ensure availability and efficient management of emergency WASH infrastructure, responsible partners will be identified, including the responsible government stakeholders at the national level, development partners, and private sector entities.

Deliverables:

The following will be delivered under Activity 3:

1. Standard Operating Procedure (SOP).
2. Distribution plan for Emergency Provision of WASH to Health Facilities.

The deliverables will be made available in both the Lao and English languages. This will facilitate effective communication and knowledge sharing among stakeholders, ensuring that the findings are accessible and usable within the context of Lao PDR.

		<i>1 Jun</i>	<i>2 Jul</i>	<i>3 Aug</i>	<i>4 Sept</i>	<i>5 Oct</i>	<i>6 Nov</i>	<i>7 Dec</i>	<i>TOTA</i>
<i>No.</i>	<i>Deliverables</i>	2 0 2 3	2 0 2 3	2 0 2 3	2 0 2 3	2 0 2 3	2 0 2 3	2 0 2 3	2 0 2 3
	<i>Desk review on existing hospital safety assessment practice</i>								
	<i>Hospital Safety Index questionnaire adaptation to the Lao context</i>								
	<i>Pilot test. Field data collection in 3 target provinces</i>								
	<i>Data analysis</i>								
D-7	<i>Lao PDR Hospital Safety Index</i>								
	<i>Develop a national road map and training materials</i>								
	<i>Conduct capacity building workshops for the targeted Provinces</i>								
ACTIVITY 3									
D-8	<i>A SOP/Guideline for WASH during preparedness and emergency</i>								
	<i>Desk review on institutional and legislative framework</i>								
	<i>Stakeholder interviews and assessments</i>								
	<i>Development of SOP</i>								
D-9	<i>A distribution plan for emergency provision of water supply and sanitation.</i>								
	<i>Development of emergency water distribution plan</i>								
	<i>Technical review and adjustments</i>								

[Note to UN-Habitat User: UN-Habitat’s internal “grant expiry date” is set up 3 months prior to the Completion Date to ensure that UN-Habitat has sufficient time for the financial closure and issue the final financial statement 3 months thereafter.]

Annex



STANDARD TEMPLATE

Provision of Technical Assistance by UN-Habitat under Bank-Financed Projects

A small, handwritten signature or set of initials in the bottom right corner of the page.

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FOREWORD

1. This Technical Assistance Standard Form of Agreement is the result of cooperation between the World Bank (“the Bank”)¹ and the United Nations Human Settlements Programme (“UN-Habitat”).
2. This template was approved by respective signatures of the World Bank Vice-President for Operations Policy and Country Services and UN-Habitat Administrator, on April 12, 2019. It replaces the earlier posted trial version (v.1).
3. The provisions in the General Conditions section of this Agreement related to financial management, audit, and fraud and corruption prevention, derive from the Financial Management Framework Agreement (FMFA) and the Fiduciary Principles Accord between UN Agencies (including UN-Habitat) and the World Bank.
4. The text shown in *italics* is “Notes to Users”, which provide guidance to the implementing entity of the Bank’s Borrower and to UN-Habitat task team in preparing a specific Agreement. These *Notes to Users* should be deleted from the final version prior to signing of the Agreement.
5. Those wishing to submit comments or questions on this document, or guidance on these of this template, shall contact unagencies@worldbank.org.

¹References in this Agreement to the “World Bank” or “Bank” include both the International Bank for Reconstruction and Development (IBRD) and the International Development Association (IDA).

Public disclosure is authorized after the signing

AGREEMENT
FOR PROVISION OF TECHNICAL ASSISTANCE

Assessing of Health Facility and Lifeline Infrastructure for Health Emergency Preparedness in Lao PDR

Project Name²: Lao PDR COVID-19 Response Project Grant No. B5891

Reference No. AF-C07

UN-Habitat Reference No. S1-32QXB-000728 Project

Closing Date³: 31/12/2023

Financing Agreement⁴ Closing Date: 31/12/2023

between

THE GOVERNMENT OF LAO PDR

and the

UNITED NATIONS HUMAN SETTLEMENTS PROGRAMME (UN-Habitat)



² [**Note to Users:** "Project Name" refers to the project title as stated in the legal agreement (Financing Agreement) between the World Bank and the Government. It should not be confused with the name of the UN Agency's project or program financed from other sources.]

³ [**Note to Users:** "Project Closing Date" is stated in the Financing Agreement between the Bank and the Government.]

⁴ [**Note to Users:** "Financing Agreement" is a legal agreement between the financier (the World Bank) and the Government.]

FORM OF AGREEMENT

THIS AGREEMENT (together with all Annexes hereto, this “Agreement”) is entered into between **THE GOVERNMENT OF LAO PDR** by and through its Ministry of Health (the “Government”), and the **UNITED NATIONS HUMAN SETTLEMENTS PROGRAMME (UN-Habitat)**, a subsidiary organ of the United Nations, an intergovernmental organization established by its Member States under the Charter signed on 26 June 1945, with its headquarters at 1 UN Plaza in New York, New York, 10017, USA (“UN-Habitat” or the “UN Partner”, together with the Government, the “Parties” and each a “Party”).

WHEREAS

- A. UN-Habitat, a subsidiary organ of the United Nations, serves in many respects as the operational arm of the United Nations at the country level and cooperates with the Government and development partners to promote among other things sustainable development, eradication of poverty, advancement of women, good governance and the rule of law. UN-Habitat and the Government cooperate with respect to the formulation, adoption and implementation of the Government’s development policies, programmes and projects, towards achieving enhanced levels of inclusive and sustainable development of Lao People’s Democratic Republic, in accordance with the Standard Basic Assistance Agreement or the basic agreement governing UN-Habitat’s assistance to the country (the “Basic Agreement”).
- B. The Government, working with its development partners, including UN-Habitat and the World Bank (the “Bank”) ⁵, has developed and is implementing Lao PDR COVID-19 Response Project (the “Project”). The Government “has received” funds from the Bank (the “Financing”) towards the cost of the Project pursuant to a legal agreement between the Government and the Bank for the Project (the “Financing Agreement”).
- C. As part of Project implementation, the Government has asked UN-Habitat, and UN-Habitat has agreed, to provide the Technical Assistance as set forth in **Annex I** to this Agreement (“Technical Assistance”).

NOW, THEREFORE, the Parties agree as follows:

- 1. The Government intends to apply a portion of the proceeds of the Financing up to a total amount of US\$ **210,502** (*Two Hundred Ten Thousand Five Hundred and Two US Dollars only*) (the “Total Funding Ceiling”) to eligible payments under this Agreement. The Total Funding Ceiling is the Parties’ best estimate (as of the date of the signing of this Agreement) calculated in **Annex II** on the basis of deliverables and the timeline agreed by the Parties in **Annex I**.

⁵ References in this Agreement to the “World Bank” or “Bank” include both the International Bank for Reconstruction and Development (IBRD) and the International Development Association (IDA).

2. This Agreement is signed and executed in the *English* language, and all communications, notices, modifications and amendments related to this Agreement shall be made in writing and in the same language.
 3. This Agreement becomes effective on the date of its last signature (the “Effective Date”).
 4. All activities under this Agreement shall be fully completed and all expenses incurred by 31st December 2023 (the “Completion Date”)⁶. The Completion Date can’t exceed the Project Closing date. UN-Habitat shall issue the final financial statement not later than twelve (12) months after the Completion Date.
 5. The Government designates Prof. Dr. Bounsarth KEOPRASITH, the director general of Department of Planning and Finance, Ministry of Health and the UN- Habitat designates Dr. Avi Sarkar, Regional Technical Advisor of UN-Habitat Lao PDR as their respective authorized representatives for the purpose of coordination of activities under this Agreement. The contact information for the authorized representatives is as follows:
 - a. Government representative: +856 20 23216 888, bounsarth@gmail.com
 - b. UN-Habitat representative: +856 21 267713, avi.sarkar@un.org.
 6. For the Project coordination purposes, the Bank’s staff contact information is as follows:
 - a. Bank Task Team Leader: +1 (202) 294-676, emasaki@worldbank.org
 7. This Agreement shall be interpreted in a manner that ensures it is consistent with the provisions of the Basic Agreement and the provisions of the 1946 Convention on the Privileges and Immunities of the Specialized Agencies (“Convention”). However, that if Laos People’s Democratic Republic has not acceded to said Convention in respect of UN-Habitat, the Government agrees to apply to UN- Habitat the provisions of the 1946 Convention on the Privileges and Immunities of the United Nations (the “General Convention”).
 8. Nothing contained in or relating to this Agreement shall be deemed a waiver, express or implied, of any of the privileges and immunities of the United Nations, including UN-Habitat under the General Convention, the Basic Agreement, or otherwise.
 9. The Government confirms that no official of the UN-Habitat has received or will be offered by the Government any benefit arising from this Agreement. UN-Habitat confirms the same to the Government. The Parties agree that any breach of this provision is a breach of an essential term of this Agreement.
-

⁶ **[Note to UN-Habitat Users:** *UN-Habitat’s internal “grant expiry date” is set up 3 months prior to the Completion Date to ensure that UN-Habitat has sufficient time for the financial closure.*]

10. The following documents form an integral part of this Agreement:

(a) General Conditions of Agreement

(b) Annexes:

Annex I: Description of Technical Assistance and Work Plan

Annex II: Total Funding Ceiling and Payment Schedule



Annex III: Reporting Requirements

Annex IV: Counterpart Staff, Services, Facilities and Property to Be Provided by the Government

Annex V: UN-Habitat Full Cost Recovery

11. UN-Habitat’s payment details are provided in the Payment Schedule in **Annex II**.

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement. 

<p>GOVERNMENT OF LAO PEOPLE’S DEMOCRATIC REPUBLIC REPRESENTED BY MINISTRY OF HEALTH</p>  <p>By: _____</p> <p>Name: Dr. Bounsarth Keoprasith</p> <p>Title: Director General of Department of Planning and Finance</p> <p>Date: 18 MAY 2023</p>	<p>UNITED NATIONS HUMAN SETTLEMENTS PROGRAMME</p>  <p>By: _____</p> <p>Name: Mr. Bruno Dercon</p> <p>Title: Officer in Charge, Regional Office for Asia and the Pacific</p> <p>Date: 23 May 2023</p>
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The text of the clauses in these General Conditions of Agreement shall not be modified.

GENERAL CONDITIONS OF AGREEMENT

DEFINITIONS

1. Unless expressly indicated otherwise, the following terms whenever used in this Agreement have the following meaning:
 - (a) “Staff” means an individual who holds a letter of appointment with the UN Partner or is on loan to the UN Partner by another UN organization or specialized agency under the terms of the *Inter-organization Agreement Concerning Transfer, Secondment or Loan of Staff among the Organizations Applying the United Nations Common System of Salaries and Allowances*, it being understood that Staff have the status of “officials” under the General Convention;
 - (b) “Consultant” means an individual other than a Staff who has signed an individual service or consultant agreement with the UN Partner, it being understood that Consultants have the status of “experts on mission” under the General Convention;
 - (c) “Contractor” means a legal entity which has concluded a commercial or corporate contract with the UN Partner. When applicable, the term includes “implementing partners” or “partner organizations” as defined and used in the UN Partner’s regulations, rules, policies and procedures;
 - (d) “Day” means business day, unless otherwise stated;
 - (e) “Direct Costs” means the actual cost of the UN Partner that can be directly traced to the activities and deliverables set forth in **Annex I**;
 - (f) “Indirect Costs” means costs incurred by the UN Partner as a function of and in support of the Technical Assistance, which cannot be traced unequivocally to the Technical Assistance; the rate applicable to this Agreement is stated in **Annex V**.
 - (g) “Technical Assistance” means the advisory services and related activities, including training, to be carried out by the UN Partner pursuant to this Agreement and as described in **Annex I**.

SCOPE AND GENERAL OBLIGATIONS OF THE PARTIES

2. The UN Partner agrees to:
 - (a) provide the Technical Assistance within the scope and in accordance with the timetable and such level of input by the team of Staff, Consultants and Contractors (the “Work Plan”) as detailed in **Annex I**; and
 - (b) keep the Government informed on the progress of the activities towards achieving the required deliverables by timely submission of the progress reports in accordance with the reporting requirements and with frequency set out in **Annex III** (the “Progress Reports”).
3. The Government agrees to:
 - (a) make timely and complete payments to the UN Partner of all amounts (either directly or by authorizing the Bank to pay on the Government’s behalf) due under this Agreement and within the Total Funding Ceiling and in accordance with the payment schedule set out in **Annex II** (the “Payment Schedule”); and
 - (b) provide all required support in connection with the UN Partner’s obligations under this Agreement, including: obtaining or assisting with obtaining all permits, licenses, import approvals, and other official approvals related to any supplies (including as provided under the terms of the Basic Agreement), furnishing powers of attorney or authorizations to the UN Partner and cooperating with the UN Partner in a timely and expeditious manner.
4. The Parties acknowledge the Government’s commitment to the successful implementation of this Agreement and to that end the Government will provide qualified staff and other required inputs as agreed by the Parties in **Annex IV**.
5. The Parties acknowledge that the Technical Assistance and/or the Work Plan may need to be adjusted, with the agreement of both Parties, during the course of the implementation of this Agreement.

TOTAL FUNDING CEILING AND PAYMENTS

6. Calculations of the Total Funding Ceiling are provided in **Annex II**. The Total Funding Ceiling includes both Direct Costs and Indirect Costs of the UN Partner explained in **Annex V**.
7. Cumulative disbursements under this Agreement shall not exceed the Total Funding Ceiling unless it is revised through a written amendment approved by the Bank in response to the Government’s request. The Government confirms to the UN Partner that the Government’s disbursements under this Agreement are, in all respect, consistent with the terms and conditions of the Financing Agreement, and no party other than the Government shall derive any rights from the Financing Agreement or have any claim to the Financing proceeds.

8. The payments to the UN Partner under this Agreement shall be made in accordance with the Payment Schedule.
9. The Government will make the payments (either directly or by authorizing the Bank to pay on the Government's behalf) to the UN Partner account, by wire transfer against the documents set out in the Payment Schedule. All payments will be made in United States dollars.
10. The UN Partner will receive and administer the funds received under this Agreement in accordance with the UN Partner's regulations, rules, policies and procedures. Any interest derived by the UN Partner from the funds received under this Agreement will be dealt with in accordance with the UN Partner's regulations, rules, policies and procedures.
11. The UN Partner will maintain a separate identifiable fund code (ledger account or "Account") to which all UN Partner's receipts and disbursements for the purposes of this Agreement will be recorded. The ledger account shall be subject exclusively to the UN Partner's internal and external audit in accordance with the UN Partner's financial regulations and rules. The Parties acknowledge that the UN Partner's financial books and records are routinely audited in accordance with the internal and external auditing procedures laid down in the UN Partner's financial regulations and rules, and that the external auditors of the UN Partner are appointed by and report to the UN Partner's policymaking organ. Throughout the term of this Agreement, the UN Partner will ensure that its audited accounts and the External Auditors' Report are posted on its website within ten (10) days of their becoming public documents by reason of being presented to the UN Partner's policymaking organ.
12. In the event that the final financial statement to be provided under **Annex III** (the "Final Financial Statement") indicates a balance of funds in favor of the Government, the Government will consult with the Bank and provide relevant payment instructions to the UN Partner to process the refund. The UN Partner shall transfer the refund within thirty (30) calendar days of its receipt of the payment instructions.
13. The UN Partner shall not be required to commence or continue the provision of the Technical Assistance until the UN Partner has received the payments due in accordance with the Payment Schedule and it shall not be required to assume any liability in excess of such payments.

STAFF, CONSULTANTS AND CONTRACTORS

14. The UN Partner will put together a team of qualified Staff, Consultants and Contractors as, in the UN Partner's judgment, are required to carry out the Technical Assistance.
15. The Parties acknowledge that at the time of the signing of this Agreement, the UN Partner may not have been able to identify and/or contract Consultants and Contractors. In such case, the UN Partner will promptly provide names and

Curriculum Vitae (CV) to the Government once they are contracted by the UN Partner.

16. The UN Partner shall remain fully responsible for the performance of the Technical Assistance by its assigned team. The hiring and contracting of any Staff, Consultants or Contractors by the UN Partner in connection with this Agreement shall be done according to the UN Partner's established regulations, rules, policies and procedures, and bearing in mind the considerations and requirements of the Bank that are listed below:
 - (a) Prohibition of Conflicting Activities. The Staff, Consultants or Contractors shall not engage, either directly or indirectly, in any business or professional activities which could conflict with the activities performed under their respective contract with the UN Partner.
 - (b) Disqualification from Related Contracts. During the term of this Agreement and after its Early Termination or Completion, the Government will disqualify Staff, Consultants and Contractors, and any party affiliated with any of them, from providing (i) goods, works and non-consulting services resulting from, or directly related to consulting services under this Agreement, and (ii) consulting services resulting from or directly related to goods, works or non-consulting services under this Agreement, and shall not engage or hire them for any assignment that, by its nature, may be in conflict with this Agreement.
 - (c) Hiring Government Institutions or Government Officials. The UN Partner shall not engage or hire any official or civil servant of the Government's country as a Consultant or a Government institution or any Government-owned enterprise as a Contractor under this Agreement, unless it has been established by the Government to the Bank's satisfaction that such hiring or contracting meets the Bank's eligibility requirements under the procurement rules set forth in the Financing Agreement.
17. **Standard of Performance**. The UN Partner will carry out its obligations under this Agreement with all due diligence, efficiency and economy, in accordance with generally accepted professional techniques and practices, and shall observe sound management practices.
18. **Removal and/or Replacement of Staff, Consultants, Contractors**. If, for any reason beyond the reasonable control of the UN Partner, it becomes necessary to substitute any member of the team as included in **Annex I**, the UN Partner shall promptly replace such member with another having the required or better qualifications. For substitution of Consultants or Contractors' personnel, where relevant, the UN Partner will submit to the Government a copy of the replacement's CV for information.
19. If the Government becomes aware of information that any of the UN Partner's Staff or Consultants has engaged in a corrupt, fraudulent, collusive or coercive practice or reasonably concludes that the performance of any of the UN Partner's Staff or Consultants is unsatisfactory, then the Government shall promptly share the

sufficiently detailed information with the UN Partner specifying the grounds

therefore. If, after receiving the Government's written request, the UN Partner investigates the alleged corrupt, fraudulent, collusive or coercive practice or reviews the alleged unsatisfactory performance and concludes that the corrupt, fraudulent, collusive or coercive practice and/or the dissatisfaction with the performance of the UN Partner's Staff or Consultant justifies his/her replacement, the UN Partner will proceed with a replacement within the timeframe that is in line with the implementation schedule of this Agreement, subject to the UN Partner's regulations, rules, policies and procedures.

INTELLECTUAL PROPERTY AND PROPRIETARY RIGHTS

20. Each Party shall retain full and sole ownership of its preexisting copyright, patent rights and other proprietary rights. All copyright, patent rights and other proprietary rights in plans, drawings, specifications, designs, reports, other documents and discoveries developed or prepared by the UN Partner under this Agreement shall belong to the UN Partner. The UN Partner herewith grants to the Government a perpetual, non-revocable, royalty-free, transferable (including the right to sub-license), fully paid-up, non-exclusive license to copy, distribute and use any such copyright, patent rights and other proprietary rights.

MATERIALS AND EQUIPMENT

21. The procurement of any supplies and equipment by the UN Partner that are necessary for the UN Partner's team to provide the Technical Assistance and use of funds provided by the Government under this Agreement will be done according to the UN Partner's established regulations, rules, policies and procedures. The cost of such supplies and equipment shall not exceed twenty five (25) percent of the Total Funding Ceiling. Any increase above twenty five (25) percent shall be subject to prior approval of the Bank, to be obtained by the Government.
22. When relevant, the Parties shall agree on the timing and modality of the ownership and any manufactures' warranties, as applicable, of any equipment at the completion of this Agreement. Any equipment made available to the UN Partner by the Government during this Agreement shall remain the property of the Government.

INSURANCE

23. Throughout the term of this Agreement, the UN Partner will, unless self-insured against the following risks, ensure that insurance is maintained against: third-party liability and third-party motor vehicle liability; workmen's compensation or equivalent; and all-risk insurance against loss of or damage to equipment and materials purchased in whole or in part with funds provided under this Agreement until transferred to the Government.
24. In addition,
 - (a) with regard to Staff, the UN Partner will ensure that Staff is enrolled in an appropriate health insurance plan, whether offered by the UN Partner or otherwise; is covered by compensation in the event of injury, sickness or death

attributable to performance of official duties for the UN Partner; and is covered by insurance against death or disability caused by malicious acts;

- (b) with regard to Consultants, the UN Partner will ensure that the Consultant is enrolled in an appropriate health insurance plan or requires in its contract with the Consultant that the Consultant maintain appropriate health insurance; maintain an insurance arrangement against injury, sickness or death attributable to the performance of official duties for the UN Partner; and maintain an insurance against death or disability caused by malicious acts.

25. The cost of such insurance is deemed included in the Total Funding Ceiling.

REPORTING

- 26. The UN Partner will keep accurate accounts and records in respect of the funds made available under this Agreement, in accordance with the UN Partner's financial regulations and rules and in such form and detail as will clearly identify all relevant charges and costs for corresponding deliverables.
- 27. The UN Partner will provide written Progress Reports to assist the Government in monitoring implementation progress towards provision of the Technical Assistance, and the remaining balance under the Total Funding Ceiling (a "Progress Report"). Reporting requirements, including frequency, are set out in **Annex III**.
- 28. Upon reasonable request from the Government and following consultations between the UN Partner and the Government, the UN Partner may furnish supplemental information or documentation, within the limits of the UN Partner's regulations, rules, policies and procedures.

FORCE MAJEURE

- 29. Either Party prevented by force majeure from fulfilling its obligations shall not be deemed in breach of such obligations. The said Party shall use all reasonable efforts to mitigate the consequences of force majeure. At the same time, the Parties shall consult with each other on modalities of further execution of the Agreement. Force majeure as used in this Agreement is defined as natural catastrophes such as but not limited to earthquakes, floods, cyclonic or volcanic activity; war (whether declared or not), invasion, act of foreign enemies, rebellion, terrorism, revolution, insurrection, military or usurped power, civil war, riot, commotion, disorder; ionizing radiation or contaminations by radioactivity; and other acts of a similar nature or force.

FRAUD AND CORRUPTION PREVENTION

- 30. In the event that the Government, the UN Partner or the Bank becomes aware of information that indicates the need for further scrutiny of the implementation of the Technical Assistance or use of the funds provided by the Government pursuant to this Agreement (including non-frivolous allegations that indicate the possibility that corrupt, fraudulent, coercive or collusive practices may have occurred), the entity

that has become aware of such information will promptly notify the other two.

31. In such case, this information will be brought promptly to the attention of the appropriate official or officials at the Government, the UN Partner and the Bank.
32. After consultation with the Government and the Bank, the UN Partner will, to the extent the information relates to actions within the authority or accountability of the UN Partner, take timely and appropriate action in accordance with its regulations, rules, policies and procedures, to investigate this information. The Parties agree and acknowledge that the UN Partner shall have no authority to investigate information relating to possible corrupt, fraudulent, coercive or collusive practices by Government officials or by officials or consultants of the Bank.
33. To the extent that such an investigation confirms corrupt, fraudulent, collusive or coercive practices have occurred and to the extent that remedial action is within the authority of the UN Partner, the UN Partner will take timely and appropriate action in response to the findings of such an investigation, in accordance with its accountability and oversight framework and established procedures, including its regulations, rules, policies and procedures.
34. To the extent consistent with the UN Partner's accountability and oversight framework, including its regulations, rules, policies and procedures, the UN Partner will keep the Government and the Bank regularly informed by agreed means of actions taken, and the results of the implementation of such actions, including where relevant, details of any recovered amounts. Such recovered amounts, if any, shall be applied in the calculation of the final balances in the budget code (Account), or if such amounts are recovered after the date of the calculation and transfer of such final balances, the Government will consult with the Bank and provide payment instructions to the UN Partner with respect to such amounts.
35. For the purposes of this Agreement, the following definitions shall apply:
 - (i) "corrupt practice" is the offering, giving, receiving or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;
 - (ii) "fraudulent practice" is any act or omission, including misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain financial or other benefit or to avoid an obligation;
 - (iii) "collusive practice" is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;
 - (iv) "coercive practice" is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party.
36. In the event that the Government or the Bank reasonably believes that the UN Partner has not complied with the requirements of this section, the Government or

the Bank may request direct consultations at a senior level between the Bank,
the

Government and the UN Partner in order to obtain assurances, in a manner consistent with the UN Partner's oversight and accountability framework and respecting appropriate confidentiality, that the UN Partner's oversight and accountability mechanisms have been or will be fully applied. Such direct consultations may result in an understanding between the Government, the Bank, and the UN Partner, on any further actions to be taken and the timeframe for such actions. The Parties take note of the relevant provisions in the regulations, rules, policies and procedures of the UN Partner.

37. The Parties agree and acknowledge that nothing in this section shall be deemed to waive or otherwise limit any right or authority of the Bank or any other entity of the World Bank Group under the Financing Agreement or otherwise, to investigate allegations or other information relating to possible corrupt, fraudulent, coercive, collusive or obstructive practices by any third party, or to sanction or take remedial action against any such party which the World Bank Group has determined to have engaged in such practices; provided however that in this section, "third party" does not include the UN Partner. To the extent consistent with the UN Partner's oversight framework, including regulations, rules, policies and procedures, and if requested by the Bank, the UN Partner shall cooperate with the Bank or such other entity in the conduct of such investigations.
38. (a) The UN Partner requires any party with which it has a long-term arrangement or to which it intends to issue a purchase order or a contract in connection with this Agreement to disclose to the UN Partner whether it is subject to any sanction⁷ or temporary suspension imposed by any organization within the World Bank Group. The UN Partner will give due regard to such sanctions and temporary suspensions, as disclosed to it when issuing contracts in connection with the provision of the Technical Assistance under this Agreement.
- (b) If the UN Partner intends to issue a contract in connection with the provision of any of the Technical Assistance activities under this Agreement with a party which has disclosed to the UN Partner that it is under sanction or temporary suspension by the World Bank Group, the following procedure will apply: (i) the UN Partner will so inform the Government, with a copy to the Bank, before signing such contract; (ii) the Government and the Bank then may request direct consultations at a senior level, if required, between the Bank, the Government and the UN Partner to discuss the UN Partner's decision; and (iii) if after such consultation, the UN Partner elects to proceed with the issuance of the contract, the Bank may inform the UN Partner by notice, with a copy to the Government, that the proceeds of the Financing may not be used to fund such contract.
- (c) Any funds received by the UN Partner under this Agreement that were to be used to fund a contract in respect of which the Bank has exercised its rights under paragraph 38(b)(iii) shall be used to defray the amounts requested by the UN Partner in any subsequent Payment Request, if any, or will be treated as a balance in favor of the Government in the calculation of the final balances upon Completion or Early Termination of this Agreement.

⁷ www.worldbank.org/debar

SETTLEMENT OF DISPUTES BETWEEN THE PARTIES

39. This Agreement shall be governed by general principles of international law, which shall be deemed to include the UNIDROIT *General Principles of International Commercial Contracts* (2010). Any dispute, controversy or claim arising out of or relating to this Agreement shall be resolved in accordance with the relevant provisions of the Basic Agreement or, failing such provision, if not settled by negotiation or other agreed mode of settlement, shall be submitted to arbitration at the request of either Party. Each Party shall appoint one arbitrator, and the two arbitrators so appointed shall appoint a third, who shall be the chairman. If within (30) thirty days of the request for arbitration either Party has not appointed an arbitrator or if within (15) fifteen days of the appointment of two arbitrators the third arbitrator has not been appointed, either Party may request the President of the International Court of Justice to appoint an arbitrator. The procedure of the arbitration shall be fixed by the arbitrators, and the expenses of the arbitration shall be borne by the Parties as assessed by the arbitrators. The arbitral award shall contain a statement of the reasons on which it is based and shall be accepted by the Parties as the final adjudication of the dispute.

EARLY TERMINATION

40. This Agreement may be terminated prior to the Completion Date ("Early Termination") by either Party upon thirty (30) calendar days' written notice to the other in the following circumstances:

- (a) The UN Partner is unable to perform a material portion of the Agreement for a period of sixty (60) calendar days as the result of force majeure; or if the UN Partner determines that under the prevailing circumstances related to the worsened security situation in the country it can no longer implement the activities under the Agreement;
- (b) The UN Partner does not receive payment of the full amount set forth in the payment request submitted in accordance with **Annex II** and that is not disputed by the Government, within thirty (30) calendar days of the date of such payment request;
- (c) Either Party is in breach of any of its material obligations under this Agreement and has not remedied the same within sixty (60) calendar days (or such longer period as the other Party may have subsequently agreed to in writing) following the receipt of the notice specifying such breach.

41. Upon receipt by one Party of the other Party's written notice of Early Termination of this Agreement, the Parties shall agree on the exit strategy to minimize any negative impact that can arise from an Early Termination of this Agreement and take all reasonable and necessary measures to complete as much of the activities as possible. In the case of Early Termination, the Parties shall agree on the deadline for the UN Partner to submit the last Progress Report and the Final Financial Statement and to refund any monies received by the UN Partner that have not been

spent or committed by the Early Termination or Completion Date.



MISCELLANEOUS

42. **Records keeping.** The UN Partner shall retain all records (contracts, reports, invoices, bills, receipts and other documentation) relating to this Agreement in accordance with the UN Partner’s documents retention policy.
43. **Relationship between the Parties.** Nothing contained in this Agreement will be construed as establishing a relation of principal and agent between the Government and the UN Partner. No agent or representative of either Party has authority to make, and the Parties shall not be bound by or be liable for, any statement, representation, promise or agreement not set forth herein.
44. **Headings.** The headings contained in this Agreement are for reference purposes only, and will not limit, alter or affect the meaning or interpretation of this Agreement.
45. **Notices.** Notices will be deemed “received” as follows:
- (a) in the case of personal delivery, on delivery as per date of the written acknowledgement;
 - (b) in the case of registered mail, fourteen (14) days after being sent;
 - (c) in the case of facsimiles or other electronic communications, forty-eight (48) hours following confirmed transmission.
46. Any such notice, request or consent shall be deemed to have been given or made when delivered in person to an authorized representative of the Party to whom the communication is addressed, or when sent to such Party at the address specified in the Form of Agreement.
47. **Modifications.** Modifications to this Agreement may be done for immaterial revisions or clarifications through a written exchange of correspondence between the Parties.
48. **Amendments.** Substantive revisions regarding (a) the key deliverables (outputs) as set forth in **Annex I**, (b) extension of the Completion Date or Early Termination or (c) the Total Funding Ceiling may be done only by a signed written amendment by the Parties. Such amendment will become effective only upon notification by the Government to the UN Partner that the Bank, as the case may be, has approved the amendment.



ANNEX I

DESCRIPTION OF THE TECHNICAL ASSISTANCE AND WORK PLAN

Description of the Technical Assistance shall include the following:

I. Objective and Expected Deliverables of the Technical Assistance

The Lao PDR COVID-19 Response Project has received financial support through the World Bank’s HEPR-Trust Fund aimed responding to the COVID-19 pandemic and enhancing the preparedness and resilience of healthcare facilities, workers, water, sanitation and waste management. As part of the HEPR-Trust Fund technical assistance project entitled “Strengthening Health Facility and Lifeline Infrastructure for Health Emergency Preparedness in Lao PDR” consultancy service is sought for the following three activities:

- *Activity 1: National Assessment of Multi-Hazard Risk to Health Facilities and Critical Infrastructure Under Climate Change*
- **Activity 2: Development and Pilot-Testing of Hospital Safety Index**
- *Activity 3: Development of Standard Operating Procedure (SOP) and distribution/action plan for the provision of water supply and sanitation in case of health emergency*

Activity 1: National Assessment of Multi-Hazard Risk to Health Facilities and Critical Infrastructure Under Climate Change

- **Institutional and Regulatory Assessment:** Working closely with the executing agencies and relevant government departments, to conduct a review of institutional and legislative frameworks, standards, regulations, guidelines affecting the planning, design, construction, retrofitting, and operation of hospitals and their access to critical infrastructure services (transport, water, electricity, etc) identifying major gaps and areas of priority actions in order to strengthen the climate and disaster resilience of hospital in Lao PDR.
- **Exposure Analysis of Critical Infrastructure and Health Facilities:** Analyse existing data of health facilities and related critical infrastructure assets in Lao PDR, examining their completeness and relevance to this assign, identifying gaps if any that should be filled with additional data collection. Design a data collection procedure, developing an appropriate set of questionnaires and help the client administer additional exposure data collection as needed. Exposure data should take into account factors may compromise the planning, design, construction, repair, retrofitting, and operation of hospitals and their link to critical infrastructure services under flood risk.
- **Flood Hazard and Risk Assessment:** Conduct multi-hazard assessments (for 17 provinces under the current and future climates). Develop and apply appropriate method(s)/metrics to evaluate risks to public health facilities and critical infrastructure, quantifying their interdependencies and cascading consequences of

health services disruption. Prepare provincial risk profiles of health facilities and



critical infrastructure with the identified hotspots to be prioritized for risk management interventions.

- **Data Management:** The Consultant is required to consolidate all information obtained with the identified existing data into a centralized, geospatial asset management database system. This system shall ideally build upon and consolidate any existing systems within Lao PDR (as applicable).
- **Reporting:** All technical reports should be prepared in Lao, with translation into English, and submitted to MOH and World Bank.

Activity 2: Development and Pilot-Testing of Hospital Safety Index

- **Lao PDR Hospital Safety Index:** Working closely with the executing agencies and relevant government departments, survey and examine the existing hospital safety assessment practice of Lao PDR including policy and regulatory requirements, institutional mandates and technical capacities for health facilities and critical infrastructure services continuity in emergency situations. Suggest the scope of hospital safety assessment appropriate to Lao PDR using the WHO's hospital safety index including the types of stakeholders to be involved, data collection procedures and analytical methods. Develop survey instruments, data management strategy, and site inspection procedures accordingly.
- **Pilot Testing:** In the target hospitals, identify and work with major stakeholders and pilot-test the localised hospital safety assessment, adapting the WHO's hospital safety index. Data collection should involve interviews with major stakeholders to understand the current practice of hospital safety management practices at the target hospitals. The consultant should also implement appropriate analyses such as rapid visual inspection of building integrity, critical facilities and equipment and review of emergency management and business continuity planning.
- **National roadmap and capacity building:** The Consultant will provide technical assistance to develop a national road map for scale-up of the Lao PDR hospital safety assessment. The national roadmap should clarify the strategy to scale-up the Lao PDR national hospital safety index in the context of existing health and disaster risk management sector policies, identifying timelines, priority actions and actors to lead the assessment of hospital safety. The consultant will work with relevant national agencies and developing partners to identify opportunities for improved alignment of the Lao PDR hospital safety assessment with the other ongoing health sector assessment initiatives currently being developed by WHO. The consultant will also develop training materials and conduct capacity building workshop(s) on the use of the Lao PDR Hospital Safety Index to health workers at the provincial health offices, provincial hospitals and district hospitals.
- Develop technical reports in Lao, with translation in English and submit to MOH and World Bank.

Activity 3: Development of Standard Operating Procedure (SOP) and action plan for water supply and sanitation sources in case of health emergency

- **Development of WASH SOP/Guideline for preparedness and responses for health and hygiene emergency,** including an estimate of water supply and sanitation

resources needed in case of a health emergency. Identified gaps and needs, with recommendations, from the assessment and consultation processes shall be used as inputs for development of SOP/Guideline for WASH during preparedness and emergency responses. SOP/Guideline should describe the step-by-step process that must be taken to perform routine activities for a person to survive and to keep hospital functions operational under preparedness and emergency conditions.

- **Development of distribution plan for emergency provision of water supply and sanitation** : The work plan should include a distribution plan of water supply, cleaning and decontamination materials for health emergency conditions in at risk provinces.

II. Agreed Activities and Deliverables

- **Deliverable 1: An inception report** outlining the scope and approaches to be taken for the institutional and regulatory assessment, exposure analysis, national assessment of multi-hazard risk to health facilities and critical infrastructure, **adaptation of health facility safety index and pilot-testing in the selected health facilities, WASH SOP/Guideline and distribution plan.**

Activity 1: National Assessment of Multi-Hazard Risk to Health Facilities and Critical Infrastructure Under Climate Change

- **Deliverable 1.1: A national multi-hazard risk assessment report** summarising institutional and regulatory assessment, exposure data of hospitals and critical infrastructure in Lao PDR, and 17 provincial risk profiles describing health facilities and critical infrastructure against multi-hazard risks under climate change. The national flood risk assessment report should identify the current and future risks and outline priority policy actions to improve hospital safety including critical infrastructure access. A spatial dataset of hazards, infrastructure assets developed for this assignment should also be submitted.

Activity 2: Development and Pilot-Testing of Hospital Safety Index

- **Deliverable 2.1:** A technical report consisting of hospital safety assessment conducted in Lao PDR outlining major structural and non-structural risks against cascading risks and priority actions for risk reduction and improved emergency management.
- **Deliverable 2.2:** The final version of the Lao PDR Hospital Safety Index, adapted for Lao PDR along with the national roadmap for scaling up of hospital safety index. Capacity building workshop(s) to health workers at the provincial health offices, provincial hospitals and district hospitals should also be completed the use of the Lao PDR Hospital Safety Index.

Activity 3: Development of Standard Operating Procedure (SOP) and action plan for water supply and sanitation sources in case of health emergency

- **Deliverable 3.1:** A SOP/Guideline for WASH during preparedness and emergency.
- **Deliverable 3.2:** A distribution plan for emergency provision of water supply and sanitation.

In-kind contribution

The methodology is dependent on close collaboration with the Ministry of Health. As a UN agency with an office in Vientiane, UN-Habitat does not require office space or equipment. However, in-kind contribution is required in the form of the following:

- Logistical organization and funding of all training workshops, including mobilization of workshop participants from provinces.
- Staff to collect and input data and monitor and coordinate data collection.
- Support with access to documents such as institutional and legislative frameworks, standards, regulations, guidelines affecting the planning, design, construction, retrofitting, and operation of hospitals and their access to critical infrastructure services. This will include liaison with other relevant ministries to access documents and to arrange interviews.

III. Work Plan and Timeline

No.	Deliverables	1 May 2023	2 Jun 2023	3 Jul 2023	4 Aug 2023	5 Sep 2023	6 Oct 2023	7 Nov 2023	TOTAL
D-1	Inception Report								
	Inception meeting								
D-2	Report on questionnaire structures, surveys and Kobo toolbox code								
	Questionnaire structures, surveys, translation, code into Kobo Toolbox								
ACTIVITY 1									
D-3	National multi-hazard risk assessment report								
	Desk review on institutional and legislative framework								
	Training to PHO focal points on data entry								
	Design the data collection monitoring Tool								
	Data collection at district level								
	Data analysis								
ACTIVITY 2									
D-4	Hospital safety assessment report								
	Desk review on existing hospital safety assessment practice								
	Hospital Safety Index questionnaire adaptation to the Lao context								
	Pilot test. Field data collection in 3 target provinces								
	Data analysis								
D-5	Lao PDR Hospital Safety Index								
	Develop a national road map and training materials								
	Conduct capacity building workshops for the targeted Provinces								
ACTIVITY 3									

No.	Deliverables	1 May 2023	2 Jun 2023	3 Jul 2023	4 Aug 2023	5 Sep 2023	6 Oct 2023	7 Nov 2023	TOTAL
D-6	A SOP/Guideline for WASH during preparedness and emergency								
	Desk review on institutional and legislative framework								
	Stakeholder interviews and assessments								
	Development of SOP								
D-7	A distribution plan for emergency provision of water supply and sanitation.								
	Development of emergency water distribution plan								
	Technical review and adjustments								

[Note to UN-Habitat User: UN-Habitat’s internal “grant expiry date” is set up 3 months prior to the Completion Date to ensure that UN- Habitat has sufficient time for the financial closure and issue the final financial statement 3 months thereafter.

The chronogram of activities below outlines the suggested schedule for activities

Activities	May				June				July				August				September				October				November				December							
	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4				
Inception Report																																				
Desk review on Institutional and legislative framework																																				
Questionnaire structure, survey, translation, code into KoboToolbox																																				
Training to PHO focal points on data entry																																				
Design the data collection monitoring Tool																																				
Data collection at district level																																				
Data analysis																																				
Technical Report																																				
Final Report																																				
Desk review on Institutional and legislative framework																																				
Hospital Safety Index questionnaire adaptation to the Lao context																																				
Questionnaire structure, survey, translation, code into KoboToolbox																																				
Pilot test. Field data collection in 3 target provinces																																				
Data analysis																																				
Develop a national road map and training materials																																				
Conduct capacity building workshops for the targeted Provinces																																				
Technical report																																				
Desk review on Institutional and legislative framework																																				
Stakeholder interviews and assessments																																				
Development of SOP																																				

Ongoing technical finalisation



Development of emergency water supply distribution plan
Technical review and adjustments



IV. UN-Habitat's Team**(1) Titles, time input and period of engagement:**

N°	Name	Expert's input (in person/month) per each Deliverable										Total time-input (in Months)		
		Position	D-1	D-2	D-3	D-4	D-5	D-6	D-7	Home	Field	Total		
TEAM MEMBERS														
1	Avi Sarkar	Team Leader	Field	[1]	[1]	[0.5]	[0.5]	[0.5]	0.5	0.5	0	4.5	4.5	
2	Juan Torres	Data management / Hazard risk	Field	[0.75]	[1.75]	[1]	[1.25]	[1.25]			0	6	6	
3	Phengphone Khamseansouk	Engineering /Infrastructure	Home	[0.5]	[2]	[1.5]	[1.25]	[1.25]		0.5	7	0	7	
4	Buahom Sengkhamyong	Infrastructure/ Engineering	Home	[0]	[0]	[1]	[1.25]	0.75]	0.25	0.25	3.5	0	3.5	
5.	Thatsanee Sanouban	Data management	[Home]	[0.5]	[2]	[1]	[1]	[1.5]			6	0	6	
6	Heather Robertson	Climate Change and Hazard Risk	Field	[1.5]	[1.5]	[1.5]			0.5	0.5	0	7	7	
7	Vilaysouk Ounvongsai	Operations Coordination	Home	[1]	[1.5]	[1.5]			0.25	0.25	7	0	7	
8	Health Expert	Health Expert	Field		[0.25]	[0.25]	[0.5]				0	1	1	
9	Sudha Shrestha	WASH Specialist	Home				0.25	0.25	0.25		0.75	0.25	1	
			Field						[0.25]					
10	Kumiko Hino	Project Management Specialist	Field		0.3	0.3	0.3	0.3	0.3			1.5	1.5	
										Sub-total	24.25	20.25		
										Total			44.5	

(2) Brief description of each position listed in the table above:

UN-Habitat has a multi-disciplinary team which is experienced in hazard risk assessment across Lao PDR provinces. The team will work in a collaborative manner and team members with relevant experience will work together on tasks. The team will consist of:

- Team Leader: Avi Sarkar
- Data management specialists: Juan Torres and Thatsanee Sanouban
- Hazard risk experts: Juan Torres and Heather Robertson
- Technical advisor: Heather Robertson
- Engineering: Buahom Sengkhamyong, Phengphone Khamseansouk and Thatsanee Sanouban
- Infrastructure: Buahom Sengkhamyong and Phengphone Khamseansouk
- Operations coordination: Vilaysouk Ounvongsai
- Health expert: TBD
- WASH expert: Sudha Shrestha
- Project Management Specialist: Kumiko Hino

(2) Short bio of UN-Habitat key personnel listed in Part II table, CVs of Consultants or, as applicable, Contractor's personnel

CURRICULUM VITAE (CV)

Position Title and No.	2. Engineering/infrastructure
Name of Expert:	Phengphone Khamseanouk
Date of Birth:	10/09/1979
Country of Citizenship/Residence	Lao PDR

Education:

- 2006 – 2011 International Bachelor of Computer Science (National University of Lao and Genetic Computer School Republic of Singapore)
- 2005 – 2008 International Diploma Computer Science (National University of Lao and Genetic Computer School Republic of Singapore)
- 2000 – 2004 Bachelor of Building Engineer (National University of Lao)
- 2000 – 2004 Diploma English Courses (National University of Lao)

Employment record relevant to the assignment:

Period	Employing organization and your title/position. Contact information for references	Country	Summary of activities performed relevant to the Assignment
2018 to present	UN-Habitat: Community Development and Engineer Coordinator	Lao PDR	Responsible including the Project Management Committee, Project Management Unit and CTA of UN-Habitat, support the development of training (including training materials) for communities, which will take place before and after the construction of the infrastructure, checking on the design of infrastructure, through technical drawings, bill of quantities, bidding documents, etc. provide quality assurance in the construction of infrastructure, oversee the construction of infrastructure and provide guidance to communities throughout the project, as required, participate in the training given to the provincial and national government, as required
2013 to 2018	Deputy Director of Phoenix Construction Company LTD.	Lao PDR	Responsible for coordinating with the Director in developing, implementing and evaluating comprehensive business plans to advance the organization's mission. supervising the team and providing program and planning support to ensure success, designing and facilitating educational training, workshops and convenings for all stakeholders regarding the importance of construction procedure, engaging in regular budget monitoring to ensure expenses, contracts, and activities align appropriately with a funding source, performing such additional duties as be assigned or required.

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March 2007 to February 2013	UN-Habitat Public Information Assistant and Site Progressing checking for Water for Asian Cities Programme and MEK-WATSAN Programme	Lao PDR	Responsible for assisting the Regional Chief Technical Advisor and Team Leader in carrying out water and sanitation activities updating, checking the progress of building on the office building and water supply system, collecting information on project towns, designing brochures for Laos, Vietnam and Cambodia, developing and updated web site for the local page, develop database tools, solved computer problems, was a GIS Mapping Specialist and assist in organizing project workshops/ training and materials.
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Membership in Professional Associations and Publications:

Language Skills (indicate only languages in which you can work): _Lao, Thai, English

Adequacy for the Assignment:

Detailed Tasks Assigned on Consultant's Team of Experts:	Reference to Prior Work/Assignments that Best Illustrates Capability to Handle the Assigned Tasks
{List all deliverables/tasks in which the Expert will be involved)	
<p>ACTIVITY 1</p> <p>Inception meeting Questionnaire structure, survey, translation, code into KoboToolbox National multi-hazard risk assessment report Training to PHO focal points on data entry Data collection at district level</p> <p>ACTIVITY 2</p> <p>Inception meeting Questionnaire structure, survey, translation, code into KoboToolbox Hospital safety assessment report Hospital Safety Index questionnaire adaptation to the Lao context Pilot test. Field data collection in 3 target provinces Data analysis Lao PDR Hospital Safety Index Develop a national road map and training materials Conduct capacity building workshops for the targeted Provinces</p>	<p>Very experienced in conducting trainings and workshops, including developing training materials.</p> <p>High level of engineering and construction expertise and experience in assessing infrastructure designs and construction, and reporting results.</p> <p>Experience in data collection and knowledge management.</p>

Expert's contact information:

E#-mail :
phengphone.khamseanouk@un.org
Phone : 2022226009

Certification:

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes myself, my qualifications, and my experience, and I am available, as and when necessary, to undertake the assignment in case of an award. I understand that any misstatement or misrepresentation described herein may lead to my disqualification or dismissal by the Client, and/or sanctions by the Bank.

Phengphone Khamseanouk



{09/12/22}



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Name of Expert

Signature

Date

{09/12/22}

Avi Sarkar

Name of authorized
Representative of the Consultant (the same who signs the Proposal)



Signature

Date

CURRICULUM VITAE (CV)

Position Title and No.	3. Operations Coordinator
Name of Expert:	Vilaysouk Ounvongsai
Date of Birth:	{ day/month/year }
Country of Citizenship/Residence	

Education:

Jan 2012 – Apr 2012 Certificate of project and advance accounting, Intouch Training Center, Vientiane, Laos

Nov 2011 – Jan 2012 Certificate of International Accounting, Intouch Training Center, Vientiane, Laos

Jul 2010 – Sep 2010 Certificate of Lao Accounting, Intouch Training Center, Vientiane, Laos

Sep 2005 – Nov 2008 Higher Diploma of English Teacher at Khamphy Institute of Information and Communication Technology (KPIT), Vientiane, Lao PDR

Sep 1999 – Nov 2004 Bachelor of Pharmacy, Department of Pharmacy, Faculty of Medical Science, National University of Laos

Sep 2004 – Oct 2004 Training Course in Office Technologies and Internet Applications (Microsoft Windows-XP, Microsoft office-XP, Internet Technologies E-Governance & Front Pages-XP) at TATA InfoTech Ltd, New Delhi, India

Employment record relevant to the assignment:

Period	Employing organization and your title/position. Contact information for references	Country	Summary of activities performed relevant to the Assignment
Mar 2013 – Present	<p>Administrative and Finance Officer for Urban Basic Services Sector (UBSS), United Nations Human Settlement Programme (UN-Habitat).</p> <p><i>Reference:</i> Dr. Avi Sarkar, Regional Advisor - South-East Asia, UBS Head of Office, Lao PDR UN-Habitat avi.sarkar@un.org</p>	Laos	Responsible for the all administrative and Finance related to the regional office; work closely with Programme Manager, HQ to resolve queries and ensure that all administrative and finance matters run smoothly; Liaise with UNDP on administrative and finance matters; arrange appointment for the Regional Advisor – South-East Asia; making travel arrangements for UN-Habitat; organize meeting, seminars, workshops and conferences; Process Passport and visa extensions; manage petty cash expenses and reporting; follow up with partners on

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	Tel: +856.21.267707; Fax:+856.21.264939; Mobile: +856 20 5555 5654		financial management and reporting and assist the Regional Advisor SEA regarding the day-to-day running of the regional office.
Mar 2007 – Feb 2013	Office Assistant for Mekong Region Water and Sanitation	Laos	Responsible for administrative, assist the Regional Chief Technical Advisor regarding the day-to-day running of the regional office; liaise with UNDP on

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	<p>Initiative (MEK-WATSAN), UN-Habitat</p> <p>Reference: <i>Dr. Avi Sarkar,</i> <i>Regional Advisor - South-East Asia, UBS Head of Office, Lao PDR UN-Habitat</i> avi.sarkar@un.org Tel: +856.21.267707; Fax:+856.21.264939; Mobile: +856 20 5555 5654</p>		<p>administrative matters; managing the procurement processes; arrange appointment for the CTA; making travel arrangements for UN-Habitat; organize meeting, seminars, workshops and conferences; maintain attendance, leave records, and monthly leave reports; summarize monthly petty cash expenses for WAC and MEK-WATSAN; passport processing and visa extension.</p>
<p>Jan 2005 – Feb 2007</p>	<p>Researcher for the Research Institute of Science, Science and Technology Agency, Prime Minister’s Office.</p>	<p>Laos</p>	<p>Responsible for research on plants tissue culture and extraction of chemical material from Natural Products and analyze products for quality control of natural products for promotion and development.</p>
<p>Nov 2004</p>			

Language Skills (indicate only languages in which you can work):

- Lao – Native - Professional Working Proficiency
- English – Professional Working Proficiency
- Thai - Professional Working Proficiency

Adequacy for the Assignment:

Detailed Tasks Assigned on Consultant’s Team of Experts:	Reference to Prior Work/Assignments that Best Illustrates Capability to Handle the Assigned Tasks
{List all deliverables/tasks in which the Expert will be involved)	
<p>ACTIVITY 1</p> <p>Inception Report</p> <p>Inception meeting</p> <p>National multi-hazard risk assessment report</p> <p>Training to PHO focal points on data entry</p> <p>Data collection at district level</p> <p>ACTIVITY 2</p> <p>Inception meeting</p> <p>Pilot test. Field data collection in 3 target provinces</p> <p>Lao PDR Hospital Safety Index</p> <p>Develop a national road map and training materials</p> <p>Conduct capacity building workshops for the targeted Provinces</p>	<p>Highly experienced in meeting/workshops arrangements for almost 20 years.</p> <p>Highly experienced in logistics planning and coordination with provincial and district levels.</p>




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Expert's contact information: (e-mail vilaysouk.ounvongsai@un.org, phone:+85620 22226006)

Certification:

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes myself, my qualifications, and my experience, and I am available, as and when necessary, to undertake the assignment in case of an award. I understand that any misstatement or misrepresentation described herein may lead to my disqualification or dismissal by the Client, and/or sanctions by the Bank.

Vilaysouk Ounvongsai		09.12.2022
Name of Expert	Signature	Date
Dr. Avi Sarkar		09.12.2022
Name of Representative of the Consultant (the same who signs the	Signature	Date



CURRICULUM VITAE (CV)

Position Title and No.	Data management specialists/Hazard risk expert
Name of Expert:	Juan Antonio Torres
Date of Birth:	01/09/1978
Country of Citizenship/Residence	Spain

Education: {List college/university or other specialized education, giving names of educational institutions, dates attended, degree(s)/diploma(s) obtained}

- MSc in Geographic Information Systems - University of Girona - Spain
- MSc in International Cooperation for Development - University of Basque Country UPV/EHU - Spain
- BSc in Psychology - University of Basque Country UPV/EHU - Spain

Employment record relevant to the assignment: {Starting with present position, list in reverse order. Please provide dates, name of employing organization, titles of positions held, types of activities performed and location of the assignment, and contact information of previous clients and employing organization(s) who can be contacted for references. Past employment that is not relevant to the assignment does not need to be included.}

Period	Employing organization and your title/position. Contact information for references	Country	Summary of activities performed relevant to the Assignment
2018-2022	UH-Habitat Lao PDR (Information Management Specialist) Avi Sarkar avi.sarkar@un.org	Lao PDR	- National climate change vulnerability assessment. - National Covid-19 vulnerability assessment. Performing georeferenced data collection, analysis, and visualization according to the program needs. Integrating and managing geographical data from different sources. Producing high quality cartographic products.
2020	PLAN Lao PDR (Information Management Specialist) Jun Redden jen.redden@plan-international.org	Lao PDR	Health Centers Assessment on MCH in Saravan and Oudomxay province. Supervising and monitoring data collection and performing the analysis of resulting data.



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2016 - 2018	REACH (GIS Specialist) Jeremy Wetterwald jeremy.wetterwald@impact-initiatives.org	Ukraine	Preparation, maintenance, and provision of geographic information products regarding the IDP in Eastern Ukraine. Providing GIS and remote sensing services that address the needs of the humanitarian community.
2015-2019	UN-Habitat Lao PDR (Information management Specialist) Avi Sarkar avi.sarkar@un.org	Lao PDR	Climate change Vulnerability assessment on 189 villages in Sekong, Saravane and Attapeu in the framework of a climate change adaptation project funded by Adaptation Fund. Performing georeferenced data collection, analysis and visualization according to the program needs. Integrating and managing geographical data.

Membership in Professional Associations and Publications:

Language Skills (indicate only languages in which you can work): English and Spanish

Adequacy for the Assignment:

Detailed Tasks Assigned on Consultant's Team of Experts: Capacity building and coordination of government stakeholders at national and subnational level Design of online data collection and monitoring systems Digitalization of data collection Tools Multi-hazard analysis Data Analysis and integration of spatial component	Reference to Prior Work/Assignments that Best Illustrates Capability to Handle the Assigned Tasks National Climate change Vulnerability Assessment. National Covid-19 vulnerability assessment Health Centers Assessment on MCH Climate Change Vulnerability Assessment - AF
Design data collection Tools Adaptation to the Lao context of the Hospital Safety Index Design the data collection systems Monitor the data collections Adapt training materials to the Lao context Participating in the capacity building workshop	National Climate change Vulnerability Assessment. National Covid-19 vulnerability assessment Health Centers Assessment on MCH Climate Change Vulnerability Assessment - AF

Expert's contact information: (e-mail juan.perez1@un.org, +34 657739690



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Certification:



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Juan Antonio Torres	28/11/2022	
Name of Expert	Signature	Date
Avi Sarkar	28/11/22	
Name of authorized Representative of the Consultant (the same who signs the Proposal)	Signature	Date

CURRICULUM VITAE (CV)

Position Title and No.	5. Climate Change and Hazard Risk
Name of Expert:	Heather Robertson
Date of Birth:	16/09/1963
Country of Citizenship/Residence	New Zealand

Education:

MA (First class honours) in Development Studies 2013, University of Auckland, Auckland Postgraduate Diploma (Distinction) in Development Studies 2011, University of Auckland, Auckland Diploma of Teaching 1991, Christchurch College of Education, Christchurch

BA in Social Anthropology and Linguistics 1984, University of Auckland, Auckland

Employment record relevant to the assignment: {Starting with present position, list in reverse order. Please provide dates, name of employing organization, titles of positions held, types of activities performed and location of the assignment, and contact information of previous clients and employing organization(s) who can be contacted for references. Past employment that is not relevant to the assignment does not need to be included.}

Period	Employing organization and your title/position. Contact information for references	Country	Summary of activities performed relevant to the Assignment
Sept 2021 - present	UN-Habitat: Climate Change and Environment Specialist Reference: Dr. Avi Sarkar, Regional Advisor - South-East Asia, UBS Head of Office, Lao PDR UN-Habitat avi.sarkar@un.org Tel: +856.21.267707	Lao PDR	Write inception reports, progress reports, questionnaires. Carry out desk reviews of government and other institutional literature.
Feb – April 2021	UN-Habitat: Evaluation Consultant Reference: Dr. Avi Sarkar, Regional Advisor - South-East Asia, UBS Head of Office, Lao PDR UN-Habitat avi.sarkar@un.org Tel: +856.21.267707	Lao PDR	Carried out the final evaluation of a shelter project which was part of the recovery from devastating floods in Laos in 2018.
Mar 2015– Jan 2016	UN-Habitat: Sustainability Check Consultant	Lao PDR, Vietnam and Cambodia	Designed the methodology and carried out research to determine the sustainability of a water and sanitation project; reported to donor

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Dec 2014 – Aug 2015	Mekong Business Management Consultants: Programme Director	Lao PDR	Responsible for liaising with partners.
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			Managed data collection in rural Laos for a project evaluation
Feb – Nov 2014	Nampapa Savannakhet: Consultant	Lao PDR	Prepared a successful proposal for the Nordic Climate Facility Designed data collection on consumer rights and water tariffs; analysed the results and presented them to utility and government stakeholders Trained local officials on consumer rights and water tariffs
Dec 2013	UN-Habitat: Consultant	Lao PDR	Consulted with local stakeholders, authorities and utilities to determine the requirements for disaster risk management, wrote needs assessment for a DIPECHO funding proposal for a project in Laos
Aug 2012 – Jan 2013	Nampapa Attapeu: Consultant	Lao PDR	Managed data relating to human values-based water, sanitation and hygiene education (HVWSHE), participated in and wrote proceedings of a global-level expert group meeting for HVWSHE

Membership in Professional Associations and Publications:

Language Skills (indicate only languages in which you can work): English, Te Reo Māori

Adequacy for the Assignment:

Detailed Tasks Assigned on Consultant’s Team of Experts:	Reference to Prior Work/Assignments that Best Illustrates Capability to Handle the Assigned Tasks
{ List all deliverables/tasks in which the Expert will be involved)	
<p>ACTIVITY 1</p> <p>Inception Report</p> <p>Questionnaire structure, survey, translation, code into KoboToolbox</p> <p>Desk review on institutional and legislative framework</p> <p>ACTIVITY 2</p> <p>Inception Report</p>	<p>Experience in writing inception reports</p> <p>Have written questionnaires and surveys</p> <p>Conducted numerous desk reviews in Lao PDR</p> <p>Have developed training materials and educational programmes.</p> <p>Conducted capacity building workshops.</p>



Proposal Forms

Inception meeting	
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Proposal Forms

<p>Report on questionnaire structure, survey and Kobo toolbox code</p> <p>Questionnaire structure, survey, translation, code into KoboToolbox</p> <p>Hospital safety assessment report</p> <p>Desk review on existing hospital safety assessment practice</p> <p>Hospital Safety Index questionnaire adaptation to the Lao context</p> <p>Pilot test. Field data collection in 3 target provinces</p> <p>Data analysis</p> <p>Lao PDR Hospital Safety Index</p> <p>Develop a national road map and training materials</p> <p>Conduct capacity building workshops for the targeted Provinces</p>	
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Expert's contact information:

E-mail
heather.robertson@un.org Phone
 2052320832... ..)

Certification:

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes myself, my qualifications, and my experience, and I am available, as and when necessary, to undertake the assignment in case of an award. I understand that any misstatement or misrepresentation described herein may lead to my disqualification or dismissal by the Client, and/or sanctions by the Bank.



09/12/22

Heather Robertson

Name of Expert

Signature

09/12/2

Avi Sarkar



Name of authorized

Signature

Date

Representative of the Consultant (the same who signs the Proposal)



CURRICULUM VITAE (CV)

Position Title and No.	GIS and Information Management
Name of Expert:	Thatsanee Sanouban (Mr)
Date of Birth:	04/07/1995
Country of Citizenship/Residence	Laos

Education:

A Master of Geographic Information Science (GIS), Victoria University of Wellington, New Zealand (Feb 2020 – Feb 2021)

A Bachelor of Science in Geography and Geomatics, Department of Geography and information, National University of Laos, Vientiane Lao PDR (Sep 2013 – Sep 2017)

An exchange student at the Communication Department, University of Indonesia, Indonesia funded bySHARE (EU) scholarship (January 2017 – May 2017)

Employment record relevant to the assignment:

Period	Employing organization and your title/position. Contact information for references	Country	Summary of activities performed relevant to the Assignment
August 2022 – Present	<p><i>National GIS Expert and Capacity Building (August 2022 – Present), UN-Habitat Lao PDR</i></p> <p>Reference: Dr. Avi Sarkar, Regional Advisor - South-East Asia, UBS / Head of Office, Lao PDR / UN-Habitat avi.sarkar@un.org Tel: +856.21.267707; Fax:+856.21.264939; Mobile: +856 20 5555 5654</p>	Laos	<ul style="list-style-type: none"> ▪ Supporting the capacity building of NPSE-Savannakhet and government partners, preparation of workshops and trainings on GIS and other related topics; ▪ Designing, and conducting capacity development trainings on GIS and other related topics as planned and required by the project and NPSE-Savannakhet; ▪ Create and prepare capacity building materials on GIS and/or related topics both in Lao and English; ▪ Contributing GIS expertise and providing professional advisory services to NPSE-Savannakhet during project implementation;

Annex 2: Proposal Forms

		<ul style="list-style-type: none">▪ Contributing to monitoring, reporting, knowledge management, administrative process and coordination between NPSE-Savannakhet and other implementing partners
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<p><i>April 2021 – August 2022</i></p>	<p>Spatial/Land Planning Advisor, The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), Vientiane, Lao PDR.</p> <p>Reference: <i>Mrs Eva Prediger, Team Leader Land Management, Enhanced Land Tenure Security Project, GIZ.</i> eva.prediger@giz.de +85620 55574572</p> <p><i>Mr. Sangthong Phatsalin Senior Land Use Planning Advisor, santhong.phatsalin@giz.de +85620 55800676</i></p>	<p>Laos</p>	<p>Key tasks:</p> <p>1. Advising the partner institution(s)</p> <ul style="list-style-type: none"> ▪ supervises and monitors the development and implementation of component plans and activities in close consultation with counterparts ▪ advise the management of the partner institutions in terms of operations planning, finance management and monitoring ▪ develops and implements strategies for improving efficiency and effectiveness of tasks-related processes at the partner institutions ▪ develops, prepares and conducts relevant training measures ▪ contributes to preparing and implementing coordination processes and joint activities between programme components ▪ deals with the design, preparation and implementation of workshops, seminars and other events on issues connected with the component’s area of activity ▪ develops and organises quality assurance measures and suggests necessary changes, improvements and initiatives ▪ providing the development of new concepts for the monitoring of PLUP/PALM, Targeted Awareness Raising curricula and materials and usage of drones within Participatory Land Use Planning and Agricultural Management <p>2. Networking and cooperation</p> <ul style="list-style-type: none"> ▪ deals with cooperation, regular contact and dialogue with partners, assists with PR work and cooperates with local communities, relevant organisations, non-governmental agencies and individuals in the programme environment and with other projects to
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		<p>improve and maintain good working relationships</p> <ul style="list-style-type: none"> ▪ communicates local interests and efforts, forwards these and encourages sharing ideas <p>and information for the benefit of the programme</p> <p>3. Knowledge management</p> <ul style="list-style-type: none"> ▪ ensures knowledge transfer to programme information ▪ develops ready-to-use strategies and technical concepts, including guidelines, manuals <p>and procedures in close cooperation with the partner institution</p> <ul style="list-style-type: none"> ▪ draws up reports and presentation documents ▪ prepares appropriate input for various programme reports including annual reports, and <p>contributes to the other reports required by the programme manager and GIZ Head Office</p> <ul style="list-style-type: none"> ▪ provides significant contributions to research initiatives relevant for the programme and in particular the land management components <p>4. Coordination tasks</p> <ul style="list-style-type: none"> ▪ works with general project planning and develops project concepts including preparation, organisation and moderation of planning exercises and their implementation, management, monitoring, quality management, evaluation, communication and documentation ▪ coordinates relevant project activities at local level in consultation with the component manager and in cooperation with the partners, both in regards to implementation and preparing organisational aspects ▪ compiles the relevant information for joint activities and assignments
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<p>July 2020 – October 2020</p>	<p><i>A GIS Intern at the Department of Conservation (DOC), National Office, Wellington, New Zealand.</i></p> <p>Heather Campbell <i>GIS Analyst, National Office, Wellington, New Zealand.</i> hecampbell@doc.govt.nz</p>	<p>New Zealand</p>	<p>Key tasks:</p> <ul style="list-style-type: none"> ▪ Spatial data management of DOC’s marine data inventory. ▪ Working with historical vegetation maps in Waipapa region, New Zealand. ▪ Support Natural Heritage Fund (NHF) project. ▪ Support Hazardous Activities and Industries List (HAIL) Project.
<p>Jan 2019 – Jan 2020</p>	<p><i>Project Officer “Secure Access to Land and Resources” project, UN-Habitat.</i></p> <p>Reference: <i>Dr. Avi Sarkar,</i> <i>Regional Advisor - South-East Asia, UBS Head of Office, Lao PDR UN-Habitat</i> avi.sarkar@un.org <i>Tel: +856.21.267707;</i> <i>Fax: +856.21.264939; Mobile: +856 20 5555 5654</i></p>		<ul style="list-style-type: none"> ▪ Support and monitor the implementation of the project in the target provinces: Luangprabang & Xiengkhouang. ▪ Act as the focal person of the Global Land Tools Network based in Laos and coordinate with stakeholders. ▪ Report and liaise regularly with both partners and stakeholders in Laos and those based in the headquarter. ▪ Lead training on GPS, QGIS, and STDM (Social Tenure Domain Model) for partners and officials in the target districts. ▪ Provide technical support regarding the land survey, GIS, GPS, and satellite imagery.
<p>September 2017 – December 2018</p>	<p><i>Land Office)</i> <i>Burapha Agroforestry Co., Ltd, A Swedish Company Based in Vientiane Lao PDR.</i></p> <p>Reference: Thanousin Panyavone Land Survey Supervisor, Burapha Agroforestry., co, ltd (Laos) Mobile: +85620 5945 1025 Email: Thanousin.panyavone@buraphawood.com</p>	<p>Laos</p>	<ul style="list-style-type: none"> ▪ Liaise and work closely with villagers and authorities: DAFO, DONRE, PAFO & PONRE, Justice office & administration office regarding land survey, land lease, concession and village cooperation contracts for planting industrial woods in Xayaburi & Vientiane province. ▪ Land Survey and Mapping ▪ Land demarcation database and land document management. ▪ Prepare reports for the survey teams and other departments when required

Language Skills

- Lao – Native - Professional Working Proficiency
- English – Professional Working Proficiency
- Thai - Professional Working Proficiency

Adequacy for the Assignment:



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Detailed Tasks Assigned on Consultant’s Team of Experts:	Reference to Prior Work/Assignments that Best Illustrates Capability to Handle the Assigned Tasks
<p>ACTIVITY 1</p> <p>Questionnaire structure, survey, translation, and code into KoboToolbox.</p> <p>Design the data collection monitoring Tool</p> <p>Data analysis</p> <p>Data collection at district level</p> <p>National multi-hazard risk assessment report</p> <p>Training to PHO focal points on data entry</p>	<p><i>The development of community questionnaires design for collecting and analyzing Land data at Burapha agroforest company using Kobo toolbox 2017-2018.</i></p> <p><i>The development of participatory Land Use Planning and Participatory Agricultural Land Management (PLUP/PALM) Monitoring tools using Kobotool box and Remote Sensing 2021-2022.</i></p> <p><i>Completed a paper on R programming for Data Science at the Victoria University of Wellington.</i></p> <p><i>Drought and Flooding Risk Assessment for Savannakhet Province Using GIS techniques – University Thesis 2017</i></p> <p><i>Estimation of Forest Loss from wildfire disaster in Louangnamtha province 2020.</i></p> <p><i>GIS training, PLUP/PALM training and PLUP/PALM monitoring tool training to district and provincial levels in Houaphan, Xayaburi, Vientiane Provinces 2020 – 2022.</i></p>
<p>ACTIVITY 2</p> <p>Inception Report</p> <p>Inception meeting</p> <p>Report on questionnaire structure, survey and Kobo toolbox code</p> <p>Questionnaire structure, survey, translation, code into KoboToolbox</p> <p>Pilot test. Field data collection in 3 target provinces</p> <p>Data analysis</p> <p>Develop a national road map and training materials</p> <p>Conduct capacity-building workshops for the targeted Provinces</p>	<p><i>Experienced in conducting and writing a research proposal, report and findings in 2020.</i></p> <p><i>Completed a paper on R programming for Data Science at the Victoria University of Wellington.</i></p> <p><i>Experienced conducting capacity several capacity building WS related to GIS, Land Use planning, etc.</i></p>

Expert’s contact information: (e-mail Thatsanee669@gmail.com, phone +8562078170055)

Certification:

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes myself, my qualifications, and my experience, and I am available, as and when necessary, to undertake the assignment in case of an award. I understand that any misstatement or misrepresentation described herein may lead to my disqualification or dismissal by the Client, and/or sanctions by the Bank.

Proposal Forms

Thatsanee
Sanouban


Signature

09 Dec 2022

Dr. Avi Sarkar



09 Dec 2022

Name of authorized
Representative of the Consultant (the same who signs the Proposal)

Signature

Date



CURRICULUM VITAE

- 1 **NAME** : **Buahom SENGKHAMYONG**
- 2 **DATE OF BIRTH** : February 6, 1956
- 3 **NATIONALITY** : Lao
- 4 **PERSONAL ADDRESS** Ban Phontongsawath, Unit 24 House No. 393, Chanthabouly District,
Vientiane Capital, Lao PDR.
- 5 **OFFICE ADDRESS** **UN-Habitat in Lao PDR**
3rd Floor, UN House, Lane Xang Avenue,
P.O. Box 345, Vientiane Lao PDR
+856 21 267714/+856 21 264939;
buahom.sengkhamyong@undp.org
- TELEPHONE/FAX**
- EMAIL ADDRESS**
- 6 **EDUCATION** : 1990 **Master of Sciences in Urban Infrastructure Engineer**,
Leningrad Institute of Civil Engineering (LICE, Russia)
1987 **Master of Sciences in Urban Planning**,
Leningrad Institute of Civil Engineering (LICE, Russia) 1984
Master of Sciences in Architecture,
Leningrad Institute of Civil Engineering (LICE, Russia) 1976
Bachelor of Architecture
École Supérieure des Beaux Arts (Montpellier, France)
- 7 **OTHER TRAINING** : 1991 Training course on Project Management using CAD (Computer
Aided Design), (Moscow, Russia)
1992 Training course on Airports Design particularly in Terminal Building and
Major Facilities (Moscow, Russia)
1994 Study Tour on “ Rural Development with emphasis on local Material
of construction for Housing in rural areas”, organized by Village Foundation
(Bangkok, Thailand)
1999 Training course on the use of Softdesk Civil /Survey
Engineering Design” for Road and Drainage Design organized by
Pesik International Co., Ltd.(Thailand)
2000 Training course on Heritage and Urban Development Strategy
Vientiane, Lao PDR
2001 Training course on Water Supply Engineering
Supply and Sewage Systems, Project Management in Lao PDR 2002
Attended several short-Training courses in the fields of Water
Supply and Sewage Systems, Project Management in Lao PDR 2004
Training course on Construction Industry Know-how Transfer
Project Management in Lao



Skill of PC Computer:

- AutoCAD / SketchUP
- Softdesk Civil / Survey Engineer Design
- Mapinfo
- Adobe Photoshop.
- Microsoft Office (MS Word/MS Excel/MS Access & Ms Power Point)
- Visual Basic.

**8 LANGUAGE & DEGREE OF
PROFICIENCY**

: Lao:	Mother Tongue
English:	Fluent
French:	Fluent
Russian	Fluent



9 MEMBERSHIP IN PROFESSIONAL

SOCIETIES : Lao Association of Architecture and Civil Engineer

10 COUNTRIES OF WORK EXPERIENCE : Russia, Lao PDR

11 EMPLOYMENT RECORD

FROM: 2008 EMPLOYER	TO:	Present Urban Basic Services Branch United Nations Human Settlement Programme (UN-Habitat) in Vientiane, Lao PDR
POSITION HELD AND DESCRIPTION OF DUTIES		Chief Technical Advisor Responsible for activities related to Adaptation Fund projects, Water for Asian Cities (WAC), Mekong Region Water and Sanitation Initiative (MEK-WATSAN) and Disasters/Emergency Response Program of UN-Habitat including:

Community-based on Water and Sanitation (2008-2013): Monitor and follow-up the implementation of nineteen (19) Water and Sanitation-related projects under the WAC and MEK-WATSAN initiative in eight (8) different provinces in Lao PDR. All of the projects have already been completed. The projects were bring 24 hours water supply to an estimated 68,000 people and improved sanitation to about 55,000 people from poor households. The types of projects that are being implemented in Lao PDR include a number of community-based water supply and sanitation initiatives, including establishing / extending / rehabilitating water supply and sanitation networks in secondary towns. As well as providing improved access to water and sanitation, the project aims is to build capacity among the inhabitants of the target villages. This is achieved through initiatives such as training local artisans to build and maintain latrines.

Coordinated and worked with several partners in Lao PDR in these programme: Nam Papa State-owned Enterprises (NPSEs – provincial water supply authorities), The Department of Statistics (DOS) of the Lao PDR, GRET (a French NGO) and the WTTC (Waterworks Technical Training Centre).

Disasters /Emergency Works

Mekong floods (2008): During heavy rainfall in the Northern provinces in early August 2008, causing the Mekong River and many of its tributaries to flood their banks. This caused the contamination of wells, and residents in the affected areas were forced to rely on bottled water for drinking purposes. It was also reported that untreated water was used for drinking and other purposes such as washing, posing a health risk for over 80,000 people. Responsible from UN-Habitat with the Department of Housing and Urban Planning (DHUP) under MPWT implemented the emergency water and sanitation assistance to communities affected by flooding in five (5) provinces of Lao PDR, namely Huaphan, Luang Prabang, Sayabouly, Bolikhamxay and Khammouane.

Typhoon Ketsana (2009): On 29 September 2009, Typhoon Ketsana hit southern Laos, sweeping through Attapeu, Sekong, Saravane, Savannakhet and Champassack Provinces before exiting the country. Several villages located along the Sekong River in Sekong Province were washed away and many areas were affected by landslides. Responsible from UN-Habitat with NPSEs-Saravane, Sekong and Attapeu involved rehabilitating water and sanitation infrastructures that were affected by the floods. These efforts reached out to nearly 50,000 people through repair and restoration water treatment plants and repair of systems such as water networks, sanitation facilities, solid waste management, sewerage drainage system and hygiene and sanitation awareness campaigns in affected urban and peri-urban areas in 3 southern provinces (Saravane, Sekong & Attapeu). The emergency assistance ensured safety of the people, especially women and children, through resumption to normalcy of safe water supply and sanitation infrastructure.

Tropical Storm Nock-ten (2011): During Nock-ten storm 2011, nearly 350 latrines and dug wells damages in Nock-ten storm involved with NPSE-Khammouane to rehabilitate or new ones built in the 51 affected villages in Sebangfai town of Khammouane province using the **build Back Better (BBB)-principles**. **Shelters:** Major rehabilitation and construction work with BBB- principles was carried out for six demonstration houses in 5 villages and almost 50 local carpenters had been trained on **“BBB- principles”**. Assisted also the project to distribute the hygiene kits and emergency housing materials to flood-affected communities.

Climate Change resilience

Developed the Building Back Better (BBB) designs and guidelines for water, sanitation and shelter Raising awareness of BBB at national and local level, including communities Implementing a pilot project that demonstrated the benefits of BBB in disaster

response and making vulnerable communities more resilient. Establishing strong relationships with the PDMC and other provincial-level mechanisms.

Adaptation Fund Project (2017-2022): The project's main objective is to enhance the climate and disaster resilience of the most



vulnerable rural and emerging urban human settlements in Saravane, Sekong and Attapeu Lao PDR by increasing sustainable access to basic infrastructure systems and services, emphasizing resilience to storms, floods, droughts, landslides and disease outbreaks. To archive this, the project has four (4) components: (i) institutional strengthening to reduce vulnerability in human settlements, (ii) building capacity at the community and human settlement level for climate resilience, (iii) enhance climate and disaster resilient infrastructure systems in human settlements and (iiii) knowledge management, advocacy and monitoring.

As Team leader of operations/Infrastructure Engineer, planning, monitor and follow-up the implementation of 189 sub-projects in 8 Districts of 3 Provinces. These eight selected districts belong to the 40 poorest districts out of 141 that were identified as very poor and high priority by the National Growth as per census 2015. During rapid assessment data collected at district level further indicates that: (i) about 50% of Phouvong households are poor; (ii) over two-thirds of households in the other districts live below the poverty line; and (iii) in Ta Oi and Samuoi, all of the villages are poor. With the exception of Phouvong, all the target districts are upland districts, where the rural poor are confronted to additional constraints resulting from remoteness and isolation. They are home to a diversity of ethnic groups, who live in small, scattered settlements, and have limited connections to the main road networks and to social services, including water and sanitation. Isolation is further reinforced by lower education, illiteracy and a lack of Lao language skills. Several physical infrastructures of the "Pilot on climate resilient water infrastructure" in Attapeu, Sekong and Saravane provinces including new small-scale water infrastructure using solar pump, new gravity feed system with slow sand filtration tank and new 24/7 small-scale water supply with distribution network and household water meter connection in rural areas were the sub-projects completed in 147 villages with total beneficiaries of 96,867 people which 48,899 women.

FROM: 1995	TO: 2007
EMPLOYER	SMED / SDC
POSITION HELD	Urban Planner, Airport Architect, Municipal Management Advisor and Urban Infrastructure Engineer
AND DESCRIPTION OF DUTIES	<ul style="list-style-type: none"> • Mekong Tourism Development Project (ADB Loan), Deputy Team Leader / Airport Architect from August 2004 to November 2006: • Technical Assistance for Capacity Building of Vientiane Urban Development and Administration Authority (VUDAA), AFD Deputy Team Leader / Urban Planner from 15 November 2002 to July 2004. and Deputy Team Leader / Municipal Management Advisor from August 2004 to December 2006. • Secondary Towns Urban Development Project (ADB Loan), Deputy Team Leader / Infrastructure Engineer from February, 2000 to November 2002 and Urban Planner / Conservation Advisor from November 1999 to January 2000. • Lao Land Titling Project (World Bank) Deputy Team Leader / Architect, from October 1998 to August 1999. • Rehabilitation and extension of the Water Supply of Luang Prabang (KfW, Germany) Water Supply Engineer, from February 1997 to April 1997. • Lao Airport Improvement Project (ADB Loan), Deputy Team Leader / Airport Architect, from March 1995 to December 1996. • Thakhek Water Supply Project (European Union) Water Supply Engineer, from November 1993 to April 1994.



FROM: 1992

TO: 1993

EMPLOYER

Leningrad Department of Housing and Urban Planning,
(LENDHU – Russia)

POSITION HELD

Urban Planner

**AND DESCRIPTION OF
DUTIES**

Assisted LENDHU on the **Feasibilities Study of the Rural Water Supply Project** (Community Water and Sanitation Division) .

FROM: 1990

TO: 1992

EMPLOYER Leningrad Department of Civil Airport, LDCA - Russia.

POSITION HELD **Airport Architect**
AND DESCRIPTION OF DUTIES Assisted the LDCA on the Survey/Design of
 New domestic terminal building for TOSHNO – AIRPORT financed by LENMINFIN
 – RUSSIA.

FROM: 1988 **TO:** 1990
EMPLOYER Lypisk Department of Housing and Urban Planning (LDHU – RUSSIA)

POSITION HELD **Urban Planner**
AND DESCRIPTION OF DUTIES Assisted the LDHU on the Preparation of Master Plan of Dobrinka - Lipiskaya obl.
 (660.000 inhabitants) Financed by LIPISKMINFIN – RUSSIA.

12 DETAILED TASKS ASSIGNED **WOR UNDERTAKEN WHICH BEST ILLUSTRATES CAPABILITY TO UNDERTAKE THE S TASKASSIGNED**

Project **Technical Assistance for Capacity Building of Vientiane Urban**
Development and Administration Authority (VUDAA), AFD

Locaton Vientiane, Lao PDR

Date August 2004 to December. 2006

Position **Deputy Team Leader / Municipality Management Advisor**



Duties Work as Deputy Team Leader / Municipality Management Advisor to provide consulting services and assist VUDAA in project implementation.

- Assist the Team Leader to assess the organizational arrangements of VUDAA in relation with its current and mandated responsibilities, functional efficiency, internal accountabilities, and affordability;
- To reinforce the Human Resources and Urban Management Capacity of VUDAA, to upgrade its performance quality regarding the provision and maintenance of Municipality services, Urban Management, Environmental protection, Preservation of Culture Heritage, Financial resources and Urban Governance in order to become an Autonomous Municipal Authority by 2007.
- To review roles and responsibilities of divisions and the existing job descriptions and job specifications of individuals within VUDAA;
- To cooperate with VUDAA executive, develop a justified and realistic case for a phased organizational development plan, including a staffing plan, and improved and simple internal procedures;
- To assist VUDAA in seeking the approval of the appropriate authority to the new arrangements;
- To assess the need for and, if feasible, develop a computerized information system,
- To assist in the implementation of the short- to medium-term organizational development plan involving gradual improvements to existing VUDAA organizational arrangements, staffing and internal procedures, including support to VUDAA to convert the status of contractual staff to that of permanent staff.
- To cooperate with human resources development experts, develop orientation sessions and other necessary training to gain support for and enable the use of new systems.

Time Spent 29 months

Project	Technical Assistance for Capacity Building of Vientiane Urban Development and Administration Authority (VUDAA), AFD
Location	Vientiane, Lao PDR
Date	November 2002 to July 2004
Position	Deputy Team Leader / Urban Planner
Duties	<p>Work as Deputy Team Leader / Urban Planner to provide consulting services and assist VUDAA in project implementation.</p> <ul style="list-style-type: none"> • To establish a development control and planning capacity, including the complete design of computerized system of development control. • To assist in the revision of the zoning regulations. • To design the guided land development projects. • To reinforce development capacity in local planning. • To promote the awareness of archaeological, architectural and cultural heritage and develop a strategy and action plan for cultural heritage protection. • Assist the Team Leader in the preparation of reports



milestones studies as required by donor and according to format.

Time Spent 21 months



Project	Mekong Tourism Development Project (ADB Loan) Luang Namtha Improvement Project
Location	Luang Namtha, Lao PDR
Date	from August, 2004 to November. 2006
Position	Deputy Team Leader / Airport Architect
Duties	<ul style="list-style-type: none">• Assist in the preparation of detailed design and preparation of tender/contract documents (IS/ICB) works for new Terminal passengers building & facilities of Luang Namtha Airport. The Building works including:<ul style="list-style-type: none">- Terminal building including Control Tower (750 sq.m)- Fire & rescue building (250 sq.m)- Airfield Lighting (AFL) Power house (50 sq.m)• Assist in the preparation of Criteria to Classify Hotel and Guesthouses in Lao PDR for Mekong Tourism Development.• Assist in the preparation of Preliminary & detailed design Plates and Certificates of Lao Hotel Star Rating and Lao Guest House Champa Rating for Mekong Tourism Development Project.
Time Spent	24 months

Project	Secondary Towns Urban Development Project (STUDP), ADB Loan
Location	Luangprabang ,Thakhek, Savannakhet and Pakse Towns.
Date	from February, 2000 to November. 2002
Position	Deputy Team Leader / Infrastructure Engineer



Duties	<ul style="list-style-type: none"> ● Assist the Team Leader to advise and assist Government in the introduction of systems for improvement of urban infrastructure and environment in the field of sanitation, drainage, urban roads, flood protection and solid waste. ● Assist a Project Implementation Assistance (PIA), Capacity Building and Institutional strengthening. ● Assist in the improvement of Municipal finance services, introduction of user charges. ● Assist in the preparation of detailed design and preparation of tender/contract documents (IS/ICB) and assist the Team Leader on the overall supervision of construction works for infrastructure works in four secondary towns (Luang Prabang-World Heritage Town, Thakhek, Savannakhet and Pakse) in Lao PDR. <p>The Infrastructure works including:</p> <ul style="list-style-type: none"> - Urban road (120 km) - Primary and Secondary Drainage Channel (35 km) - Riverbank Protection works (5 km) - Flood Protection Works (12 flap gates) <ul style="list-style-type: none"> - Environmental Measures <ul style="list-style-type: none"> ● Assist in pre-qualification of construction. ● Assist in the preparation of a Project completion report following Bank format.
Time Spent	34 months
Project	Secondary Towns Urban Development Project (STUDP), ADB Loan
Location	Luangprabang ,Thakhek, Savannakhet and Pakse Towns.
Date	From February 1999 – Jan. 2000
Position	Urban Planer / Conservation Advisor
Duties	<ul style="list-style-type: none"> ● Assist in the Urban Planning and Development Control for the urban areas of Secondary Towns (Luangprabang, Thakhek, Savannakhet and Pakse). ● Using the development plans and zoning plans, assisted UDMC in establishing comprehensive planning systems for the project towns. ● Prepared inventories of buildings and other structures within the designated conservation areas. ● Defined the land use zones (residential, commercial, administration, cultural, natural, industrial, conservation, transportation, etc...). ● Assisted International Urban Planner on the formulation of regulations related to building control for secondary towns. ● Advise / assist Government in the introduction of systems for development control, conservation and protection of buildings within the designated conservation area. ● Advise and assist with the formulation of appropriate design standards for construction and maintenance of urban roads and drains.
Time Spent	12 months
Project	New Land Office Building, Lao Land Titling Project (World Bank)
Location	Vientiane, Lao PDR



Date from October 1998 to August 1999.

Position **Deputy Team Leader / Architect**

Urban Infrastructure Engineer– Buahom Sengkhamyong, Nov 2022



Duties

- Advised on land use and fill at Thakhek
- Site survey for Thakhek, Vientiane and Luangprabang
- Preparation of preliminary design and cost estimate
- Preparation of final design and tender document for New Land Office Building of Vientiane and Luangprabang.

Time Spent 11 months

Project Rehabilitation and Extension of the Water Supply of Luang Prabang, Lao PDR

(Nam Pa Pa Lao/kfw, Germany)

Location Luang Prabang, Lao PDR

Date from February 1997 to April 1997

Position **Water Supply Engineer**

Duties

- Assist the Team Leader for review existing data, plans, Reports, and studies relating to rehabilitation and extension water supply of Luang Prabang.
- Participate in the discussion with government agencies in the provincial, and other stakeholders in the project town.
- Prepare the engineer sections of preliminary design and cost estimate for rehabilitation and extension water supply of Luang Prabang.

Time Spent 3 months

Project Lao Airport Improvement Project, Loan Project, Department of Civil Aviation (DCA), ADB Loan

Location Vientiane main Airport, and other airports in Lao PDR

Date From March, 1995 to December 1996

Position **Deputy Team Leader / Airport Architect**

Duties

- Terminal Building renovation of Vientiane Airport, with respecting existing French style (built since 1965).
- New Terminal building for Pakse and Savannakhet Airports.
- New Terminal building for ten (10) minor Airports.
- After clearing zones for the runway, prepared a master plan for evacuating the existing houses (Pakse and Savannakhet Airports).

Time Spent 22 months

Project Thakhek Water Supply Project (European Union)

Location Thakhek, Lao PDR

Date from November 1993 to April 1994.

Position **Water Supply Engineer**

Duties

- Investigate and assess potential water sources.
- Assist PIU in undertaking the flow measurement and water sample collection.
- Project design at feasibility level.
- Review and make necessary change of design if needed, during the construction phase.

Time Spent 6 months

Project Leningrad Department of Housing and Urban Planning,
(LENDHU – Russia)

Location Leningrad, Russia

Date 1992-1993

Position **Urban Planner**

Duties

- Assist LENDHU on the **Feasibilities Study of the Rural Water Supply Project** (Community Water and Sanitation Division)

Time Spent 10 months

Project Leningrad Department of Civil Airport, LDCA - Russia.

Location Toshno, Leningrad, Russia

Date	1990-1992
Position	Airport Architect
Duties	<ul style="list-style-type: none">• Assist the LDCA on the Survey/Design of New domestic Terminal building for TOSHNO – AIRPORT financed by LENMINFIN – RUSSIA
Time Spent	18 months
Project	Lypisk Department of Housing and Urban Planning (LDHU – RUSSIA)
Location	Dobrinka Lypiskaya obl., Ruais
Date	1988-1990
Position	Urban Planner
Duties	<ul style="list-style-type: none">• Assisted the LDHU on the Preparation of Master Plan of Dobrinka - Lipiskaya obl. (660.000 inhabitants) financed by LIPISKMINFIN – RUSSIA.
Time Spent	21 months

13 CERTIFICATION:

I, the undersigned, certify that the statements made by me in this CV are true, complete, and correct to the best of my knowledge and brief.

Signature:



Date of Signing

28th November 20

ANNEX II

TOTAL FUNDING CEILING AND PAYMENT SCHEDULE

I. Total Funding Ceiling (in US\$)

Outputs/Activities	Total for Y1 (US\$)	Notes
Deliverable 1	41,146.20	
1. Activity 1 1.1 Deliverable 1	57,219.30	
2. Activity 2 2.1 Deliverable 1 2.2 Deliverable 2	58,569.30	
3. Activity 3 3.1 Deliverable 1 3.2 Deliverable 2	39,796.20	
Sub-Total	196,731.00	
Indirect Cost (7%)	13,771.00	Overhead cost (PSC)
Total Funding Ceiling (USD)	210,502.00	

Notes:

- (a) All lump sum amounts and totals in this table are based on the detailed estimates, including quantities and units of measurement, that are discussed and agreed with the Government and the Bank prior to the signing of the Agreement.
- (b) Under this Agreement, there can be no transfers to Government organizations.
- (c) Please indicate if any part of this Agreement is delegated to another UN organization, third party or an implementing partner(s): "No"

II. Payment Schedule

Note to Users:

1. For Agreements of short duration (for example, less than 12 months), the payment of the Total Funding Ceiling can be made in one tranche upon signature.

For Agreements of longer than 12 months duration, normally the following payments schedule is used [for exceptions, please seek advice from unagencies@worldbank.org:]

- 1st payment – [US\$.……] [normally up to 20% of the Total Funding Ceiling upon signing, as an advance payment, **if Annex I** (detailed list of activities) **and/or Annex II** (Work Plan with the breakdown of budget by deliverables and activities) **are not prepared in detail at the time of signature** and are expected to be submitted in the Inception Report. If both Annex I and Annex II are sufficiently detailed, the budget estimate shown in Annex II for the first reporting period can be used as the first lump sum payment]; and
 - Subsequent payments for deliverables set up in Annex I [shall be based on the estimates in **Annex II** and the estimates in the financial part of the preceding Progress Report (see **Annex III**)].
2. Any advance payments will be deducted from the last payment.
 3. All payments, reconciliations and refunds under this Agreement shall be made within the validity period of the Financing Agreement. Under no circumstances can payments be made after the Financing Agreement closing date.

Payment	Deliverables	Percentage	Timeline
1st Payment	Upon signing of the contract	70%	4 th week May 2023
2 nd Payment	Deliverable 1: Inception Report Deliverable 2: Report on questionnaire structures, surveys and Kobo toolbox code (Activities 1 and 2)	30%	4 th week of June 2023
	Total	100%	

ANNEX III

REPORTING REQUIREMENTS

UN-Habitat shall submit the following reports for the Deliverables agreed in **Annex I**, with a copy to the Bank:

1. If the Inception Report is used, include:

Any information missing in **Annex I** at the time of Agreement signing, detailed mobilization arrangements, complete the description of all activities required for the key deliverables, complete Work Plan to ensure timely start-up and on-time completion of the implementation of this Agreement;

2. Reports:

The following reports will be submitted: _

- Inception Report
- Report on questionnaire structure, survey and Kobo toolbox code
- National multi-hazard risk assessment report

- Hospital safety assessment report
- Report detailing SOP/Guideline for WASH during preparedness and emergency
- Report detailing distribution plan for emergency provision of water supply and sanitation

A final completion Report upon Completion or Early Termination shall include a consolidated financial summary on the use of funds for deliverables set forth in Annex I.

The authorized official of the UN Partner will provide a written statement stating the following:

“We hereby confirm to the best of our knowledge and based on the available records that the above amounts have been paid for the proper execution of the Agreement and in accordance with the terms and conditions thereof. We confirm that the share of supplies and equipment has not exceeded the share (percentage) approved for this Agreement. All documentation authenticating these expenditures has been retained by UN-Habitat in accordance with its document retention policy and will be available to UN-Habitat’s External Auditors for examination in the course of the audit of UN-Habitat’s Financial Statements.”



Signed by: _____

Name and Title: Dr. Avi Sarkar, Regional Technical Advisor, UN-Habitat Lao PDR

Date: 15/May/2023

3. Final Financial Statement:

Upon Completion or Early Termination, UN-Habitat will also provide the Final Financial Statement issued by the UN-Habitat Office of Financial Resources Management. The Final Financial Statement will be issued within three (3) months of the Completion Date. The Parties shall plan accordingly in the Work Plan (**Annex I**).

All financial reports shall be expressed in United States dollars. The UN Operational Rate of Exchange shall be used for converting expenditures made by UN-Habitat in other currencies to implement activities under this Agreement.

ANNE14

COUNTERPART STAFF, SERVICES, FACILITIES AND PROPERTY TO BE PROVIDED BY THE GOVERNMENT

The Parties recall the provisions of the Basic Agreement, including those relating to the facilities to be provided by the Government for the execution of UN-Habitat assistance, and the Parties reconfirm that the Government shall provide the facilities, exemptions, privileges and immunities provided for in the Basic Agreement.

Without prejudice to the foregoing, the Parties agree that the Government commits to provide, at its own expense and at no cost to UN-Habitat, the following inputs to facilitate successful implementation of this Agreement:

- (a) Government Staff to work on data collection
- (b) Surveys and Technical Inputs *n/a*
- (c) Services: The logistical organisation of trainings and workshops including the mobilisation of workshop participants from provinces
- (d) Funding of all trainings and workshops.
- (e) Facilities for trainings and workshops
- (f) Property *n/a*
- (g) Other *n/a*

The extent and timing of provision of counterpart staff and of facilities should be agreed upon and included in this Annex.

ANNE15

UN-Habitat FULL COST RECOVERY

1. Full cost comprises of Direct Costs (DC) and Indirect Costs (IC).

Direct Costs:

No.	Name	Status	Position	Total time input (in months)	Person-month Remuneration Rate (USD)	Amount (USD)
Team members						
1	Avi Sarkar	Part time	Team Leader	4.5	10,667	48,000
2	Phengphone Khamseanouk	Part time	Engineering /Infrastructure	7	2,571	18,000
3	Vilaysouk Ounvongsai	Part time	Operations Coordination	7	2,200	15,400
4	Juan Torres	Part time	Data management / Hazard risk expert	6	5,000	30,000
5	Heather Robertson	Part time	Climate Change and Hazard Risk	7	5,833	40,831
6	Sudha Shrestha	Part time	WASH Specialist	2	4,500	9,000
7	Health Expert	Full time	Health Expert	1	5,000	5,000
8	Kumiko Hino	Part time	Project Management	1.5	2,000	3,000
TOTAL						169,231

2. DC are UN-Habitat costs incurred for the benefit of a particular project and can be clearly identifiable and documented as directly attributable to project activities. DC calculations are shown as line items in the Total Funding Ceiling in **Annex II**.

Indirect Costs:

Category	Amount (USD)
Operational Costs	18,500
Travel	9,000
Total	27,500
PSC (7%) of Direct and Indirect Cost	13,771
Total Indirect Cost	41,271

3. IC are incurred by UN-Habitat management and administration in furtherance of UN-Habitat activities and policies and cannot be directly attributable to



ANNEX VI

project activities. Such costs are charged to project as a management fee (“Indirect Costs”). IC applicable to the Agreements with the Government that are financed from the loan, credit or grant proceeds obtained from the World Bank pursuant to the Financing Agreement between the Government and the Bank, are set up in accordance with UN-Habitat Financial Rules and Regulations, as determined in UN-Habitat cost recovery policies and procedures (*Executive Decision on Cost Recovery*) with a maximum of 7%. Any higher rate as may be justified by the circumstances of a specific Agreement shall be explained by UN-Habitat and agreed with the Government and reflected in **Annex II**.

ANNEX VII

