



ADAPTATION FUND

**REQUEST FOR PROJECT/PROGRAMME
FUNDING FROM THE ADAPTATION FUND**

**Enhancing the climate and disaster resilience of the most vulnerable
rural and emerging urban human settlements in Lao PDR**



Submitted by the

United Nations Human Settlements Programme (UN-Habitat)



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Project Summary

Lao People's Democratic Republic: Enhancing the climate and disaster resilience of the most vulnerable rural and emerging urban human settlements in Lao PDR

Project Background and Context:

The project objective is to “enhance the climate and disaster resilience of the most vulnerable human settlements in Southern Laos by increasing sustainable access to basic infrastructure systems and services, emphasizing resilience to storms, floods, droughts, landslides and disease outbreaks”. It combines a number of horizontally and vertically interrelated policy, planning and capacity development initiatives and has at its core the delivery of resilient infrastructure and services in target settlements that are characterized by a high exposure to climate hazards. It is structured around the following components:

Component 1: Institutional level strengthening to reduce vulnerability in human settlements (USD 687,640)

This component aims at building a project framework and providing hands-on tools that will allow the national governments and provincial and district authorities to identify and implement measures to increase the climate and disaster resilience of human settlements and infrastructure systems.

Component 2: Building capacity at the human settlement and community level for climate resilience (USD 200,000)

Facilitating local action planning, bringing together local authorities and communities, will provide a comprehensive resilience framework. Prioritization and alignment with the water and health related vulnerability focus of the project will also take place under this component. Further, this component aims to promote induction and adoption of change in community relations with using water resource, drainage, sanitation and health related infrastructure systems.

Component 3: Enhance climate and disaster resilient infrastructure systems in human settlement (USD 2,800,000)

This component aims at enhancing climate and disaster resilient infrastructure systems in human settlements. The results of the vulnerability assessments and the local development plans and community action plans (in which climate change priorities are integrated) will be developed which are likely to result in resilient infrastructure systems, which will be constructed in the most vulnerable/at risk settlements. Besides that, critical existing infrastructure (such as water supply systems, health clinics) most at risk will be made more resilient to climate-related disasters. Where prioritized, climate and disaster resilience of schools and other community infrastructure may be supported.

Component 4: Ensure project compliance with AF and UN-Habitat standards for knowledge Management, Advocacy and Monitoring (USD 100.000)



ADAPTATION FUND

PROJECT/PROGRAMME PROPOSAL TO THE ADAPTATION FUND

PART I: PROJECT/PROGRAMME INFORMATION

Project Category:	Regular
Country:	Lao Peoples Democratic Republic
Title of Project:	Enhancing the climate and disaster resilience of the most vulnerable rural and emerging urban human settlements in Lao PDR
Type of Implementing Entity:	MIE
Implementing Entity:	UN-Habitat
Executing Entity: ¹	Ministry of Public Works and Transport
Amount of Financing Requested:	US\$ 4.5 million

1. Project Background and Context

The problem

Climate change is a major challenge for reaching national development goals

Lao People's Democratic Republic (PDR) is one of the most climate vulnerable countries in the world, as shown by its 7th place ranking of countries affected by extreme weather events in 2013.² This is mainly due to its high dependence on climate-sensitive natural resources and its low adaptive capacity. The country has been increasingly affected by natural hazards. Floods, droughts, and storms, which often trigger secondary hazards such as landslides, fires, infestations and outbreaks of disease, cause each year loss of life and severe damage to livelihoods and infrastructure.³ Considering the expected impacts of climate change, with wet seasons getting wetter and dry seasons getting dryer, these hazards are likely to increase in frequency and intensity. This creates a major challenge for reaching national economic and social development goals.⁴

As stated in the draft 8th Five Year National Socio-economic Plan⁵, the government's main goal is to continue reducing poverty and to graduate from the Least Developed Country (LDC) Status by 2020. The government aims to accomplish this through 1) sustained, inclusive economic growth (as further discussed in the economic context section below), 2) achievement of off-track Millennium Development Goals (MDGs) through the provision and use of services that are balanced geographically and distributed equitably between social groups (as further discussed in the social context section below) and, 3) reduced effects of natural shocks as required for

¹ The UN-Habitat Lao office has a strong track record of working at community levels and has successfully mobilised community participation in planning, implementation and monitoring of its project activities. Additionally UN-Habitat will work closely with village level representatives of quasi-governmental institutions like Lao Women's Union (LWU), Lao Youth Union (LYU) and Lao National Front for Construction (LNFC) besides partnering with appropriate National Non-Profit Associations (NPA) and INGOs.

² The Climate Risk Index for 2013: the 10 most affected countries. The Global Climate Risk Index 2015 online: <https://germanwatch.org/de/download/10333.pdf>

³ Floods cause most losses in terms of both mortality and economic losses. UNISDR Global Risk Assessment 2015 and others online: <http://www.preventionweb.net/countries/lao/data/>

⁴ Lao PDR (2014, p. V) Plan of Action for Disaster Risk Reduction and Management in Agriculture (2014—2016). Online: <http://www.fao.org/3/a-at540e.pdf>

⁵ The 8th Five Year National Socio-economic Plan online: file:///Users/jorisoele/Downloads/Draft_8th_NSEDP_2016-20.pdf

LDC graduation and sustainable management of natural resources exploitation (as further discussed in the environmental context section below).

Climate change projections, expected impacts and vulnerabilities

Climate change projections

According to the IPCC (5AR), climate change projections for Lao PDR include:

- ❑ Annual mean temperatures will continue to rise by 0.1-0.3°C per decade, and the number of days with temperatures above 33°C will increase;
- ❑ The number of cooler days with temperatures below 15°C will drop by two to three per year;
- ❑ The dry season will get longer and more frequent and severe droughts
- ❑ There will be more intense rainfall events, and more frequent and severe floods; and,
- ❑ Maximum monthly flows in the Mekong Basin will increase by 35-41%, while minimum monthly flows will drop by 17-24% by 2100, further exacerbating both flood and drought risks.

Figure 1: Change (current – 2050) of average maximum daily temperature in dry season: temperatures are expected to rise in the southern provinces.

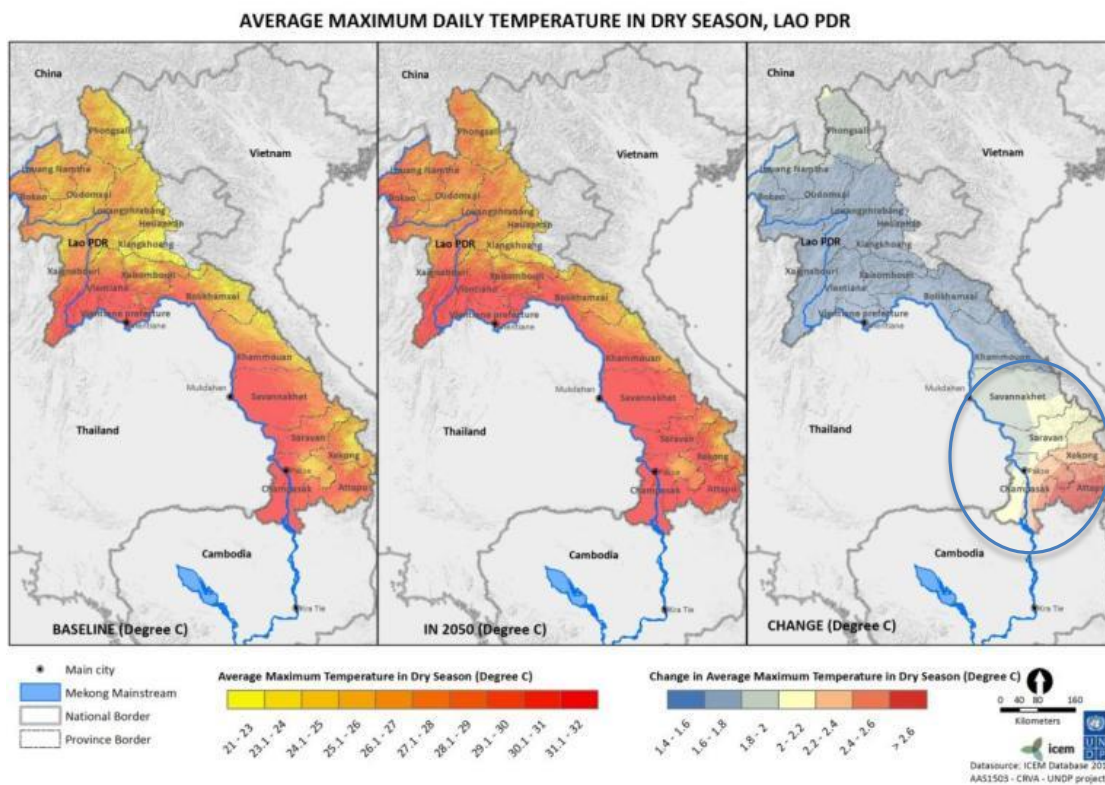


Figure 2: Change (current – 2050) in drought months: the southern provinces are expected to experience more droughts

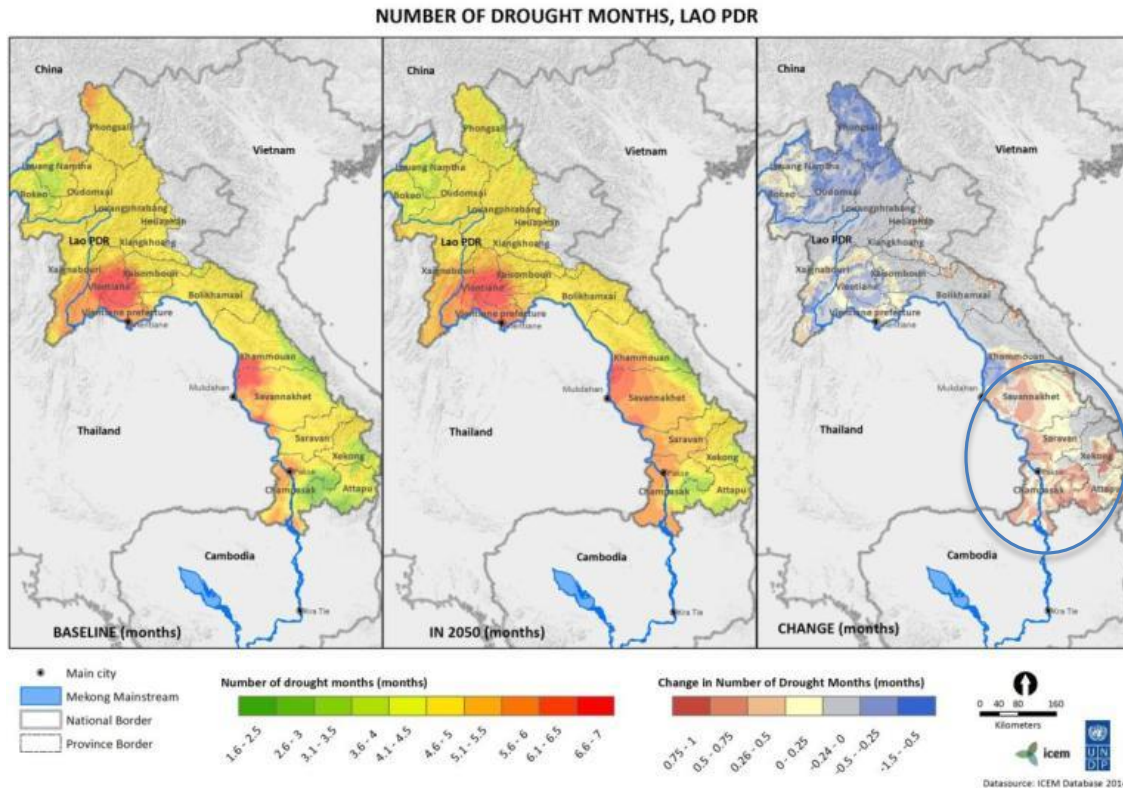
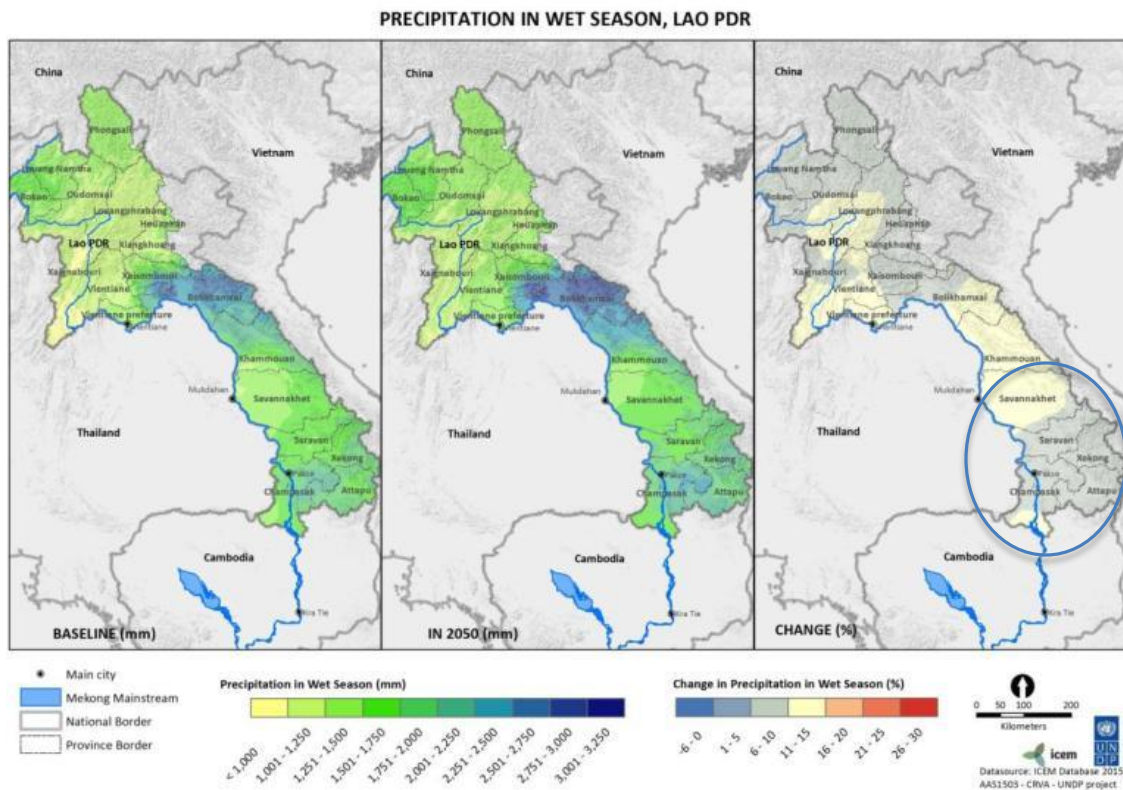


Figure 3: Change (current – 2050) in precipitation: although change in the southern provinces is relatively low, expected increase in rainfall in the north may lead to floods in the south.



Climate change projections for Lao PDR show that the southernmost provinces in particular will experience hotter temperatures, more droughts in the dry season and a slight increase in rain during the wet season. However, rainfall from the central or northern provinces leads to increased flood risks in the southern provinces.

Expected impacts

So far, population induced eco-system alterations have exacerbated climate change related droughts, floods and other related disaster risks. Since 1990 the population of Lao PDR has almost doubled. This rapid population growth is expected to continue. Given that most of the landscape is forested and mountainous, this means there is increased population pressure both on urban areas and on marginal land, much of it exposed to flooding, erosion or landslides because of proximity to rivers, deforested areas and degraded catchment areas. Related to that, floods have tended to become more severe in recent years and are expected to become even more severe in the future.⁶ If nothing is done, floods droughts and other climate related hazards will have major impacts on food security, clean water availability and human safety and health in general.

Vulnerabilities

Droughts and floods will mostly impact the poorest people in the country, including many who are members of ethnic minority groups living in mountainous areas and flood plains (i.e. disaster prone areas), especially in the southernmost provinces of the country. During community consultations in the project target districts in the southern provinces, it became evident that communities are vulnerable to multiple hazards for a number of reasons: geographically, areas along the banks of the rivers and low-lying areas are at risk of flooding. Areas below mountain slopes are at risk of landslides. The quality of infrastructure and shelter is insufficient to withstand floods, winds and landslides. Damaged or destroyed infrastructure contributes to conditions in which diseases flourish and households do not have surplus resources to cope with significant losses. Longer periods of droughts make the households particularly vulnerable to access water for domestic and agricultural uses. Besides that, remoteness and language and cultural barriers increase vulnerability of ethnic minorities as access to markets, basic services, including health care, and information is limited.

According to local authorities in the southern provinces, there was a major flood in Attapeu in 1968 which was followed by 41 years without significant flooding before major floods in 2009, 2011 and 2013. As well as increasing in frequency, floods are becoming more unpredictable, with normally unaffected districts being flooded in Sekong, Saravane and Attapeu in 2009, 2011 and 2013. Discussions with provincial and district level authorities revealed a heightened awareness and concern with floods following the devastation caused by flooding in September 2013. The unpredictable nature of sudden hazards means that communities have been caught off guard and were inadequately prepared. For example, the 2013 floods resulted in the loss of several lives in the southern provinces. In times of drought several communities noted there are sometimes no water in boreholes and women have to travel long distances to collect water. Floods are often followed by epidemics. In Attapeu, Sekong and Sarvane there was diarrhoea following the floods in 2009. Although, initially, authorities reported no epidemics following the 2013 floods, health workers trained by INGOs have since identified an outbreak of typhoid. In the affected communities, diarrhoea and fungal skin diseases are common after floods and dengue fever is a significant problem.

⁶ EcoLab (2012) Scoping Assessment of Climate Change Adaptation Priorities in the Lao PDR

To improve the resilience and adaptive capacity of populations in Lao PDR, and especially of those living in the southern provinces, it is imperative to recognize what makes a community 'climate-fit' and how to improve the resilience of 'climate-weak' populations. Geography is an important consideration; the challenges are inherently greater in places that are more exposed to disasters such as floods, droughts and landslides, and in areas with many endemic diseases. Increased population pressure, both on urban areas and on marginal land, result in people living in more disaster prone areas, such as along the banks of the rivers, in low-lying areas and below mountain slopes. However, the type, weakness and strength of a community and the services they depend on are also crucial: the resilience of poor and ethnic groups, and especially women, elderly and disabled people living in these groups. This provides the focus for this proposed project.

Economic context

Climate change is already causing economic losses but the government lacks the financial resources and technical capacity to respond.

Although Lao PDR's economy is growing rapidly⁷, it is still among the Least Developed Countries in the world,⁸ with one of the lowest annual incomes (i.e. GDP per capita is US\$1700 and total GDP is US\$11 billion).⁹ This is also illustrated by its low ranking (139 out of 187) on the Human Development Index.¹⁰ The current (2014) composition of the economy by amount of output produced by each sector is 44 percent for construction & services, 27 percent for agriculture, 18 percent for mining, electricity, water & gas sector and 11 percent for manufacturing.¹¹

As shown by the fast growth of the mining, electricity, water & gas sector (i.e. 18 percent in 2013 versus 10 percent in 2008) the government's strategy for accomplishing sustained, inclusive economic growth is mainly demonstrated through its ambition to become the 'battery' of the region, by generating electricity from its rivers and selling it to its neighboring countries. Regarding the construction and services sector (which contributed 44 percent to the economy in both 2013 and 2008), infrastructure and services coverage is limited to Vientiane and provincial capitals and is thus lacking in small and emerging towns and villages.¹² This is alarming because small and emerging towns, which provide critical economic hub functions in predominantly rural areas, grow fast but struggle significantly in providing crucial infrastructure and services for the existing and new populations.

Although plans exist to increase infrastructure and service coverage in remote areas, accomplishing progress has brought challenges due to a lack of funding combined with climate change related hazards, as demonstrated by the impacts of Typhoon Haiyan in 2013. In that year, flooding was the culprit as it severely hit the construction & services sector, with economic losses, mainly associated with destroyed infrastructure in towns and villages, being estimated at 0.83 percent of GDP.¹³

With hazards likely to increase in frequency and intensity, a major challenge is to protect existing infrastructure and deliver new infrastructure, including for instance water resource protection and drainage systems, in a way that it will withstand future floods, droughts and

⁷ World Bank Lao country profile online: <http://www.worldbank.org/en/country/lao>

⁸ UN DESA online: http://www.un.org/en/development/desa/policy/cdp/ldc/ldc_data.shtml

⁹ International Monetary Fund (2014). Report for selected countries and subjects. World economic outlook database

¹⁰ UNDP online: <http://hdr.undp.org/en/data>

¹¹ WB (2014) Lao development report 2014. Online:

https://www.worldbank.org/content/dam/Worldbank/document/EAP/lao-pdr/LDR_2014_Eng.pdf

¹² A study conducted by UN- Habitat in 2006 showed that basic services coverage in the small towns is significantly lower than the national average.

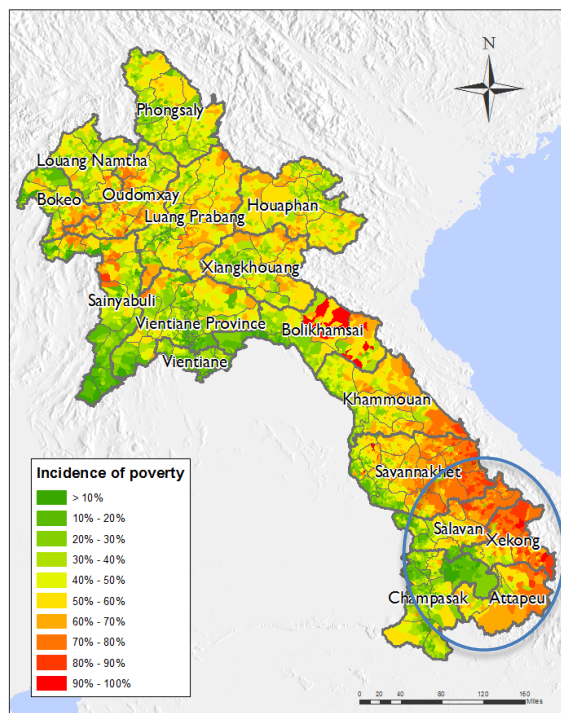
¹³ The Global Climate Risk Index 2015 online: <https://germanwatch.org/de/download/10333.pdf>

storms, which often trigger secondary hazards such as outbreaks of water and vector borne diseases. Related to this, ensuring that clean water and sanitation services are climate proofed, together with the adoption of key hygiene behaviors, is crucial for delivering significant benefits to the country in terms of reduced economic and household losses (related to destroyed infrastructure), health (including a reduction in diarrhea, malnutrition and stunting and associated health care costs) and increased productivity (related to less school and working days lost through illness and reduced collection time for clean water).¹⁴

Although plans exist to expand infrastructure and services coverage, Lao PDR lacks the financial resources and technical capacity to do this in remote areas and in a climate sensitive way. Therefore, the country requires external support, especially for the target communities of this project.

Social context

Figure 4: Incidence of poverty by village (2005) Provinces most affected are Savannakhet, Salavan, Xekong and Attapeu



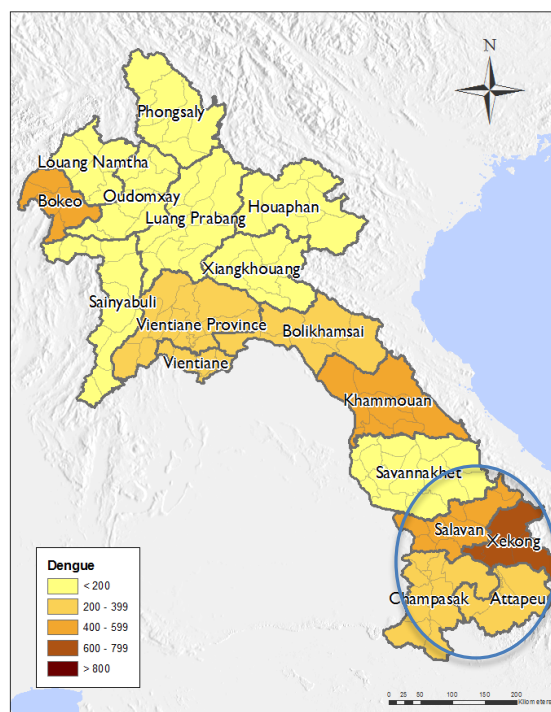
Legend

- Lao_Province
- Lao_District

Coordinate System: WGS 1984
Datum: WGS 1984
Scale: 1:4,800,000
Source: Population Census 2005

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Figure 5: Number of dengue cases by province (2011). Provinces most affected are Bokeo, Xekong, Salavan and Khammouan



Legend

- Province boundaries
- District boundaries

Coordinate System: WGS 1984
Datum: WGS 1984
Scale: 1:4,800,000
Source: Lao PDR government
WHO June 2013

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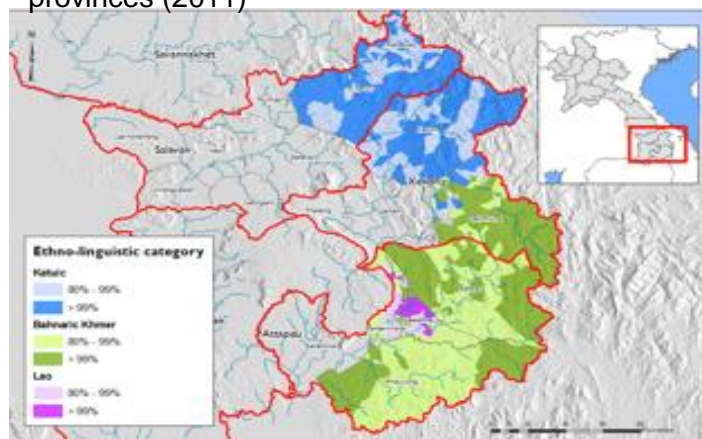
¹⁴ According to the World Bank, poor water, sanitation and hygiene alone impose a cost on the country equivalent to 5.6 percent of GDP annually: WB (2014) Water Supply and Sanitation in Lao PDR. Online: <http://www.wsp.org/sites/wsp.org/files/publications/WSP-LaoPDR-WSS-Turning-Finance-into-Service-for-the-Future.pdf>

Climate change will most severely hit the poorest areas of the country. The government however, lacks the financial resources and technical capacity to reach these people.

Lao PDR is divided into 17 provinces, which are made up of 142 districts and 11390 villages. The population is estimated at around 6.7 million (2014¹⁵). The country is home to 49 different ethnic groups with a high diversity of languages spoken, culture and traditions. Poverty is still widespread, with 34 per cent of the population living below the income poverty line¹⁶. Poverty is especially concentrated in areas with high concentrations of ethnic minority groups.¹⁷

As shown in figure 4 above, poverty is widespread but especially existent in the southernmost provinces of Lao PDR. Prevailing poverty is related to the lack of access (i.e. not being reached by the government) to basic services and impacts of hazards and diseases, which in turn are related to remoteness (i.e. areas difficult to access) and the disconnectedness of ethnic minority groups. Related to the lack of access to basic services and the regular occurrence of floods are the outbreaks of dengue fever (see figure 5) and acute bloody diarrheal disease (see figure 12 in annex 1).

Figure 6: Ethno-linguistic category in target provinces (2011)



Although progress has been made with regard to achieving MDG targets (which provide a key reference for the 8th Five Year National Socio-economic Plan), tailored approaches are required. Looking at MDG 1: eradicating extreme poverty and hunger; interventions focused on the poorest groups are needed to achieve targets. MDG 3, promote gender equality and empower women, is critical in the context of access to water and sanitation and the goal is threatened by climate change as women's traditional livelihoods and tasks (e.g. collection of drinking water) depend to a very large extent on climate sensitive resources (e.g. water). As for MDG 4: reduced child mortality and MDG 5: improved maternal health, more efforts are desired in infrastructure and service delivery, especially in small and emerging towns, where rural migrants settle, often informally and without access to basic services.¹⁸ Regarding MDG 6: combatting HIV/AIDS, malaria and other diseases, outbreaks of dengue and other diseases in the south threaten progress being made in the rest of the country. Nationwide, the incidence of malaria has reduced significantly, but there has been the surge in first-line drug resistant malaria outbreaks in the southern provinces leading to around 30 deaths annually, on average since 2011, in the 4 southern provinces.

The government's strategy for achieving off-track MDGs/new SDGs (through the provision and use of services that are balanced geographically and distributed equitably between social groups) include proposed activities such as coping with climate/weather changes and reducing the damages caused by natural hazards that could occur, transforming villages into developed units, designing good village planning, constructing necessary basic infrastructure and providing clean water and latrines.¹⁹

¹⁵ World Bank Lao country profile online: <http://www.worldbank.org/en/country/lao>

¹⁶ UNDP 2012 online: <http://hdr.undp.org/en/content/table-6-multidimensional-poverty-index-mpi>

¹⁷ MDG progress in Lao PDR online: <http://www.la.one.un.org/millennium-development-goals/mdg-progress-in-lao-pdr>

¹⁸ MDG progress in Lao PDR online: <http://www.la.one.un.org/millennium-development-goals/mdg-progress-in-lao-pdr>

¹⁹ See outcome 2 of The 8th Five Year National Socio-economic Plan online:

The expected impacts of climate change where hazards are likely to increase in frequency and intensity, challenge poverty reduction and health targets, mainly because poor communities live in high-risk areas and already lack access to basic services. Especially floods, which are projected to increase with climate change and deforestation, create conditions for the spread of water- and vector-borne disease, restricted access to clean water and food, inundation of unsafe sanitation facilities, and isolation from health services. Notwithstanding advances in WASH over recent years, the aforementioned issues cause death and have long-lasting impacts on poverty and food security if approaches to deliver these services are not sensitive to the impacts of climate change and related hazards.²⁰

Although plans exist to expand and improve basic infrastructure and services in the country, Lao PDR lacks the financial resources and technical capacity to do this in towns and villages in remote areas and in a climate sensitive way. In particular, the impacts of floods on basic services need to be addressed in order for poor communities, to escape poverty and reduce disease related mortality, malnutrition, stunting and associated health care and productivity loss related costs. An approach to establish this should focus on the needs of women, elderly, disabled people and ethnic minorities as they are impacted most severely by climate change. The country requires external support to do this.

Through the community consultations it became evident that women and girls are especially vulnerable to climate change. Loss and damage due to flooding, droughts and landslides have implications for water and food security. To cope with the burdens, women walk longer (up to three hours a day) to collect water or firewood. Besides that, several incidences have been reported of girls dropping out of schools and of community members, especially women, looking for temporary work abroad as a way to cope with the impacts of floods, droughts and landslides.

Environmental context

As stated by the United Nations²¹ 'Lao PDR faces a challenge in balancing economic activity without sustaining further environmental damage. Forest cover in the country has declined from 49 per cent in 1982 to 40 per cent in 2010. This is down from some 70 per cent several decades prior. When combined with further industrial activity, the decline in forest cover transformed Lao PDR from a net sequesterer of CO₂ in 1990 to a net emitter in 2000.' With Lao PDR's economy also accelerating because of increased demand for its metals and wood, deforestation remains a challenge, also because of the increased risks of flooding. Climate change will exacerbate this risk and that of other hazards with wet seasons expected to get wetter and dry seasons drier.

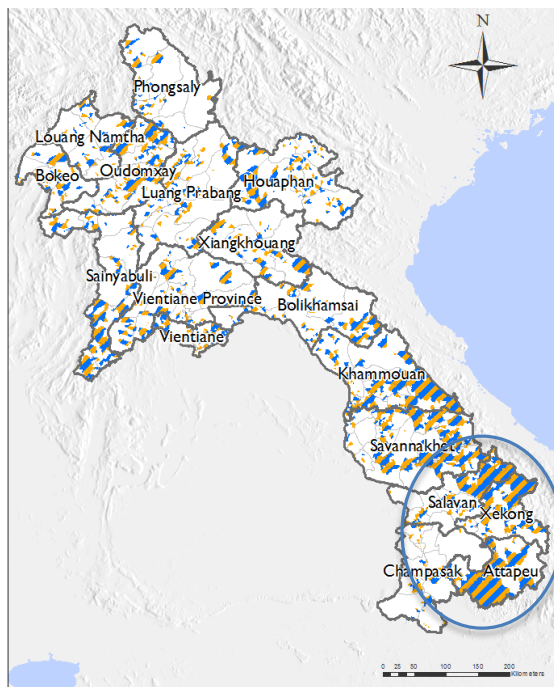
As shown in Figures 7 and 8 below, the southern provinces are most affected by floods, droughts and landslides. The landslides mostly occur in the remote mountain areas. Altogether, the provinces of Saravan, Xekong and Attapeu have been selected because they score high on poverty and ethnic minority groups in combination with the regular occurrence of hazards and diseases. Ethnic groups are especially vulnerable to climate change because of their low adaptive capacity, which is related to low income, remoteness/lack of government support and limited learning from other communities because of cultural/language barriers.

file:///Users/jorisoele/Downloads/Draft_8th_NSEDP_2016-20.pdf

²⁰ USAID (2013) Mekong ARCC climate change impact and adaptation study

²¹ MDG progress in Lao PDR online: <http://www.la.one.un.org/millennium-development-goals/mdg-progress-in-lao-pdr>

Figure 7: Presence of floods and droughts by province (2011). Provinces most affected are those in the south of Lao PDR.

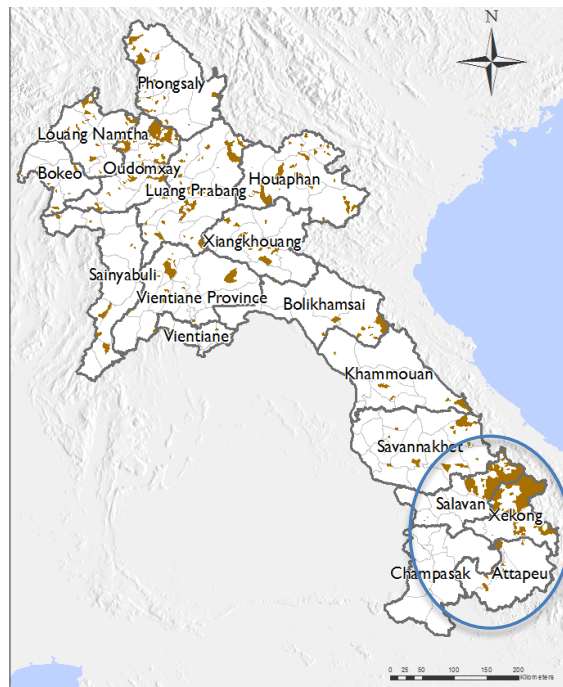


Legend
 Province boundaries
 District boundaries
 Floods and droughts

Coordinate System: WGS 1984
 Datum: WGS 1984
 Scale: 1:4,800,000
 Source: Agricultural census 2011



Figure 8: Presence of floods, droughts and landslides by province (2011). Provinces most affected are Salavan and Xekong



Legend
 Province boundaries
 District boundaries
 Floods, droughts and landslides

Coordinate System: WGS 1984
 Datum: WGS 1984
 Scale: 1:4,800,000
 Source: Agricultural census 2011



Part of the governments' strategy to graduate from LDC status and to reduce poverty is to reduce effects of natural shocks and sustainable management of natural resources exploitation. To accomplish this, the government focuses on three components: 1) environmental protection and sustainable natural resources management, 2) preparedness for natural disasters and risk mitigation and 3) reduced instability of agricultural production. Some of the proposed activities²² to achieve results under these components include: developing a plan for sustainable use and management of natural resources (i.e. land and water), develop plans for urban and rural development with good environmental preservation, comprehensively manage water resources, develop relevant policies and legal instruments that can manage disasters and adaptation to climate change and harmonize and link policies on water resources protection and management, food security, energy security and the development of clean and safe cities and improve policy application and legislation on natural resource use and management.

Although the government has the intention to execute aforementioned activities, it lacks the budget and technical capacity to actually do so. With a governance framework (i.e. plans, policies and legislation) for the sustainable and climate sensitive use and management of natural resources (i.e. land and water) more or less absent at the both the national and local level, developing these is urgently needed to enable the government respond to future threats of climate change and related hazards.

²² See outcome 3 of The 8th Five Year National Socio-economic Plan online: file:///Users/jorisoele/Downloads/Draft_8th_NSEDP_2016-20.pdf

To summarize above background and context section; the government of Lao PDR, with its limited financial resources and technical capacity, requires external support to protect existing infrastructure from negative climate change impacts and to deliver new basic infrastructure and services in a climate sensitive way that respond to both rural and urban needs at the same time. This is particularly critical in the rapidly urbanizing small towns because climate change related losses, both in terms of economic losses and loss of lives, can be related to poor urban planning, inadequate infrastructure delivery and high densities. To enable the government to do this, also in the long run, the existing governance framework (i.e. plans, policies and legislation) needs to be further strengthened, especially focused on filling the main gaps: the current lack of tools to plan and manage land, water and infrastructure in a way that climate risks are reduced and in a way that linkages are made between rural and urban development.

2. Project Objectives

Main objective:

The project's main objective is to enhance the climate and disaster resilience of the most vulnerable rural and emerging urban human settlements in Southern Lao PDR by increasing sustainable access to basic infrastructure systems and services, emphasizing resilience to storms, floods, droughts, landslides and disease outbreaks.

To accomplish this, firstly the technical capacity of the government (national and local) in combination with establishing an enabling governance framework is required. Secondly, at the community level, inhabitants need to be enabled to plan for resilience, construct and maintain basic resilient infrastructure systems and to improve hygiene standards. This is mirrored in specific objectives 1 and 2 below. The 3rd specific objective below comprises the concrete part of adaptation measures: constructing climate and disaster resilient infrastructure systems in human settlements and strengthen the resilience of existing infrastructure systems.

Specific objectives (also 'project components' in the following table):

1. Develop institutional capacities of the national government and local authorities to increase the resilience of human settlements and infrastructure systems;
2. Enable communities to improve their well-being/health conditions by developing local capacities and resilience strategies for their settlements and infrastructure systems;
3. Enhance climate and disaster resilient infrastructure systems in human settlement.
4. Ensure project compliance with AF and UN-Habitat standards for knowledge Management, Advocacy and Monitoring

3. Project Components and Financing:

Table 1: Project components and financing

Project Components	Expected Concrete Outputs	Expected Concrete Outcomes	Amount (US\$)
1. Institutional level strengthening to reduce vulnerability in human settlements (soft)	Output 1.1.1. Integrated climate change vulnerability and disaster risk reduction assessments (incl. maps) conducted/produced in target areas	Outcome 1.1. Reduced vulnerability at national, provincial and district level to climate-related hazards and threats	250,000
	Output 1.2.1. Capacity development support provided to national government and local authorities	Outcome 1.2. Increased awareness on resilience building of human settlements and infrastructure systems	250,000
	Output 1.3.1. Provincial and district-level Climate Change Action Plans – including (as appropriate) implications for land use, water resource management and infrastructure developed. Based on the vulnerability assessments and in close consultation with provincial and district level authorities and the communities concerned, evidence-based and specific adaptation options are identified	Outcome 1.3. Resilience building measures identified by provincial and district authorities which can feed into local development plans, emphasizing community climate change resilience, disaster preparedness, , land use planning, water resource management and infrastructure development	187,640
2. Building capacity at the human settlement and community level for climate resilience (soft)	Output 2.1.1. Trainings and community action planning workshops provided to communities for the development of community resilience plans and to plan, construct and maintain climate and disaster resilient water, drainage-, and sanitation- related infrastructure systems and to improve hygiene standards.	Outcome 2.1 Community capacity to plan, construct and maintain resilient water-, drainage-, sanitation-, related infrastructure systems and to apply improved hygiene standards strengthened	200,000
3. Enhance climate and disaster resilient infrastructure systems in human settlement (hard)	Output 3.1.1. Vulnerable infrastructure strengthened or new resilient infrastructure constructed in response to climate change impacts, including variability	Outcome 3.1. 47,000 people have access to storm, flood, landslide-, drought- and disease resilient water, drainage, sanitation and health related infrastructure systems	2,800,000
4. Knowledge Management, Advocacy and Monitoring	Output 4.1.1. Project activities and results are captured and disseminated through appropriate information for the	Outcome 4.1. Project implementation is fully transparent. All stakeholders are informed of products and results	100,000

	beneficiaries, partners and stakeholders and the public in general.	and have access to these for replication.	
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For a detailed budget (per output) please see the budget section (G) in part III of this proposal

5. Project/Programme Execution cost	US\$359,825
6. Total Project/Programme Cost	US\$4,147,465
7. Project/Programme Cycle Management Fee charged by the Implementing Entity (if applicable)	US\$352,535
Amount of Financing Requested	US\$4.5 million

4. Projected Calendar

Table 2: Milestones and expected dates

Milestones	Expected Dates
Start of Project/Programme Implementation	01-2017
Mid-term Review	01-2019
Project/Programme Closing	12-2021
Terminal Evaluation	06-2021

PART II: PROJECT / PROGRAMME JUSTIFICATION

A. The project components

In order to achieve its project objective, “To enhance the climate and disaster resilience of the most vulnerable human settlements in Southern Laos by increasing sustainable access to basic infrastructure systems and services, emphasizing resilience to storms, floods, droughts, landslides and disease outbreaks”, the project combines a number of horizontally and vertically interrelated policy, planning and capacity development initiatives and has at its core the delivery of resilient infrastructure and services in the project target settlements in Southern Lao PDR. These settlements are characterized by the exposure to multiple climate hazards and their local impacts. Climate sensitivity is underpinned by urbanization dynamics and population growth, a host of underlying vulnerabilities (poverty, limited access to basic services such as WASH and health, high percentage of ethnic minorities, gender inequalities, weather dependent livelihoods) and limited adaptive capacity at household, community and governance level.

By providing a comprehensive approach which strengthens national and local government capacities, policies and legal frameworks, enhances community capacities and facilitates processes that respond to current and future needs and provides a strong mix of soft and hard interventions it is anticipated that local resilience at the household, community and human settlements level is sustainably strengthened.

Capacity building at the national and provincial levels are aligned with the capacity building efforts at the human settlements and community levels. Trained officials from national and provincial levels will thus work closely with the communities and participate and facilitate in the trainings and community action planning workshops. The community planning workshops are to be the results of the national, provincial and district level authorities and the communities concerned to develop evidence-based and specific adaptation options. Furthermore this partnership will continue during the strengthening and/or construction of new resilient infrastructure so as to ensure maximisation of this synergy.

Whilst the planned interventions are strongly rooted in national and local priorities the reshaped global development and climate change agenda provides further guidance. In particular, Sustainable Development Goal (SDG) 11 (and several of its targets); Make cities and human settlements inclusive, safe, resilient and sustainable, and Goal 6 (and its targets), Ensure availability and sustainable management of water and sanitation for all will be addressed by the project. As the New Urban Agenda is emerging as the expected outcome of the Third United Nations Conference on Housing and Sustainable Urban Development (Habitat III, in Quito, October 2016) the project will be informed by this framework.

The specific needs of women, disabled people, ethnic groups and youth will be considered at all stages of the project. UN-Habitat has prior experience of successfully working in diverse multi-ethnic settings in Lao PDR. This is achieved through engaging representatives, including women, elderly, youth and disabled people, of communities from different ethnic groups in community and stakeholder consultations. This is done through a community-based approach and people’s process – where community groups are formed so that community involvement is in all stage of project implementation: participate in planning, implementing, procuring,

monitoring of project activities (see link to video and document in footnote²³). To ensure that prioritised interventions contribute to actual climate change adaptation, tools such as 'Planning for climate change'²⁴ can be used (in a tailored way). Besides, UN-Habitat engages village representatives of quasi-governmental institutions like the Lao National Front for Construction (mostly ethnic representation), Lao Women's Union (women representation) and Lao Youth Union (youth representation).

The project will align and thereby strengthen the government's '3-build' or 'Samsang' process of decentralisation, whereby the local government institutions will play a key role in planning, developing and implementing the community infrastructures in close consultation with the communities and other stakeholders. The national government will be involved in coordinating and monitoring with UN-Habitat as well as in dissemination of project outputs to other non-participating provinces.

The project is built around four interrelated components, which highlight the importance of intuitional capacity, local capacity and ownership and tangible action.

1. Institutional level strengthening to reduce vulnerability in human settlements (soft)

In line with AF outcomes 1 and Lao PDR priorities (see policy section), this component will focus on reducing vulnerability at national, provincial and district level to climate-related hazards and threats by:

- 1.1.1.1. Conducting 3 provincial Climate Change Vulnerability Assessments.
- 1.1.1.2. Conducting 8 District-level Climate Change Vulnerability Assessments (highlighting specific vulnerabilities in 189 settlements).
- 1.1.1.3. Develop guidelines for replication of vulnerability and risk assessments for other areas

Based on existing assessments and utilizing existing tools which will not stop at assessing the climate hazards and their immediate impacts but will bring out the particular climate sensitivities and existing adaptive capacities (including UN-Habitat's tool *Planning for Climate Change*²⁵) vulnerabilities will be assessed at the provincial level (3) and at the district level (8) the latter will include specific assessments at the community level.

The information generated by the vulnerability assessments (see method and expected outcomes in annex 8) will allow provinces, districts and settlements to plan for resilient development, including identifying low risk areas for development and identifying and prioritizing intervention that are resilient, sustainable and focused on the needs of vulnerable groups.

In line with AF outcomes 2 and Lao PDR priorities (see policy section), this component will also focus on increasing awareness on resilience building of human settlements and infrastructure systems as a result of enhanced institutional capacity by:

²³ The people's process in video: <https://youtu.be/9kaM1sgW4LI> and document: <http://unhabitat.lk/wp-content/uploads/2015/01/sProcess.pdf>

²⁴ Planning for climate change tool online: <http://unhabitat.org/books/planning-for-climate-change-a-strategic-values-based-approach-for-urban-planners-cities-and-climate-change-initiative/>

²⁵ Planning for Climate Change guide and tool (<http://unhabitat.org/books/planning-for-climate-change-a-strategic-values-based-approach-for-urban-planners-cities-and-climate-change-initiative/>
<http://unhabitat.org/books/planning-for-climate-change-toolkit/>)

- 1.2.1.1. Developing a project tool (comprising of assessment and planning approach, guidelines for resilient infrastructure, and technical standards, environmental and social safeguards and community action planning tools).
- 1.2.1.2. Providing project team induction/training
- 1.2.1.3. Providing national Induction/Stakeholder Workshop (national and provincial participants)
- 1.2.1.4. Providing national training of facilitators workshop (national and provincial participants)
- 1.2.1.5. Providing district level workshops in support of project roll out (provincial and district-level participants)

Trainings/workshops will be provided at the national, provincial and district level to roll out. During the trainings/workshops, barriers and opportunities for increasing the resilience of human settlements and infrastructure systems (by reviewing relevant planning practices, policies, legislation and finance) will be identified. This will also entail identifying opportunities for livelihood/economic development planning support and for sustaining and up-scaling the project, including a strategy to capture and disseminate lessons learned. It is envisaged that the capacity built both at the institutional and local/settlements level will be sustainable as the activities will have robust national, provincial and local government anchoring. Mechanism at the local level, such as that of refresher trainings (based on established tools such as training manuals) will be institutionalized so as to ensure that the capacity built is not only sustained but also could be considered for possible roll-outs in other districts, which are not within the current project scope.

Capacity development support is provided with regards to key project components aiming primarily at national government partners (such as the Water Utility and the Ministry of Public Works) and local authorities (at the provincial and district level). Initial workshops will position the project and further clarify the roles of partners. Further training will be provided on the key components, which are to ensure that the project is successful such as the vulnerability assessment and spatial planning approach, resilient infrastructure, technical standards, environmental and social safeguards and community action planning.

Simple tools will be developed to support the workshops and to provide further guidance for the roll out to the community level and to provide guidance for policy.

In line with AF outcomes 7 and Lao PDR priorities (see policy section), this component will also focus on identifying resilience building measures by provincial and district authorities which can feed into local development plans emphasizing community climate change resilience, disaster preparedness, land use planning, water resource management, and infrastructure development by:

- 1.3.1.1. Developing three provincial Climate Change action plans including implications for land use, water management and infrastructure
- 1.3.1.2. Develop eight district-level Climate Change action plans, highlighting particular vulnerabilities of the 189 communities, including implications for land use, water management and infrastructure

The information generated by the vulnerability assessments will allow provinces, districts and settlements to develop climate change action plans. The development of these plans is supported by the capacity development activities as discussed above.

Activities that further contribute to the development of community plans (incl. maps) may include risk maps of flood plains and areas at risk of droughts, landslides and dengue (and other diseases) and related to this: appropriate watershed management options, water use and safety plan (i.e. water distribution), preparedness and post hazards recovery processes, possibly supported with adjusted policy and regulations (including for land use) that recognize emerging

climate change vulnerabilities and disaster risks. At the province and district level, plans may also include monitoring system on land-use, water use and flood control measures.

2. Building capacity at the human settlement and community level capacities for climate resilience (soft)

In line with AF outcomes 3 and Lao PDR priorities (see policy section), this component will focus on strengthening community capacity to plan, construct and maintain resilient infrastructure systems and to apply improved hygiene standards by:

- 2.1.1.1. Providing community workshops/trainings in support of project roll out (vulnerability and risk assessment support, developing/updating community plans based on identified vulnerabilities and risks and selecting infrastructure projects)
- 2.1.1.2. Providing community trainings for planning, construction and maintaining resilient infrastructure and to apply improved hygiene standards
- 2.1.1.3. Developing guidelines to plan, construct and maintain small-scale climate and disaster resilient infrastructure systems

Facilitating local action planning, bringing together local authorities and communities, will provide a comprehensive resilience framework. Further, this component aims to promote induction and adoption of change in community relations with using water resource, drainage, sanitation and health related infrastructure systems. Existing governance structure at the community/settlement levels (that of village chiefs along with their village administration groups) will be optimally utilized to ensure that capacity built is retained and not lost. Besides the capacity built at the local government levels will ensure that appropriate and periodic engagements on these issues are continued as part of their existing established systematic consultations.

To build the capacity of communities to climate resilience, trainings/workshops will be provided at the community level to develop capacities to plan, construct and maintain climate and disaster resilient water resource-, drainage, sanitation and health related infrastructure systems and how to reduce risks to climate change related water and vector borne diseases through technical improvements and applying hygiene standards. The capacity will be sustained through the development of guidelines to plan, construct and maintain small-scale climate and disaster resilient infrastructure systems and through community agreements for executing component 3. This will not only increase technical skills but also project management capability (such as financial literacy, negotiation skills).

Based on the outcomes of the vulnerability assessments and the community plans/maps, community-level criteria-based prioritization exercises will identify and prioritize projects. The prioritization will be done through a community-based approach, which UN-Habitat has been applying in the Asia Pacific Region for nearly 20 years, termed the People's Process²⁶ and using climate change planning tools (see annex 8). This will ensure that the prioritized projects contribute to local climate change adaptation while being appropriate for the community.

²⁶ Development driven by people/Support Paradigm: when people stays at the center of development planning process, the resource can be optimized with greater utility impacting larger number of people: <http://sopheapfocus.com/wp-content/uploads/2010/06/Picture-31.png> People's process of development can be witnessed through the evolvement of people's desire to improve their lives. Humans developed their settlement from living in caves, then building shelters, and now home. Along this settlement evolution, they had also established certain norms, standards, and a mutual understanding surrounding their community. That is called the people's process of development.

3. Enhancing climate and disaster resilient infrastructure systems in human settlement (hard)

In line with AF outcomes 4 and Lao PDR priorities (see policy section), this component will focus on providing access of 47,000 people to storm, flood, landslide-, drought- and disease resilient water, drainage, sanitation and health related infrastructure systems by:

- 3.1.1.1. Identifying sub-project (based on vulnerability assessments and community-based selection criteria)
- 3.1.1.2. Conducting environmental and social risk assessments of sub-projects
- 3.1.1.3. Pursuing provincial government procurements
- 3.1.1.4. Participative planning, construction and maintenance of resilient infrastructure

The results of the vulnerability assessments and the subsequent climate change action plans and community resilience plans will guide the selection of sub-project locations and their focus: the development of resilient water-, drainage-, and sanitation related infrastructure systems or upgrading of critical existing infrastructure (such as water supply systems, health clinics) most at risk. Where prioritized, climate and disaster resilience of schools and other community infrastructure may be supported.

In other words, Components 1 and 2 will allow local authorities, communities and households to identify the areas and infrastructure systems most vulnerable to climate change (i.e. floods, storms, landslides droughts and diseases), prioritize measures to protect existing infrastructure and plan, construct and maintain appropriate new infrastructure systems on safe locations and/or with technical standards that will protect the infrastructure from aforementioned climate change impacts.

The design of the infrastructure will be holistic, meaning that it will look at Building Back Better principles (to protect it from climate change related hazards) but also to use resources efficiently and to reduce, at the same time, the breeding of mosquitos and risks of polluted (including but not limited to arsenic and/or fluoride contamination) water for instance. The prioritization of projects will be done by using planning for climate change tools combined with a community-based approach and the People's Process. This will ensure that the prioritized projects contribute to local climate change adaptation while being appropriate for the community. Depending on the complexity of the construction for projects, community members will be involved (e.g. for simple digging and masonry work, semi-skilled and skilled labour from the communities will be recruited and further capacitated).

A list of possible types of interventions (so these are not definite), which is the results from a multi-stakeholder consultation in the target areas (in which UN-Habitat took part), can be found below:

- Watershed management (where feasible), with measures to protect water resources;
- Building (where feasible) small-scale community-based water infrastructure, using spring/surface or underground water sources;
- Building (where feasible) water intake with a dam to reserve water source for usage during the dry season;
- Building (where feasible) gravity feed systems with the protection of water sources;
- Building (where feasible) an irrigation system with slide gate to regulate water;

- Building (where feasible) rain water harvesting with roof or underground catchments to collect rain water for using during dry season;
- Using (where feasible) solar energy to pump water in agricultural production.
- Improve (where feasible) and build WASH facilities with Building Back Better (BBB) principles;
- Building (where feasible) Small-scale community-based waste-water treatment systems to be reuse the treated water in agricultural production, and
- Provide technical assistance and guidance towards Building Back Better (BBB) principles related to shelter and WASH infrastructures
- In support of community resilience improve (where feasible) prioritized community infrastructure such as schools, roads or drainage.

As for the roles/responsibilities the governments (local and national) will have in planning and developing infrastructure under this component, these are spelled out in an AoC example with Attapue province (see annex 7)

4. Knowledge Management, Advocacy and Monitoring

In line with AF guidelines this component will ensure the project implementation is fully transparent, all stakeholders are informed of products and results and have access to these for replication and M & E is in compliance with AF, UN-Habitat and Lao PDR government standards and procedures by:

Knowledge management and advocacy:

- 4.1.1.1. Capturing and disseminating project results through appropriate information for the beneficiaries, partners and stakeholders and the public in general.

Monitoring & Evaluation:

- 4.1.1.2. Conducting measurements of means of verification
- 4.1.1.3. Direct Project Monitoring and Quality Assurance including progress and financial reporting, project revisions, technical assistance and risk management
- 4.1.1.4. Evaluations (Mid-term review and Independent terminal evaluations)
- 4.1.1.5. Having inception workshop, field visits and project management committee meetings

The capacity of the government will be increased through training workshops and on-the-job mentoring of national and local government officials (for conducting vulnerability assessments (VAs), developing plans and by providing capacity building support to communities (i.e. cascading down the acquired knowledge). The capacity will be sustained by anchoring it directly with key government staff and through tools developed, knowledge generation and dissemination.

B. Economic, social and environmental benefits

Figure 9: Target towns in target provinces. Many of the towns consist of villages that are merging and/or developing into emerging towns (thus the number in the map is lower than the official number of 189 settlements – see table 3).

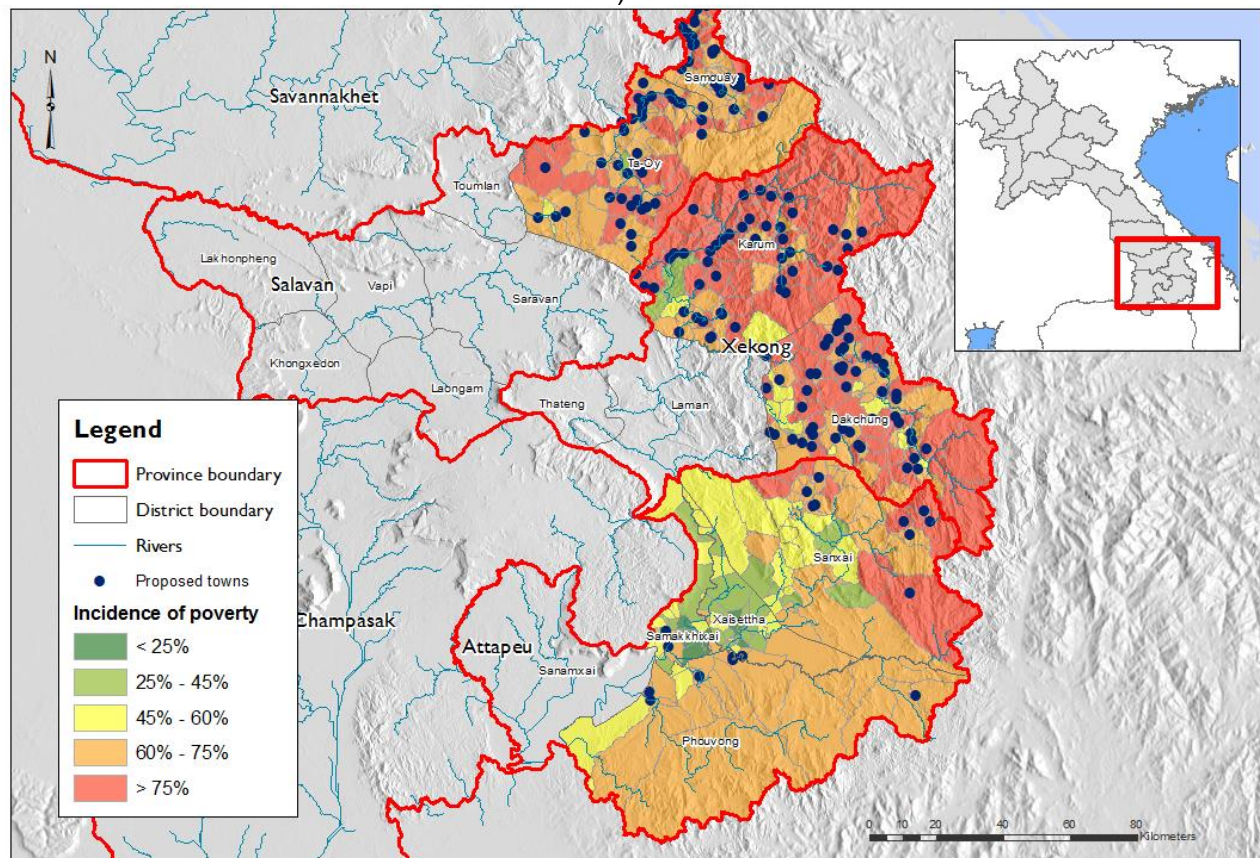
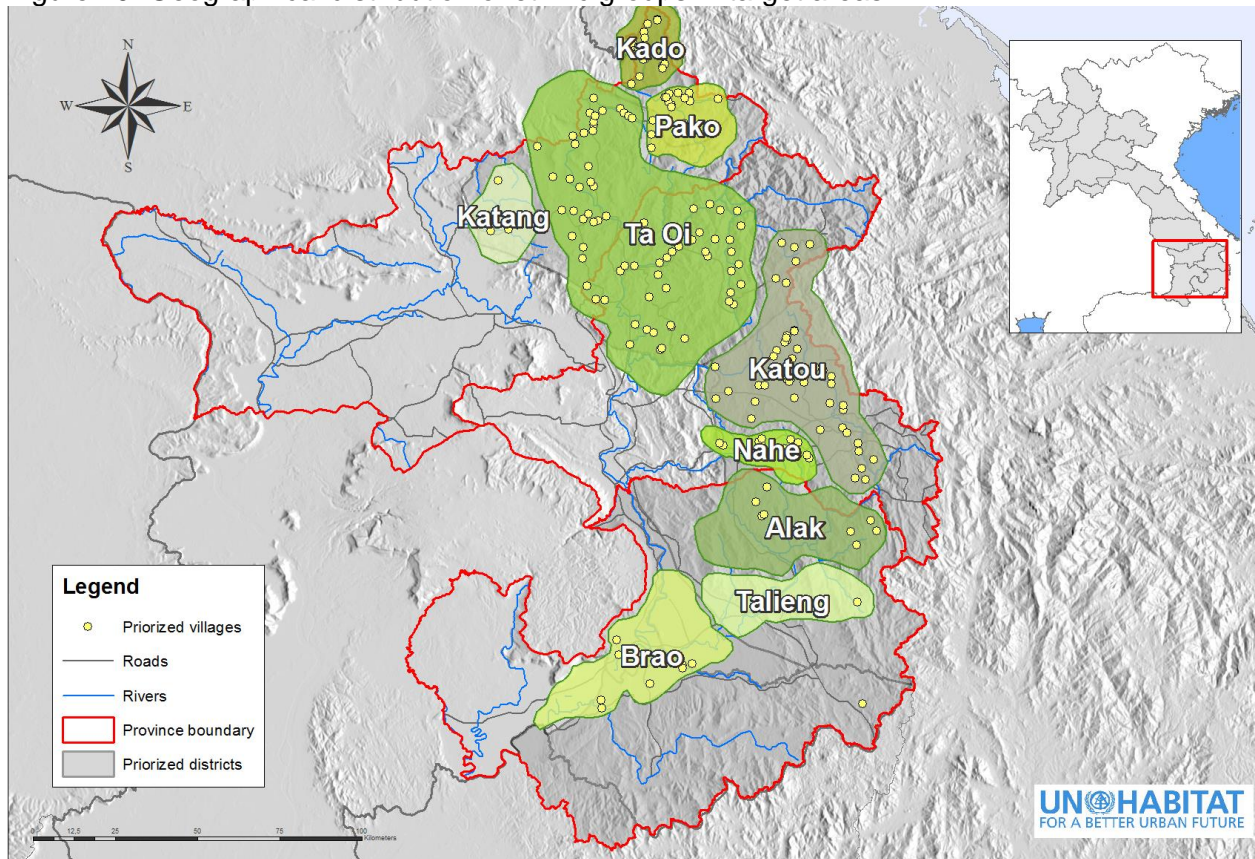


Table 3: Target settlements

Province	District	Main ethnic groups	Local hazards	Total settlements	Priority Settlements	Population
Attapeu	Phouvong	Brao, Lao Tai, Alak, Talieng	Floods and droughts	25	6	3,342
	Samakkhixay	Brao, Lao Tai, Alak, Talieng	Floods and droughts	43	2	725
	Sanxai	Brao, Lao Tai, Alak, Talieng	Floods, droughts and landslides	58	9	1,629
	Xaysetha	Brao, Lao Tai, Alak, Talieng	Floods and droughts	31	1	838
Sekong	Dakcheung	Ta Oi, Katou, Pako	Floods, droughts and landslides	94	52	11,294
	Kaleum	Ta Oi, Katou, Nahe	Floods, droughts and landslides	61	49	9,685
Saravane	Samuoi	Ta Oi, Pako, Katang, Kado	Floods, droughts and landslides	58	32	5,963
	Ta oi	Ta Oi, Pako, Katang, Kado	Floods, droughts and landslides	56	38	13,953
Total				426	189	47,429

Note: Many of the villages are merging and/or are developing into emerging towns.

Figure 10: Geographical distribution of ethnic groups in target areas.



The primary beneficiaries of the targeted intervention are 47,000 people (of which 24,000 women and girls) in 189 settlements (see list of target settlements in annex 3). In these settlements, at least 60 per cent of the population lives in poverty and they are affected by floods, droughts, landslides and climate related diseases. No or limited basic services exist in these settlements. Moreover, the population consist of a high percentage of ethnic minorities. The main ethnic groups per district are mentioned in table 3 above. These groups all belong to the Ethno linguistic Family called Mon-Khmer. This family is especially vulnerable to climate change because they are the poorest among the ethno linguistic families (with an average poverty rate is 54.3% - see table 4 below). Besides that, they lack access to basic infrastructure, services, including healthcare and information (due to remoteness and language and cultural barriers) and they are exposed to multiple climate change related hazards.

Table 4: Poverty patterns across ethnic groups

Ethno linguistic Family	Percentage of National Population	Incidence of Poverty Headcount Index (% of pop.)
Lao-Tai	66.6	25.0
Mon-Khmer	20.6	54.3
Hmong-lu Mien	8.4	40.3
Chine-Tibet	3.3	45.8
Other	1.1	48.4

Source: Chamberlain (2007)

As discussed in the project background and context section, universal access to water, irrigation, sanitation and health related infrastructure is crucial for reducing poverty, health issues (and related mortality and morbidity) and economic losses in Lao PDR. This project will increase access to safe and resilient water, drainage, sanitation, and health related infrastructure in the poorest and most vulnerable settlements in Lao PDR.

The main beneficiaries of this project, ethnic groups belonging to the Mon-Khmer ethnic family, will be better prepared to deal with climate change hazards, reduce occurrences of diseases outbreaks, enhance agricultural outputs (due to better irrigation), increase food security and infrastructure will be planned, constructed and maintained in a way that it is resilient to the aforementioned climate change and disaster impacts. Infrastructure (especially water supply and sanitation units) will also be designed in a way that it is accessible and safe for women and people with disabilities and sensitive to local cultural norms. Water for the facilities will be used efficiently and, if possible, stored for home gardening/agriculture and/or for the dry season.

The development of climate change action plans at the provincial, district and settlement level, in which climate change vulnerabilities and disaster risks will be identified, will include an analysis and strategy to ensure equal access to infrastructure considering marginalized and vulnerable groups, indigenous peoples and gender. For instance, UN-Habitat will engage representatives of communities from different ethnic groups in community and stakeholder consultations and will engage village representatives of quasi-governmental institutions like Lao National Front for Construction (mostly ethnic representation), Lao Women's Union (women representation) and Lao Youth Union (youth representation). Besides that, natural resources (especially water sources) critical for communities will be identified and strategies developed to ensure sustainable access.

The project will have a range of interlinked economic, social, environmental benefits. Below table will provide the specific benefits that the project will provide, from an economic, environmental and social standpoint.

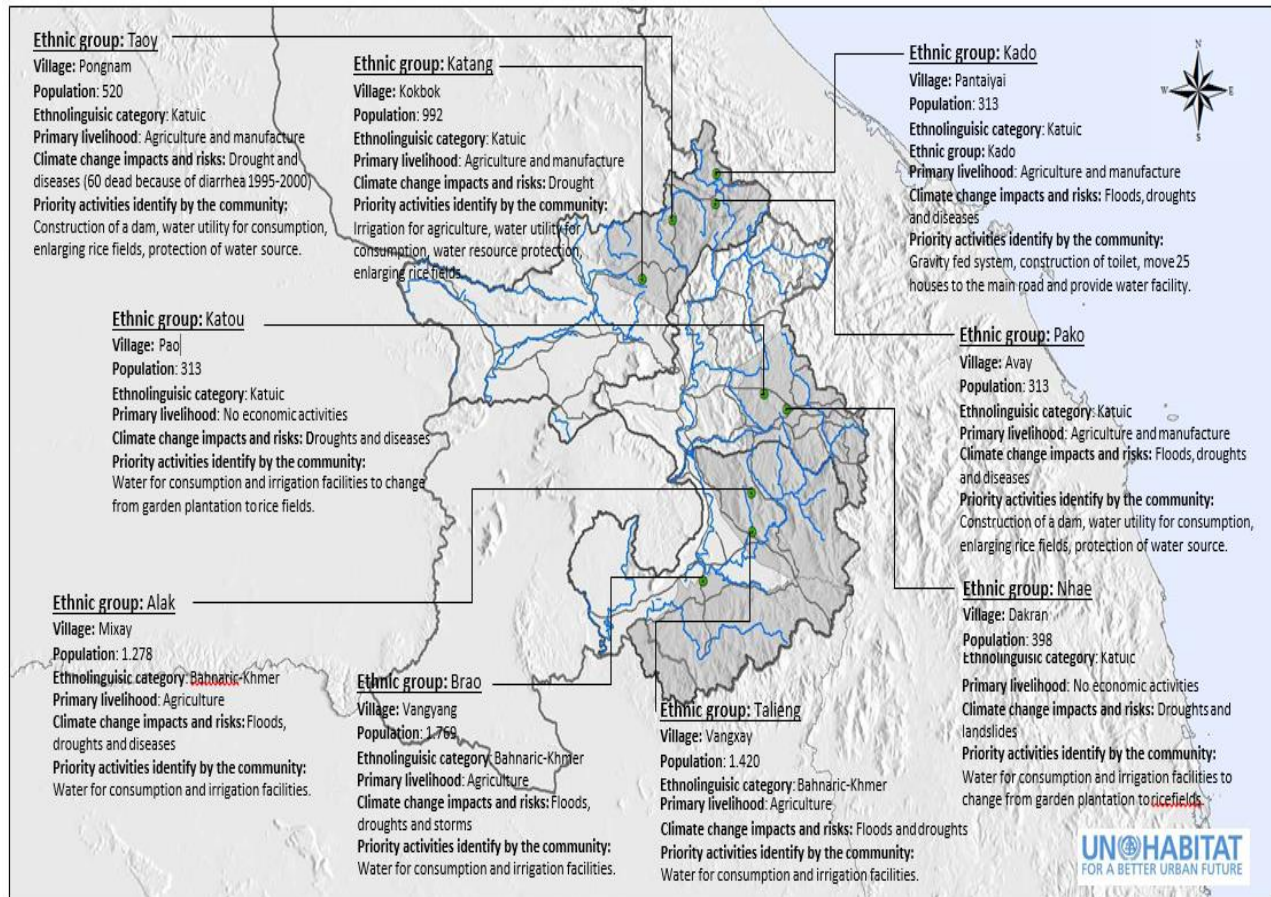
Table 5: Overview of settlement/community level economic, social and environmental benefits of AF intervention compared to no intervention (baseline).

Type of benefits	Baseline	With/after the project
Economic benefits	<p>Regular floods, droughts and landslides result in livelihood and economic and household losses</p> <p>Regular droughts and floods challenge access to safe water and cause disease outbreaks. In dry seasons, women often need to walk 1-3 hours to collect water. During floods, open defecation practices lead to disease outbreaks. Non-irrigated water leads to increased mosquito breeding, which in turn lead to increased dengue and malaria occurrences.</p>	<p>Protect existing infrastructure, delivering new resilient infrastructure, such as secured water supply and management (e.g water storage and irrigation) will enhance food security and improve business and economic conditions, which in turn, will reduce poverty</p> <p>Increased productivity and production and reduced health care costs benefits through improved access to safe water sources, increased hygiene and reduction of waterborne diseases</p> <p>Increased resilience of natural livelihood capital, such as land and water, will improve the coping mechanisms of the most vulnerable people in the target area and reduce human and material losses during extreme weather events.</p>
Social benefits	Lacking knowledge about	Health benefits through improved access to safe water sources, resilient sanitation facilities, reduction of

	<p>climate related risks (e.g. floods, landslide, health) and resilient construction methods result in limited autonomous adaptation measures.</p> <p>Women, elderly, disabled people and ethnic groups are especially vulnerable to climate change because of dependence on climate related services (e.g. water and food), diseases, limited access to health care and information and remoteness</p>	<p>waterborne diseases and improved hygiene standards.</p> <p>Resilient as well as gender, elderly, disabled people and ethnic costumes sensitive water infrastructure interventions improve food and water safety and security.</p> <p>Increased risk awareness, improved knowledge on climate change impacts and resilient infrastructure construction and maintenance enhances capabilities to undertake autonomous adaptation actions.</p> <p>A planning approach sensitive to marginalized and vulnerable groups, indigenous peoples and gender will ensure equal access to resilient infrastructure.</p>
<p>Environmental benefits</p>	<p>Natural resources are not used and managed in a sustainable way.</p>	<p>The development of environmental sensitive and resilient land use, water resource, infrastructure and community plans will increase the sustainable use of natural resources and improve ecosystem resilience.</p>

In April-May 2016 UN-Habitat consulted the different ethnic groups targeted in this project with the purpose of understanding ethnic-specific vulnerabilities and needs. An overview of the results are presented in figure 10 below.

Figure 10: Ethnic-specific vulnerabilities and needs of target groups.



C. Cost effectiveness

Cost effectiveness because of costs avoided

Poor water, sanitation and hygiene alone impose a cost on the country equivalent to 5.6 percent of GDP annually.²⁷ With this project aiming to secure access to resilient water resources and increase access to sanitation, together with communities' adoption of key hygiene behaviors, community/household costs can be significantly reduced, both in terms of reduced health care costs (with reduced diarrhea, malnutrition and stunting) and increased productivity (reduced collection time for water, less school and working days lost through illness). Besides that, economic and household losses associated with destroyed infrastructure due to regularly recurring storms, floods and landslides will be reduced. Moreover, stored water and improved/climate and disaster proofed drainage systems will reduce losses associated with agricultural losses due to droughts. This implies that taking no action (business as usual) will lead to incrementally increasing costs in time associated with health care costs, low productivity and losses due to storms, floods, landslides and droughts.

Regarding concrete adaptation costs, US\$2.8m will be allocated to the poorest settlements focusing on the most vulnerable communities in 189 settlements to construct infrastructure that will make them more resilient, especially to floods and droughts. UN-Habitat's cost effective designs (see Annex 2) enable a greater number of people to benefit. The hard component is backed up by US\$687,640 from the soft components 1 and 2 that supports planning and capacity building to ensure that these benefits are sustained and replication potential exists.

Cost effectiveness in project operations

Traditionally UN-Habitat in Lao PDR has shown high cost-effectiveness in project operations²⁸ UN-Habitat's cost efficiency stems from the fact that technical assistance, capacity building and designs are done mostly in-house, because UN-Habitat cuts out the middlemen (e.g. consultancy firms), because UN-Habitat works directly with local government partners (thereby building their capacity as well as reducing costs) and lastly and most importantly, because of strong community involvement which helps reducing costs significantly. This is relevant to all components of the project.

Cost effectiveness through community contributions

The project will be implemented in close partnership with communities and local government institutions. This model of partnership will allow significant cost reduction as communities and local partners will provide significant in-kind and in-cash support. For example, communities provide in-kind contributions by helping in digging and other excavation works and as well as in basic mason/carpentry works. Further, community members are contracted and trained to provide semi-skilled and skilled services. This is particularly relevant for component 3 where communities will be directly engaged in the construction through community agreements and government agencies and other stakeholders will provide engineering and monitoring (for technical, social and environmental compliance).

Cost effectiveness of technical options

Traditionally UN-Habitat projects have shown high technical cost-effectiveness – for example basic services projects related to water supply and sanitation are often delivered at a mere 30 per cent of costs when compared to similar projects implemented by IFIs. A project example is UN-Habitat's MEK WATSAN project in Lao PDR, Cambodia and Viet Nam. The evaluation

²⁷ WB (2014) Water Supply and Sanitation in Lao PDR. Online: <http://www.wsp.org/sites/wsp.org/files/publications/WSP-LaoPDR-WSS-Turning-Finance-into-Service-for-the-Future.pdf>

²⁸ See also the MEK-WATSAN evaluation report above.

report²⁹ showed that UN-Habitat was able to deliver very competitively priced basic services to communities. As for resilient design of basic infrastructure, the initial costs are estimated to be around 30-50 per cent higher than non-resilient design. However, the infrastructure is expected to last at least twice as long (thus is more sustainable and cost effective) as non-resilient designed infrastructure because it will still be accessible during and after every flood, storm and drought. As for the costs per infrastructure type, this will vary significantly depending on the location of such an intervention (i.e. remoteness, size, terrain, etc.) This is particularly relevant to component 3 of the project, as US\$2.8m will be invested in resilient infrastructure.

Alternative technical adaptation/resilience options to achieve the same intended outcome under component 3 will be assessed during the project looking at cost-effectiveness and feasibility. Depending on the climate change vulnerabilities and disaster risks identified per community (or group of communities) appropriate adaptation/ resilience measures will be identified. From these optional measures, the most (cost) effective and feasible one(s) will be selected based on location, resource availability, etc., and other community-based criteria. Therefore it is difficult to already compare possible technical adaptation/resilience measures with alternatives at this stage. However, cost-effective strategies are discussed below against alternative options.

Table 6: strategies/asures and alternative options

Strategy/measure	Comparison with alternative
Large-scale advantage: the project will pursue large scale procurement where possible	Procurement per community/sub-project will be more costly
Community involvement/ownership: the project will aim maximizing in-kind contributions through community-based planning processes.	Although costs could be avoided by not thoroughly involving all communities in planning processes, the risk will be low in-kind community contributions
Spring/surface and gravity feed water systems: the project will pursue low-cost water supply systems where possible	Underground water sources or building small dams could be more costly
Gravity feed or rainwater harvesting irrigation systems: the project will pursue low-cost irrigation systems where possible	Irrigation systems with pumps could be more costly
Build WASH facilities with Building Back Better (BBB)/resilience principles;	Non resilient designed facilities may not be accessible anymore during and after every flood, storm and drought, which will make it more expensive on the long run
Serve more people: assessing the cost of upgrading critical or large infrastructure (e.g. schools and health centers) - may be less expensive than to construct new small-scale infrastructures	Not assessing the option of upgrading infrastructure may result in cost-ineffectiveness

²⁹ UN-Habitat (2013) External End Evaluation of the MEK-WATSAN Roll-Out Phase 1. Prepared by: Mr. Geoff Mills Ms Hien Nguyen Thi Ms Saykham Thammanosouth Ms Somoline Sorn

D. Consistency with national or sub-national sustainable development strategies

This project is consistent with national socio-economic priorities,³⁰ national climate change priorities,³¹ and national disaster risk management priorities.³²

The 8th Five-year National Socio-economic Plan can be regarded as the leading national development strategy. As for climate change, the National Climate Change Action Plan 2013-2020 (2013) can be seen as most relevant as it builds on the National Strategy on Climate Change of Lao PDR (2010) and the National Adaptation Programme of Action (NAPA) (2009). In late 2015, Lao PDR submitted its Intended Nationally Determined Contribution (2015) (INDC), which is in line with the National Climate Change Action Plan. The INDC identified 5 key sectors: 1) agriculture, 2) forestry & land use, 3) water resources, 4) transport & urban development and 5) public health. The focus of projects and programmes under the last three sectors are especially relevant for this project. Besides climate change and disaster management, the project is also consistent with sectoral plans and strategies related to water supply and sanitation,³³ water resource management³⁴ and land management and land use planning.³⁵

MoNRE is currently in the process of approving a work plan for developing a combined national water resource and land management policy/plan. This is an opportunity for this project to integrate climate change concerns and priorities in the new policy/plan (as proposed under output 1.3: policy notes for updating national plans on climate change and land and water management).

As for the sub-national/local/settlements levels, the project aligns with the provincial and district's 5-year socio-economic development plans. These plans will be updated at the provincial and district level in 2019, which will also be an opportunity for this project to integrate climate change concerns and priorities in these plans (as also proposed under output 1.3: updated provincial and district development plans)

For an overview of priority measures of above plans and strategies see Annex 5: Analysis (relevance) of national strategic priorities.

Table 7: Analysis of national socio-economic, climate change and disaster management priorities. The table shows overlap measures among national plans and strategies. As these are national priority measures (coloured in red), this project also focuses on (but not limits itself to) these priority measures. Early warning systems are not covered in this project because large ADB and UNEP projects already focus on this.

³⁰ The eighth Five Year National Socio-economic Plan (2016-2020) with a Vision to 2030 (2015)

³¹ The National Intended Nationally Determined Contribution (2015); The National climate change action plan 2013-2020 (2013); The National Strategy on Climate Change of Lao PDR (2010); The national Adaptation programme of action (2009);

³² The national disaster management plan (2011)

³³ Water Supply and Sanitation Strategy for Emerging Towns (2013-2020) (2012)

³⁴ National Indicative Plan (NIP) (2011-2015) for implementation of the IWRM-based basin development strategy (2012)

³⁵ PLUP (Participatory Land Use Planning Policy)

Measure	8 th Five Year National Socio-economic Plan	National Strategy on Climate Change	Climate change action plan 2013-2020	National Adaptation Programme of action	Intended Nationally Determined Contribution	National Disaster Management Plan
<input type="checkbox"/> Providing sustainable access to safe water and improved sanitation	X	X	X	X	X	
<input type="checkbox"/> Develop plans, policies, laws to manage natural resources and improve capacity (incl. land/water)	X		X	X	X	X
<input type="checkbox"/> Develop plans for urban and rural development with good environmental preservation	X	X	X			
<input type="checkbox"/> Harmonize and link policies on water resources, food security, energy security and clean and safe city	X					
<input type="checkbox"/> Promote 4R waste management and manage toxic waste and waste water	X	X	X			
<input type="checkbox"/> Establish comprehensive early warning system	X	X	X	X		X
<input type="checkbox"/> Developing climate change scenarios for the river basins/Mapping of flood-prone areas/risk areas	X	X	X	X	X	X
<input type="checkbox"/> Downscaling climate and hydrological models to a watershed level		X				
<input type="checkbox"/> Climate-proofing the most vulnerable (urban) existing infrastructure to protect the current assets		X	X	X	X	X
<input type="checkbox"/> Building storm surge barriers for wastewater treatment plants and landfills; Public health sector	X	X	X			
<input type="checkbox"/> Incorporating current climate change concerns into ongoing health programmes and measures		X			X	
<input type="checkbox"/> Study, design and build multi-use reservoirs in drought prone areas			X	X		
<input type="checkbox"/> Conservation and development of major watersheds			X	X		
<input type="checkbox"/> Build and improve flood protection barriers to protect existing irrigation systems			X	X		
<input type="checkbox"/> Expand epidemic disease diagnostic laboratories local levels to provide disease epidemic information			X	X		
<input type="checkbox"/> Prevention and treatment of water borne diseases			X	X		
<input type="checkbox"/> Promote appropriate structural and non-structural mitigation measures into national building codes						X
<input type="checkbox"/> Flood management: develop a comprehensive flood management strategy and specific flood management plans for priority areas			X			
<input type="checkbox"/> Drought management: assess drought risk and impacts, existing policies and programs; incorporate drought mitigation into priority river basin and sub-basin plans;			X			

For a detailed explanation of the project compliance with relevant plans and strategies, please see the Environmental and Social Management Plan in Annex 8

E. Compliance with relevant national technical standards

All project activities are in compliance with existing rules, regulations, standards and procedures endorsed by the government, as shown in the table below. In addition, compliance with tools are discussed below.

Table 8: Project compliance with relevant rules, regulation, standards, procedures and tools to project activities

Activities	Relevant rules, regulations, standards and procedures	Compliance & procedure
Climate change vulnerability and disaster risk reduction assessments	<p>UN-Habitat Vulnerability assessment</p> <p>The UN-Habitat 'Planning for climate change toolkit can be accessed online here:</p> <p>http://unhabitat.org/books/planning-for-climate-change-toolkit/</p> <p>Examples of vulnerability assessment can be accessed online here:</p> <p>http://unhabitat.org/series/climate-change-vulnerability-assessments/</p> <p>A video of a vulnerability assessment in Sihanoukville, Cambodia, can be viewed online here:</p> <p>https://www.youtube.com/watch?v=vAoorDDRkoY</p>	<p>Lao PDR does not have a standard procedure for conducting vulnerability assessments.</p> <p>The project will conduct vulnerability assessments in compliance with processes and procedures described in the UN-Habitat 'Planning for Climate Change' toolkit.</p>
Development of maps, including climate change and disaster risks	<p>Lao PDR Urban Planning Law</p> <p>Reference is made to Law No.: 03-99/NA, dated 1999</p> <p>Participatory Land Use Planning (PLUP)</p> <p>Planning for climate change guidelines</p>	<p>The project will develop provincial, district and community maps in compliance with the Lao PDR Urban planning law</p> <p>UN-Habitat will cooperate closely with the Department of Land Management Authority (DLMA) of MoNRE to develop land use maps/plans.</p> <p>The project will align with the Participatory Land Use Planning (PLUP) principles and procedures, which are in line with the planning for climate change guidelines, to comply with Lao participation standards</p>
Water resources mapped, including climate change and disaster risks	<p>Lao PDR Water and Resource Law</p> <p>Reference is made to Law No.: 02-99/NA, dated 1996</p>	<p>The project will map water resource in compliance with the Lao PDR Water and Resource Law.</p> <p>UN-Habitat will cooperate closely with the Department of Water Resource and Environment Administration (DWREA) of MoNRE to map water</p>

		resources
Local development plans and settlement/community planning	<p>Government's '3-build' or 'Samsang' process of decentralisation</p> <p>Provincial and district socio-economic development plans (which are in line with the National 5-year socio-economic development plan;</p> <p>Community-based planning and people's process</p> <p>Community planning tools can be accessed online here: http://unhabitat.lk/wp-content/uploads/2015/01/PeoplesProcess.pdf</p> <p>http://unhabitat.org.ph/category/knowledge-hub/</p> <p>http://www.bd.undp.org/content/bangladesh/en/home/operations/projects/poverty_reduction/urban-partnerships-for-poverty-reduction--uppr-.html</p>	<p>The project will align and thereby strengthen the government's '3-build' or 'Samsang' process of decentralisation, whereby the local government institutions will play a key role in planning, developing and implementing the community infrastructures in close consultation with the communities and other stakeholders.</p> <p>The project will integrate the 'information' from the vulnerability assessments in compliance with procedures to update/review local social-economic development plans.</p> <p>Community-based planning will take place in compliance with the people's process principles and the tools below, if applicable.</p>
<p>Development of small-scale/ community Infrastructure investments projects and activities.</p> <p>These include water supply systems and sanitation (see also below), irrigation systems, solar pumps, water harvesting systems, small dams, wastewater treatment systems</p>	<p>Lao PDR Construction Law</p> <p>Reference is made to Law No.: 159/LPDR, dated 2009</p> <p>Lao PDR Building Codes and Building Control</p> <p>Reference is made to Rule No. 01-13/MPWT, dated 2013</p> <p>Building Back Better Principles Guideline for Shelter and Sanitation</p> <p>Reference is made to Technical guideline, disseminated by MPWT 2012</p> <p>The Lao National Unexploded Ordnance Programme</p> <p>Reference is made to IMAS – International Mine Action Standards, the National</p>	<p>The project will develop community maps/plans and small-scale/ community Infrastructure investments projects and activities in compliance with Lao PDR Construction Law, the Lao Building Codes and Building Control, unexploded ordnance clearance standards and the Lao PDR Initial Environmental Examination (IEE) and Environmental and Social Impact Assessment (ESIA).</p> <p>UN-Habitat will apply Building Back Better Principles to infrastructure development where possible.</p> <p>UN-Habitat provided a list of the target villages to UXO Lao to check if there is a risk of explosions. Based on this, NRA is allow permission (or not) to start infrastructure projects. If there is a risk UN-Habitat will cooperate with UXO Lao to conduct a survey and if needed, clear the risk areas.</p> <p>UN-Habitat will submit a list of investment Projects and Activities to MoNRE as the reference for the screening process to determine which level of the Environmental Impact Assessment the Project Owner should conduct.</p> <p>Investment Projects and Activities that are</p>

<p><u>Regulatory Authority (NRA) for the UXO/Mine Action and UXO Lao, which adopted SOPs – Standard Operating Procedures</u></p>	<p>anticipated to cause insignificant or minimal environmental and social impacts are required to conduct an Initial Environmental Examination (category: Group 1³⁶ as per the ESIA)</p>
<p>Lao PDR Initial Environmental Examination (IEE) and Environmental and Social Impact Assessment (ESIA)</p>	<p>An Environmental and Social Impact assessment is only required for projects that are anticipated to cause significant or major environmental and social impacts (category: Group 2³⁷ as per the ESIA)</p>
<p>Reference is made to Article 21 of the Law on Environmental Protection (Amended) No. 29/NA, dated 18 December 2012;</p>	<p>UN-Habitat anticipates that only investments in small-scale (community-level) infrastructure will be made. Therefore, the project will fall under category group 1 or in none of the categories listed in the Ministerial instructions on Initial Environmental Examination.</p>
<p>Reference is made to the Government Decree on the Establishment and Function of the Ministry of Natural Resources and Environment No. 435/PM, dated 28 November 2011.</p>	<p>After the screening process, if the Investment Projects and Activities are categorized as Group 1, UN-Habitat will prepare an IEE Report in strict compliance with the process and conditions specified in the Ministerial Instruction on Initial Environmental Examination of the Investment Projects and Activities, the relevant technical guidelines and the relevant laws and regulations.</p>
<p>Reference is made to the Government Decree on Environmental Impact Assessment No. 112/PM, dated 16 February 2010.</p>	<p>In case the Investment Projects and Activities are not categorized in any group in the List of Investment Projects and Activities, the Provincial Department of Natural Resources and Environment shall apply a separate criterion to the relevant information as specified in the investment application to conduct further screening which level of the Environmental Impact Assessment such Investment Projects and Activities shall conduct or the Environmental Impact Assessment is not needed at all.</p>
<p>Reference is made to Instruction on Initial Environmental Examination (IEE) of the Investment Projects and Activities No.8029/MONRE dated 17 December 2013</p>	<p>In case any Investment Projects and Activities are screened as not being required to conduct any Environmental Impact Assessment, the Provincial Department of Natural Resources and Environment may impose certain conditions relating to the environmental and social management and mitigation measures on the Project Owner.</p>
<p>Reference is made to Instruction on Environment and Social Impact Assessment of the Investment Projects and Activities No.8030/MONRE dated 17 December 2013</p>	<p>The Project Owner shall submit final version of the</p>

³⁶ According to Ministry of Natural Resources and the Environment Ministerial Instruction on Environment and Social Impact Assessment of the Investment Projects and Activities (No.8030/MONRE), Group 1 is defined as “Investment Projects and Activities that are anticipated to cause the insignificant or minimal environmental and social impacts; therefore, generally required to conduct an Environmental and Social Impact Assessment;

³⁷ According to the above Ministerial Instruction, Group 2 is defined as Investment Projects and Activities that are anticipated to cause the significant or major environmental and social impacts; therefore, generally required to conduct an Environmental and Social Impact Assessment.

	<p>Environmental Impact Assessment Guidelines dated November 2011</p>	<p>IEE Report to the Provincial Department of Natural Resources and Environment; Within 10 business days, the Provincial Department of the Natural Resources and Environment shall review the IEE Report to ensure that the Initial Environmental Examination is correct and comprehensive and shall notify the Project Owner of the result from the examination.</p> <p>The review process of the IEE Report shall be completed within 40 business days from the date that the Project Owner submits every documents required above to the Provincial Department of Natural Resources and Environment; provided that such timeline will not include the period of time that the Project Owner takes to revise the IEE Reports pursuant to the comments gathered during the review process.</p>
Water supply	<p>Lao PDR Water Supply Law</p> <p>Reference is made to Law No.: 04/NA, dated 2009</p> <p>National Standard on Quality management for drinking water and household water supply</p> <p>Reference is made to Decision No. 1371/MoH, dated 2005</p> <p>MDG/SDG technical standards for water supply</p>	<p>The project will supply water in compliance with the water supply law, the National Standard on Quality management for drinking water and household water supply and MDG/SDG technical standards for water supply.</p> <p>Building Back Better Principles will be applied where possible.</p> <p>UN-Habitat follows the SDG technical standards for water supply, which are more strict (piped water versus water pumps) than the national standards.</p> <p>Water tariffs will be applied to ensure sustainability of the system. The community always co-decided how high the tariff will be.</p>
Sanitation systems	<p>Lao PDR Hygiene Law</p> <p>Reference is made to Law No.: 08/NA, dated 2004</p> <p>MDG/SDG technical standards</p>	<p>The project will construct sanitation facilities in compliance with the Lao PDR Hygiene law and MDG/SDG technical standards for sanitation</p> <p>Building Back Better Principles will be applied where possible.</p> <p>UN-Habitat follows the SDG technical standards for sanitation, which are more strict than the national standards.</p>

The Mekong River Commission (MRC) is in the process of developing a transboundary environmental impact assessment (TbEIA) procedure for assessing proposed activities with potential transboundary environmental impacts in the Lower Mekong Basin. Outputs will be best practices and guidelines to support members to adapt their national Environmental Impact Assessment (EIA) legislation. The MRC recommendations are expected to affect Lao in its flood management plan. However, recommendations have not been published yet. UN-Habitat will monitor the impact of MRC recommendations on Lao PDR legislation.

F. Other funding sources

National government and local authorities will support the project through in-kind contributions and ongoing infrastructure initiatives will be adjusted to align with the project.

This proposal has been developed taking into considerations of in-depth consultations with UNDP and IFAD. The relationship with these two organizations is that of complementarity. Firstly, care has been taken that there are no overlaps of the target settlements. Secondly, UNDP focus is restricted to the village level, focusing on rural small scale infrastructure and ecosystem based adaptation, while UN-Habitat, besides focusing on entirely different settlements, will additionally focus on components 1.2 and 1.3 (vulnerability assessments, plan development and integration into existing plans), which will feed into UNDP's work. UNDP provides full access to the vulnerability assessments conducted under their project.

IFAD will also gain from the work done under components 1.2 and 1.3, and will complement with its work on enhancing agricultural productivity. Thirdly, both UN-Habitat and IFAD will benefit from UNDP's on-going work on revisions of guidelines undertaken for EIA and Initial Environmental Examination (IEE) with Department of Environment and Social Impact Assessment (DESIA), MoNRE. Besides, UN-Habitat will use the recently developed Public Involvement Guidelines (PIG), in sync with EIA and IEE. The PIG has been developed by UNDP in partnership with DESIA. In short, the three agencies will share tools and maximise synergy.

For an overview of relevant projects in the same provinces see Annex 3.

G. Capturing and disseminating lessons learned

A dedicated component (4) addresses knowledge management. Whilst this provides the cornerstone for capturing and disseminating lessons learned, other project components directly contribute to knowledge management mechanisms and dissemination of lessons learned from local to national and to international levels. The knowledge management component will capture the practical experiences of the field and feed into the policy decision-making besides sharing the project achievements to a wider external audience.

At the local level, a participatory approach (involving communities, local authorities and students) will lead to increased local knowledge on planning, constructing and maintaining resilient infrastructure. Project demonstration sites will contribute, from the start and in an ongoing way, to sharing lessons and training through local disseminators and tools and guidelines. The project will also use a participatory monitoring process, which will enable the

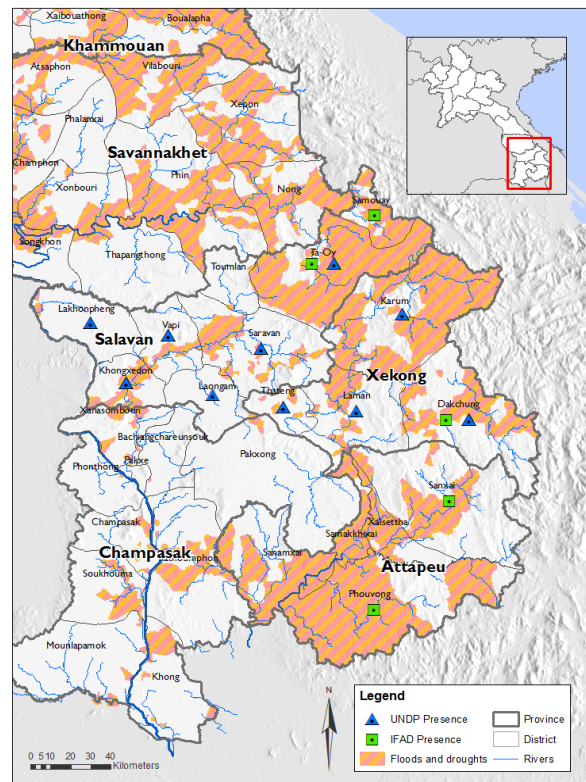


Figure 11: UNDP and IFAD presence at district level in Saravane, Xekong and Attapeu

beneficiary communities under component 3 to work directly with the project's M&E officer, to highlight issues in delivery and to strengthen adaptation benefits, including in replication and sustaining the project's gains.

At the national level, other vulnerable regions in Lao PDR will be able to draw from lessons learned through this project. Information will be consolidated in reports and the tools and guidelines will be for developing resilient (and gender, disabled and ethnic minorities sensitive) infrastructure. A direct linkage will be established, through the partnering departments of the various line ministries at the district and provincial levels, with the ministries at the national level facilitating countrywide dissemination.

As part of the sustainability/exit strategy, the project will develop participatory monitoring processes, which will trigger institutional learning processes, participation, knowledge exchange and replication and scale-up of good practices.

At the international level, other climate change related projects, especially related to human settlement, resilient infrastructure and land and water management, may benefit from this project. The Knowledge Centre on Cities and Climate Change (in short: K4C) provides a knowledge management platform for Climate Change and Human Settlements interventions. It is proposed to use this platform (as well as UN-Habitat websites) to disseminate the lessons learned from this project.

Table 9: Components/activities, learning objectives & indicators and outputs

Components/ activities	Learning objectives and indicators	Knowledge Products
1.1. – Vulnerability assessments	Understanding of climate change hazards and socio-economic vulnerabilities enhanced. Number of local vulnerability assessments reports that are available/processed to national government agencies for policy making.	Climate Change Vulnerability Assessments: 3 Provincial Assessments 8 District Assessments Guidelines for replication of vulnerability and risk assessments for other areas
1.2 – National Capacity Building	National, provincial and district officials' capacities strengthened to plan and implement community-level adaptation projects. Number of government officials trained Number of government officials that apply their knowledge at the community level.	Project tool / guidelines comprising of assessment and planning approach, resilient infrastructure, and technical standards, environmental and social safeguards and community action planning.
1.3. Climate change action plans	Decision making tools will improve local planning Number of government entities on provincial and district level that developed initial climate change action plans and adaptation options.	Provincial and District plans and maps
2.1 Community Capacity Building and Action Planning	Community to better understand climate change, to develop adaptation options and to agree on action. Number of actionable plans developed	Community guidelines, community action plans, documentation of action planning.
3.1 Climate resilient community infrastructure	The development of resilience enhancing community projects may inspire other communities. Technologies will be made available for replication. Number of people that have access to	Designs of infrastructure Community monitoring processes (communities ensuring that infrastructure meets their needs and is fully

	improved or newly constructed resilient infrastructure	compliant with set standards) Demonstration sites
4.1. Knowledge Management, Advocacy and Monitoring.	Project activities and results are captured and disseminated through appropriate information for the beneficiaries, partners and stakeholders and the public in general. Making project implantation more transparent, ensuring that lessons learned are captured and made accessible.	Leaflets for beneficiaries Promotion of activities and results on the web including social media. Popular project reports Video if demand exists from national partners

The integrated knowledge management approach as demonstrated in Table 9 will result in tools, guidelines, trained officials, demonstration sites. In particular, the close collaboration with key stakeholders at national and provincial levels, the documentation and production of guidelines will ensure the sustainability of the approach.

The knowledge management strategy will be further developed as appropriate, which will clearly identify the goals and corresponding targets and strategies to ensure that the process is sustained. The strategy will also outline use of various tools, s.a., social media, newsletters, documentaries, etc. to capture and disseminate the knowledge gained as a direct consequence of project interventions. Besides sensitisation workshops for local journalists will ensure that a sustained focus on climate change adaptation measures.

H. The consultation process

In Lao PDR, the UN-Habitat has a robust portfolio of projects focusing on provision of basic services to the poor through community-based interventions as well as issues related to disaster response, climate change, renewable energy, land management and decentralization of basic services.

UN-Habitat has supported the preparation of integrated urban planning and institution building for local authorities and introduced community participation models for in-situ upgrading. UN-Habitat is working closely with the Ministry of Public Works and Transport, Ministry of Health, Ministry of Planning and Investment and Ministry of Agriculture and Forestry and its departments at the provincial and district levels on community-based water supply and sanitation issues in urban, peri-urban, emerging urban towns and rural areas across Lao PDR.

UN-Habitat is also partnering with several multilateral partners, focusing on climate change issues, and in the process conducting assessments to improve existing water and sanitation infrastructures, schools, medical dispensaries and community resilience through design/structural improvements of shelters of the poor and vulnerable households. Climate change vulnerability assessments of settlements have been conducted through the lenses of exposure, sensitivity and adaptive capacity to change to plan and design climate change adaptive interventions.

Three preparation/fact finding missions for the development of this concept took place in Lao PDR between 16 and 26 November 2015, 19 and 28 May and 10 July and 13 July. The table below provides an overview of stakeholders consulted related to components of the environmental and social policy. For an overview of consultation objectives, outcomes and conclusions, see Annex 6.

Table 10: Stakeholder consulted and checklist of Environmental and social policy components related to the stakeholders.

STAKEHOLDERS	Checklist of environmental and social principles
<i>Ministry of Natural resources and Environment</i>	<i>Protection of Natural Habitats Climate Change</i>
Ministry of Labour and social welfare	<i>Protection of Natural Habitats Climate Change</i>
<i>Mekong River Commission</i>	<i>Protection of Natural Habitats Climate Change</i>
UNDP	<i>Climate Change</i>
UNICEF	<i>Access and Equity; Gender Equity and Women's Empowerment Public Health</i>
UN WOMEN	<i>Gender Equity and Women's Empowerment</i>
UNEP	<i>Protection of Natural Habitats Climate Change</i>
IFAD	<i>Indigenous Peoples</i>
UXO Lao	<i>Public Health</i>
ADB	<i>Climate Change</i>
OXFAM	<i>Access and Equity; Marginalized and Vulnerable Groups; Gender Equity and Women's Empowerment; Indigenous Peoples Public Health</i>
CARE	<i>Access and Equity; Marginalized and Vulnerable Groups Indigenous Peoples Public Health</i>
<i>Health Poverty Action</i>	<i>Access and Equity; Marginalized and Vulnerable Groups Indigenous Peoples Public Health</i>

For a participants list of the AF workshop held in Vientiane, Lao PDR on 20 July 2016 see annex 6.

A field visit was conducted by UN-Habitat staff and consultants in October 2015. This field visit identified the particular high degree of vulnerability and identified priority needs to build the resilience of communities. The visit included interviews with provincial and district authorities and mass organisations. Several target settlements were visited in all 3 provinces and community consultations were organised. Also, a regional consultation was held in Attapeu, which involved representatives from selected communities, provincial and district officials to review the findings of the consultation process and finalise options for small scale infrastructure interventions, capacity building and training needs. In April-May 2016 UN-Habitat consulted the different ethnic groups targeted in this project with the purpose of understanding ethnic-specific vulnerabilities and needs. An overview of the results is presented in Figure 10 (Ethnic-specific vulnerabilities and needs of target groups) in section B of this proposal. On 20 July 2016, a consultation to review this proposal took place with relevant government officials and representatives of several development partners. For a list of attendees, please see annex 6.

I. Justification for funding requested

The project strongly addresses climate resilience of the most vulnerable communities in a region of Lao PDR where numerous underlying vulnerabilities predispose communities to climate vulnerability. Comparing the project cost and benefits to a business as usual scenario, the community/public costs that are currently being borne as a result of health care costs, low productivity and losses due to storms, floods, landslides and droughts and future costs of climate change are well in excess of the amount of the proposed project. UN-Habitat is well placed to execute the proposed project based in its human settlements related climate change work in the Asia-Pacific Region and its strong presence in Lao PDR with a history of strong partnerships with national and sub-national government agencies, a wide range of other stakeholders and most importantly communities with vulnerabilities.

Regarding components 1 & 2 (Activities to reduce institutional and community-level vulnerability), intervention costs are needed to effectively execute component 3 and to ensure sustainability of the project and scaling-up potential at the national (enabling planning and governance framework) and community level (to plan, construct and maintain resilient settlements and infrastructure systems).

The alternative adaptation scenario to Component 1 would be to partner with government agencies such as the Water Utility under the Ministry of Public Works but without any capacity building activities; including developing a tool, staff training, a national inception workshop, training of facilitators and local workshops. Under such a scenario, there is an increased risk that capacity in government, in terms of skills, guidelines/resources and time, would be sufficiently limited that it would risk the successful implementation of the project. This is especially true at the provincial/local level, where provincial government departments have critical shortages of human resources – even where there are guidelines and directives in place at the national level.

The alternative adaptation scenario for Component 2 relates to the alternative scenario for Component 3 (see below). In this case, the alternative would be to not train communities, but rather to see them as passive beneficiaries, who are the end users of the small-scale water infrastructure that would be designed and constructed by external engineering contractors. While the adaptation benefits in this scenario (described below) would be similar, the socio-economic benefits would be fewer and the environmental and social risks (and thus requirement for mitigation measures) would be higher, which would also use project funds and reduce the number of beneficiary villages.

In the alternative adaptation scenario for Component 2, the process of planning, constructing and maintaining climate and disaster resilient water, drainage, sanitation, and health related infrastructure systems and to improve hygiene standards would be done either by UN-Habitat directly, or by an external planning firm or organisation, or by the engineering contractor themselves. Under this alternative scenario, community engagement would be limited to limited consultation workshops, rather than an engagement process, whereby the communities themselves implement the interventions. In the alternative scenario, there would be a greater chance of selecting small scale infrastructure adaptation options that are not in line with local needs and as such create greater potential for mal-adaptation. In relation to output 2.1.3 any guideline development would relate to a third party contractor. This would result in reduced replicability and sustainability, because under the proposed scenario, the guidelines would be replicable both for future works in the target community and for other communities in Laos (and potentially in other countries, with modification). In the alternative scenario, however, there would be no ownership of the implementation guidelines, and while they would result in

satisfactory implementation, their replicability would be reduced, as they would relate to a specific contractor who may not be employed in the future.

As for Component 3 (concrete adaptation activities to enhance resilient infrastructure systems in rural and emerging urban human settlements), the amount requested (US\$2,8 million) is needed to implement interventions in 100 percent of the vulnerable settlements in the provinces of Saravane, Sekong and Attapeu that are extremely poor (>60 percent of the settlements lives in extreme poverty) in combination with a high percentage of ethnic minorities, no or limited access to basic services, and regular occurrences floods, droughts, landslides and climate related diseases. Although depended on the vulnerability assessments and community priorities, the project aims at providing new resilient water, drainage and sanitation related infrastructure to 20,000 people and climate and disaster proofing of existing infrastructure or implement other appropriate measures mentioned under Part II – A, benefitting another 27,000 people (thus 47,000 people in total).

The approach used under the proposed scenario, where possible, will be community agreements. As described above, under the alternative adaptation scenario, the small-scale infrastructure options identified under Component 3 would not be implemented by communities themselves, but would be implemented by external contractors. Therefore, rather than being a community-driven, small scale infrastructure approach, the alternative adaptation scenario for Component 3 would be a large-scale, infrastructure, contractor-led, community as beneficiary scenario. In this case, the community's engagement in identifying and implementing the infrastructure is greatly reduced, resulting in a greater chance of mal-adaptation under the alternative scenario, because inappropriate infrastructure options may be chosen, and because the communities have a reduced stake in their implementation. In addition, under the proposed scenario, community agreements would mean that a number of social and economic co-benefits occur. In the proposed scenario, communities can be paid for their labour, meaning that there is an employment/livelihood component, while also developing the skills (as a result of Component 2) to be able to operate and conduct basic maintenance of the small-scale infrastructure. Finally, the alternative adaptation scenario, the cost of implementing the adaptation measures under Component 3 would be much greater, meaning that the project would reach fewer settlements and as such the number of beneficiaries would be greatly reduced.

The alternative adaptation scenario would also create a greater level of environmental and social risk. The proposed adaptation scenario involves community agreements, meaning that the communities own the process and have additional incentives to reduce the chance of negative environmental and social impacts that will damage them. In the alternative adaptation scenario, the construction of larger scale infrastructure results in a greater chance of negative environmental and social impacts. Considering the risk categories in the Adaptation Fund's Environmental and Social Policy, the alternative adaptation scenario contains greater risk in terms of climate change, as large infrastructure installation is likely to result in emissions, land and soil conservation and protection of biodiversity are also likely to be affected, due to much larger scale excavation and plant required. There are also equity of access/gender/vulnerable groups considerations because under the alternative adaptation scenario it would be harder to implement measures to ensure equality of access.

A short overview of impact of AF funding compared to no funding (baseline) related to the project components is provided in the table below:

Table 11: Overview of impact of AF funding compared to no funding (baseline) related to the project components.

Outcomes	Baseline (without AF)	Additional (with AF)	Adaptation Alternative
<p>Outcome 1.1.</p> <p>Reduced vulnerability at national, provincial and district level to climate-related hazards and threats</p>	<p>National government and local authorities don't have the tools to analyze and identify climate change vulnerabilities and disaster risks at the local level</p>	<p>National government and local authorities will have used tools to identify climate change vulnerabilities and disaster risks at the local level</p>	<p>National government and local authorities implement adaptation measures, but do so using existing knowledge, tools and guidelines, and without the information provided by vulnerability assessments</p>
<p>Outcome 1.2.</p> <p>Increased awareness on resilience building of human settlements and infrastructure systems as a result of enhanced institutional capacity</p>	<p>Planning practices, policies & legislation and budgets don't support the national government and local authorities to implement measures to reduce climate change impacts (floods, droughts, landslides, diseases) to human settlements and infrastructure systems</p>	<p>National government and local authorities have a supporting planning and governance framework in place to implement measures to reduce climate change impacts (floods, droughts, landslides, diseases) to human settlements and infrastructure systems, also after project termination.</p>	<p>Replication and scale-up is much more time-consuming and resource intensive, because local tools/guidelines and skills have not been generated, and external contractors can not necessarily be re-engaged</p>
<p>Outcome 1.3.</p> <p>Resilience building measures identified by provincial and district authorities which can feed into local development plans, emphasizing community climate change resilience, disaster preparedness, land use planning, water resource management and infrastructure development</p>	<p>National government and local authorities will not be able to respond to climate change impacts because local development plans do not include specific action plans (and allocated budgets) to reduce these impacts</p>	<p>Climate change action plans are developed include disaster risk sensitive land use and water components (e.g. maps), allowing national government and local authorities to respond to climate change impacts</p>	<p>Resilience building measures are implemented, but without the capacity building activities, and with communities as receiving beneficiaries, rather than as active stakeholders</p>
<p>Outcome 2.1</p> <p>Community capacity to plan, construct and maintain resilient water-, drainage-, sanitation-, related infrastructure systems and to apply improved hygiene standards</p>	<p>Communities/households are not able to plan, construct and maintain resilient water-, drainage-, sanitation-, and health related infrastructure systems to reduce climate change impacts and to use improved hygiene</p>	<p>Communities/households are able to respond to climate change impacts by planning, constructing and maintaining resilient water, drainage, sanitation, and health related infrastructure systems and to use improved hygiene</p>	<p>Linked to Output 3 Habitat or engineering contractor planned interventions, resulting in lower level of ownership for communities and fewer co-benefits, such as employment</p>

strengthened	standards to avoid climate related diseases.	standards.	
Outcome 3.1. 47,000 people have access to storm, flood, landslide-, drought- and disease resilient water, drainage, sanitation and health related infrastructure systems	The poorest and most vulnerable people in Lao PDR will continue to suffer (health issues/mortality; costs caused by health issues and loss of assets) due to climate change impacts, also negatively affecting national development goals.	The wellbeing/health/safety of the poorest and most vulnerable people in Lao PDR will be improved, also positively contributing to national development goals.	Large-scale, infrastructure, contractor-led, community as beneficiary scenario, which would lead to adaptation benefits for fewer people with the same project cost. Greater chance of negative social and environmental impacts.
Outcome 4.1. Project implementation is fully transparent. All stakeholders are informed of products and results and have access to these for replication.	No knowledge management and advocacy and M & E system is in place to ensure the project is fully transparent and lessons are recorded	The knowledge management and advocacy and M & E system in place will ensure the project is fully transparent and lessons are recorded	Not relevant

J. Sustainability of the project

The project aims to achieve a long-lasting impact through a number of measures. The project brings together key stakeholders from ministries at the national level and the respective counterpart departments at the provincial level (e.g. public works, health) and the water utility. Key staff will be trained in sustainable technologies, and where needed in technical standards and environmental and social safeguard measures. The officials will support the community driven process (through facilitation and technical support). Tools will be provided and localized as part of the project. The emphasis on technical training, knowledge generation and dissemination is hence a key component of achieving sustainability. The codification of technology, processes and the engagement at the policy and planning level will further strengthen the sustainability.

Infrastructure sustainability, i.e. durability and maintenance, will be directly and indirectly promoted through the strong engagement of communities. Communities will be actively engaged in the prioritization and design of infrastructures, ensuring that these are appropriate and truly needed. Secondly, communities will be engaged in the construction and are jointly responsible for monitoring the construction process and the compliance with technical standards. Thirdly, the community groups that will be set up or strengthened in the process will be responsible for maintaining some of the infrastructure (and will have the capacity to maintain most of it given their training and direct engagement in its construction). Fourth, communities are expected to be much more closely engaged with utilities and the provincial Departments of Public Works and hence have more access to request repairs which are beyond the capacities of the communities themselves. Formal arrangements with the responsible government agencies will also be sought in order to ensure long-term infrastructure maintenance.

The project will seek to establish a pro-poor tariff water water supplied by infrastructure constructed/restored under the project. This is formed as an agreement between the community

and the local water utility. Prior to establishing a tariff, a 'willingness to pay' study is carried out, which establishes how much communities are able to pay. Such a tariff increases the incentive for communities to maintain their facilities while generating a revenue stream that can be used for operation and maintenance.

UN-Habitat has been working closely with the local governments and utilities to set up pro-poor water tariff in other small towns. The lower pro-poor water tariff is possible due to cost-effectiveness of the project, or in other words that the project investment costs are substantially lower compared to similar infrastructure work carried out by other actors. For example, in Attapeu, UN-Habitat has established a water supply system in Sanxay district, with a pro-poor tariff of 1,700 Lao Kip per cubic metre of water. The same water utility in the neighbouring town of Samakhixay has a tariff of 4,000 Lao Kip per cubic metre. UN-Habitat set tariff is thus over 2.3 times lower. Similarly in one of the central provinces, in Vilabouly town, UN-Habitat's project has set up a tariff of 1,400 Lao Kip per cubic metre while the water utility in another neighbouring town has a tariff of 2,800 Lao Kip per cubic metre, which is twice the tariff set by UN-Habitat. The pro-poor tariff helps the poor families to access water supply and at the same time the tariff structure is such that it can cover the requisite operations and maintenance expenditures. The local public utilities, under Department of Public Works and Transport, which have the relevant expertise will be responsible for technical part of operations and maintenance in partnership with the communities.

Institutional and social sustainability

The project will pave the way for the national government and local authorities to sustain and up-scale the project to other provinces and districts through the enabling governance framework, processes and tools provided. This framework may include adapting relevant policies, legislation, planning practices and budget streams so that identifying and implementing resilience measures are made possible at the national and local level. UN-Habitat will implement the project in partnership with communities and public utilities to ensure that project outputs are well anchored within the institutional framework of the local governments.

Environmental Sustainability

The integration of community plans/maps (that include climate change vulnerabilities and disaster risks) into local development plans will allow national and local governments to allocate budgets for implementing resilience-building measures, also to sustain and/or upscale the project in other provinces/districts and to protect water resources and other natural resources.

Financial sustainability

On the community/household scale, resilient infrastructure will be maintained in partnership with the local public utilities and communities/households. This will ensure that after the project, using appropriate pro-poor tariffs the established systems are maintained.

Technical sustainability

The project will be implemented in partnership with communities and public utilities. Capacity building of the communities and local government institutions through trainings for planning, construction and maintenance will ensure technical sustainability. Moreover, strategic partnership with local public utilities will ensure that the infrastructures established are well maintained.

K. Environmental and social impacts and risks

Table 12: overview of the environmental and social impacts and risks identified as being relevant to the project.

Checklist of environmental and social principles	No further assessment required for compliance	Potential impacts and risks – further assessment and management required for compliance
Compliance with the Law	X	
Access and Equity		X
Marginalized and Vulnerable Groups		X
Human Rights		X
Gender Equity and Women’s Empowerment		X
Core Labour Rights		X
Indigenous Peoples		X
Involuntary Resettlement	X	
Protection of Natural Habitats		X
Conservation of Biological Diversity		X
Climate Change	X	
Pollution Prevention and Resource Efficiency		X
Public Health		X
Physical and Cultural Heritage	X	
Lands and Soil Conservation		X

The proposed project seeks to fully align with the Adaptation Fund’s Environmental and Social Policy (ESP). Outlined below is a brief description of the initial analysis that has been carried out to evaluate environmental and social impacts of the project, and areas where steps will be taken and where further assessment is needed.

Activities under Component 1 (Institutional level strengthening to reduce vulnerability in human settlements) and Component 2 Building capacity at the human settlement and community level capacities for climate resilience are both soft activities. According to the Adaptation Fund’s Environmental and Social Policy, “Those projects/programmes with no adverse environmental or social impacts should be categorized as Category C”³⁸. No environmental and social impacts, whether direct, indirect, transboundary or cumulative are envisaged to arrive as a result of any of the soft activities under Components 1 and 2. Despite this, however, steps will be taken to ensure that no environmental or social impacts can occur.

The activities under Component 3 are ‘hard’ activities, and as such some activities have the potential, without and environmental and social safeguarding system, including mitigation measures, create negative environmental and social impacts. However, in our assessment, none of the activities proposed could be considered to be in Category A of the Adaptation Fund’s impact classification, and as such, the activities in the Table below are likely to fit into Category B or C. This is because this project proposes hard activities that are numerous, but small scale and very localized, and managed by communities where possible, who have a stake

³⁸ Adaptation Fund Environmental and Social Policy, paragraph 28, Page 8

in avoiding environmental and social impacts. This means that the potential for direct impacts is small and localized, that there can be few indirect impacts, and that transboundary impacts are highly unlikely. Given this, cumulative impacts are also unlikely.

Detailed information about how environmental and social risks have been identified/assessed, managed and mitigated for the whole project and will be identified/assessed, managed and mitigated for sub-projects can be found in the Environmental and social management in Annex 8.

PART III: IMPLEMENTATION ARRANGEMENTS

A. Arrangements for project management

For this AF project, UN-Habitat will be the Multilateral Implementing Entity (MIE), as requested by the Lao People's Democratic Republic. While UN-Habitat's Regional Office for Asia and the Pacific (ROAP) and UN-Habitat's Headquarters (HQ) will ensure project management compliance in accordance with UN-Habitat and AF standards and requirements, the UN-Habitat Lao office will take the lead in day-to-day management of project activities and related coordination with the Executing Agencies and other local stakeholders.

In close consultation with the political partner, the Ministry of Natural Resources and Environment (MoNRE) and the national executing partner, the Ministry of Public Works and Transport (MoPWT) the following mechanisms for project coordination and project implementation were agreed upon.

MoNRE is responsible for policies, strategies, legal instruments, plans, programmes and project related to climate change, land use and water resources. MoNRE will be a key member of the Project Management Committee. Further, project components 1: "Institutional capacity development – National-, Provincial- and District- level government" and 2 "Building capacity at the human settlement and community level for climate resilience" will be closely coordinated with and partially executed by MoNRE; this pertains in particular to the development of methodologies, generally based on existing tools and processes. In particular the Department of Disaster Management and Climate Change, which hosts the Designated National Authority or national focal point for the AF will engage in the tool development and capacity development. The MoU will in particular specify the role of MoNRE within the Project Management Committee. UN-Habitat will manage and provide technical advisory services to components 1 and 2, the government will implement workshops and training events through agreements of cooperation (AoCs, the legal and financial mechanism between UN-Habitat and executing agencies).

MoPWT will be the main executing agency, including through the provincial level departments. As such MoPWT will chair the Project Management Committee. MoPWT will be closely involved in Project Components 1, 2 and 3. The Ministry, through the Department of Water Supply and other key Departments at national and provincial level will be the key beneficiary of the capacity development elements of Project Component 1, will execute parts of Component 3 and will take the lead (through the provincial government departments) in implementing component 3 "Enhance climate and disaster resilient infrastructure systems in human settlement" through a series of Agreements of Cooperation (see below).

Following the Government's '3-build' or 'Samsang' process of decentralisation and UN-Habitat standards and procedures, UN-Habitat will have Agreements of Cooperation (AoC) with three provincial governments at the relevant level (Saravane, Sekong and Attapue) for delivering project activities and outcomes directly at the sub-national level. The AoCs will allow linking project activities and outputs to tranche funding, spelling out requirements for delivering project activities and outputs, also including responsibilities for management arrangements, arrangements to comply with safeguards, procurement procedures, M & E arrangements, community involvement arrangements, etc. Whereas the provinces (and ministries) will be responsible for community involvement/contracting, UN-Habitat will facilitate this process. In particular the monitoring and implementation through the provision of technical expertise, and

the introduction of a participatory and people centred approach of implementation, i.e. the people's process³⁹ will thus be ensured).

For an overview of the responsibilities/roles of stakeholders for project activities and outputs, please see Annex 7. This annex also includes a preliminary AoC example between UN-Habitat and the provinces, spelling out responsibilities/roles regarding project activities, outputs, M & E arrangements, management of project risks (safeguards), etc.

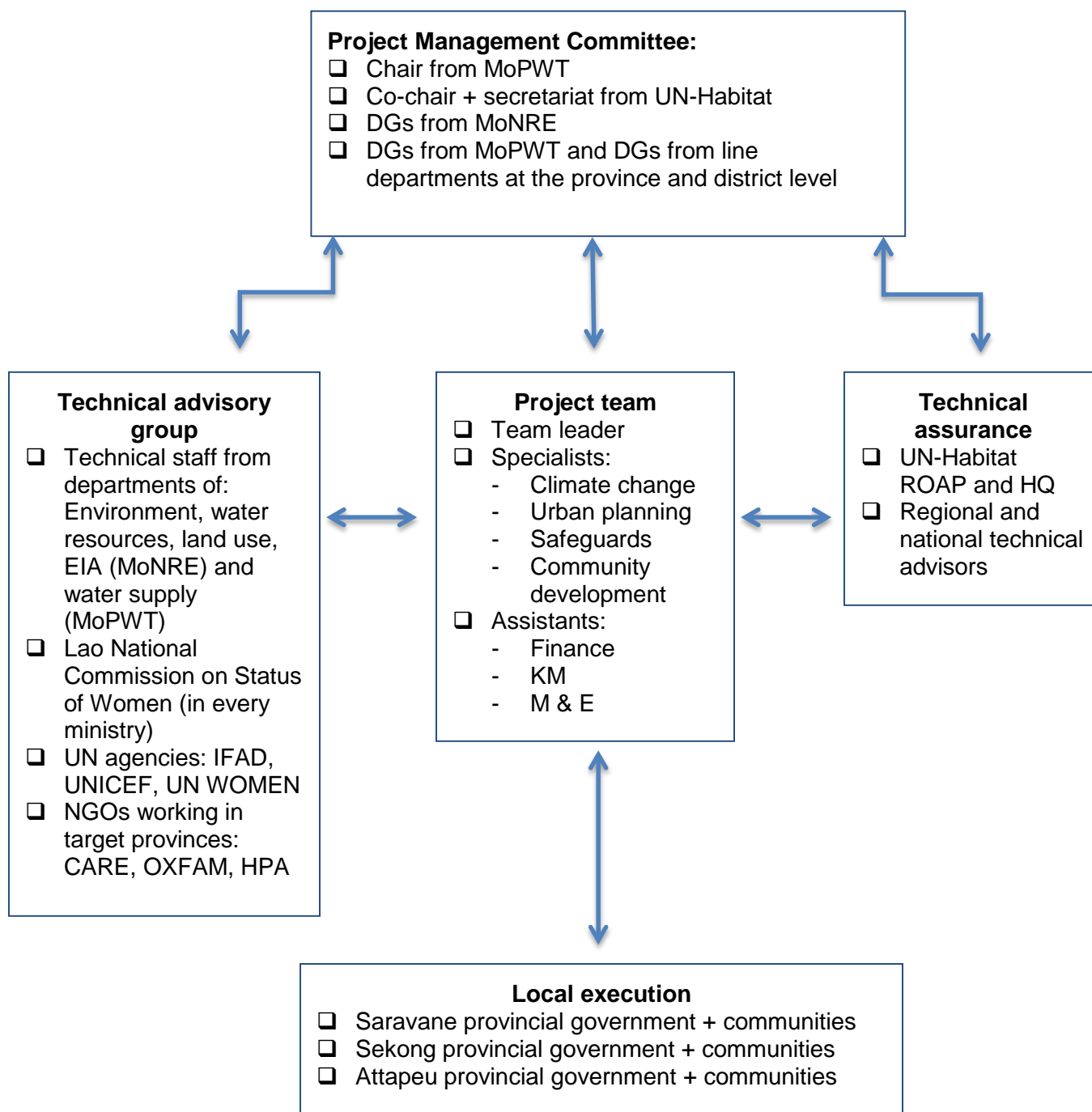
At the national level, the Project will be supported by a **Project Management Committee** (PMC). The PMC will be formed to oversee and keep abreast of project progress and facilitate the implementation of the project, including overseeing and cooperating with the project team, the technical assurance group and the technical advisory group. The PMC will be chaired by MoPWT and co-chaired by UN-Habitat (including secretariat). The PMC will include Director Generals from the MoNRE and Director Generals from line departments at the provincial and district level. The Committee will approve annual work plans and review project periodical reports as well as any deviations from the approved plans.

The Project Team (PT), which will have the responsibility of day-to-day management of project activities and related coordination with the Executing Agencies and other local stakeholders, will also take the lead in monitoring and evaluation and learning. The team will be lead by UN-Habitat and will consist of the members listed in the organigram below.

To assist the Project Team on technical questions, a **Technical Advisory Group** (TAG) will be formed to provide guidance and advice on technical questions related to climate change/resilience, water management, spatial/urban planning, sanitation, health/hygiene, and vulnerable and marginalised people. The main objective of the TAG is to identify technical strengths and weaknesses of the project, take stock of available and required technical know-how under different project components, and provide technical backstopping and quality control throughout the project period.

³⁹ Development driven by people/Support Paradigm: when people stays at the center of development planning process, the resource can be optimized with greater utility impacting larger number of people: <http://sopheapfocus.com/wp-content/uploads/2010/06/Picture-31.png> People's process of development can be witnessed through the evolvement of people's desire to improve their lives. Humans developed their settlement from living in caves, then building shelters, and now home. Along this settlement evolution, they had also established certain norms, standards, and a mutual understanding surrounding their community. That is called the people's process of development.

Organigram of the project



B. Measures for financial and project risk management

The status of financial and project risks, including those measures required to avoid, minimize, or mitigate these risks, will be monitored throughout the project (as discussed in section D: arrangements for monitoring, reporting and evaluation)

Table 13: Financial and project management risks, significance of risks and measures to manage/mitigate risks.

	Category and risk	Rating: Impact/ probability 1: Low 5: High	Management/mitigation Measure
1.	Environmental/social: Current climate and seasonal variability and/or hazard events result in infrastructure construction delays or undermine confidence in adaptation measures by local communities	Impact: 3 Prob: 2	<input type="checkbox"/> Current climatic variability will be taken into account in the planning and execution of project activities and especially into project component 3 (the construction of resilient infrastructure): infrastructure will mainly be constructed in the dry season. <input type="checkbox"/> Criteria for the selection of infrastructure projects at the community level will provide incentives for communities to cooperate towards long-term resilience because they are based on the outcomes of the climate change vulnerability and disaster risk assessments which looks especially at long-term trends and impacts.
2.	Institutional: Loss of government support (at all levels) for the project (activities and outputs) may result in lack of prioritization of AF project activities.	Impact: 4 Prob: 1	<input type="checkbox"/> Establishment of a project management committee and the overall participatory and inclusive project design will improve national, provincial, district and beneficiary level ownership throughout and thus enhance government support for project implementation. <input type="checkbox"/> UN-Habitat will establish agreements (MoUs and AoCs) to ensure implementing entities will deliver project activities and outputs. UN-Habitat will facilitate planning processes to deliver these outputs at the all levels of government and in communities. <input type="checkbox"/> Government staff working on climate change, environment, disaster management, land use and water management will be strongly networked into the project (e.g. involvement assessments and plan development).
3.	Institutional: Capacity constraints of local institutions may limit the effective implementation of interventions	Impact: 2 Prob: 1	<input type="checkbox"/> The project has a strong capacity building and training component, designed to promote effectiveness and sustainability at the community and the district, province and national government levels.
4.	Institutional/social	Impact: 2	<input type="checkbox"/> Community stakeholders have been consulted during the full

	Lack of commitment/buy-in from local communities may result in delay at intervention sites.	Prob: 1	<p>project development phase to ensure their buy-in into the AF project.</p> <p><input type="checkbox"/> A bottom-up approach (the people's process) integrating the community into the AF project's implementation phases – including community contracting - will be followed.</p>
5.	Institutional/social: Disagreement amongst stakeholders with regards to adaptation measures (infrastructure) and site selection.	Impact: 2 Prob: 2	<p><input type="checkbox"/> Adaptation measures and intervention sites will be selected using an agreed upon list of criteria to ensure the selection is transparent and equitable.</p> <p><input type="checkbox"/> There will be a participatory approach to the AF project, particularly with regards to climate change vulnerability and disaster risk assessments and related to this, the planning and selection of adaptation measures and site selection.</p>
6.	Institutional: Communities may not adopt activities during or after the AF project, including infrastructure maintenance	Impact: 2 Prob: 2	<p><input type="checkbox"/> The interventions will be institutionalized within the ministries, local government bodies and communities to ensure sustainable delivery of (post-) project implementation, including formal agreements for infrastructure maintenance (at provincial level) and infrastructure user fees at the community level.</p> <p><input type="checkbox"/> Capacity building and training of communities will be undertaken to improve their awareness and understanding of the benefits of the activities, including infrastructure maintenance.</p>
7.	Financial: Complexity of financial management and procurement. Certain administrative processes could delay the project execution or could lack integrity	Impact: 2 Prob: 2	<p><input type="checkbox"/> Financial management arrangements have been defined during project preparation.</p> <p><input type="checkbox"/> UN-Habitat's control framework, under the financial rules and regulations of the UN secretariat, will ensure documentation of clearly defined roles and responsibilities for management, internal auditors, the governing body, other personnel and demonstrates prove of payment / disbursement.</p> <p><input type="checkbox"/> A draft procurement plan will be developed for USPs, in-line with the UN-Habitat Procurement policy including evidence of international standards aligned procurement policies and procedures. The plan will be further defined in cooperation with all the involved institutions and stakeholders. Procurement for the sub-projects will be done through AoCs and the project manager has a certifying role.</p>
8.	Institutional: Delays in project implementation, and particularly in the development of infrastructure interventions	Impact: 1 Prob: 2	<p><input type="checkbox"/> Delays in projects are often related to capacity issues and external factors such as hazards. UN-Habitat has worked with the ministries to develop infrastructure before and this has been implemented in a timely and cost-effective way.</p> <p><input type="checkbox"/> Related to this, ownership by the Government has been high during the preparation phase which will reduce this risk.</p> <p><input type="checkbox"/> The construction of infrastructure projects will be planned in the dry season to avoid hazard risks.</p>

C. Measures for the management of environmental and social risks

The proposed project seeks to fully align with the Adaptation Fund's Environmental and Social Policy (ESP). For that purpose, environmental and social risks and impacts of the project and related activities need to be identified and addressed (so that the project does not unnecessarily harm the environment, public health or vulnerable communities). This will be done through the integration of an environmental and social safeguarding system in:

1. **Institutional processes:** staff and partners will be trained to identify, assess, manage and mitigate environmental and social risks, a social safeguards specialist will be hired and MoUs and AoC will include agreements about how to deal with safeguard compliance during project implementation.
2. **Soft project activities:** a detailed environmental and social assessment will be part of the project activity to conduct comprehensive climate change vulnerability and disaster risk assessments at the provincial, district and settlement/community level (output 1.1.1.).
3. **Sub-projects:** environmental and social safeguard mechanisms will be put in place to identify, assess, manage and mitigate potential environmental and social risks of Unidentified Sub-Projects (USPs) (i.e. small-scale infrastructure investment projects and related activities) and establishment of a grievance mechanism.

Prior to the start of this project, all potential environmental and social risks (related to the 15 Adaptation Fund safeguards) have been identified/assessed and measures to mitigate these risks proposed (see outcomes of initial environmental and social risk assessment in annex 8).

During the project, potential environmental and social risks of Unidentified Sub-Projects, which have the potential to fall into medium risk category B (besides low risk category C), will be identified/assessed and mitigated as well. This is the main reason an Environmental and Social Management Plan (ESMP - see annex 8) has been developed to which all MoU and AoC partners will have to adhere. Compliance will be monitored by UN-Habitat.

The ESMP discusses:

- Environmental and social risks management framework:** explanation of method and process of dealing with potential environmental and social risks and grievance procedures
- Measures to mitigate identified risks:** outcomes of initial environmental and social risk assessment and risk mitigation measures for institutional processes and soft project activities.
- Risks assessment tool for Unidentified Sub-Projects:** to identify, assess, manage and mitigate potential environmental and social risks of small-scale infrastructure investment projects and related activities.

Regarding measures to mitigate identified risks, a detailed environmental and social assessment will be conducted (see method and expected outcomes in annex 9) as part of the

comprehensive climate change vulnerability and disaster risk assessments output 1.1.1.) in the target provinces, districts and settlements/communities. The reasoning for this is that the assessment will be much more comprehensive/detailed, including the involvement of marginalised/vulnerable groups in all target settlements/communities, as could be done in the proposal development phase. Besides that, a detailed environmental and social assessment is only required for the activities under component 3 which includes Unidentified Sub-Projects. Once the comprehensive climate change vulnerability and disaster risk assessments has been carried out the ESMP will be reviewed and re-consulted.

The overall responsibility for compliance with the ESP will be with the project manager, the safeguards specialist and the project's M&E officer, who will undertake regular monitoring, as further discussed in section D: the monitoring, reporting and evaluation below.

Stakeholder engagement has been and will be vital to the effective functioning of the ESMP, and beneficiaries and other local and national stakeholders, including government and communities, have been consulted and will be further consulted throughout the project duration. The consultations included and will include marginalized groups, including women, youth, the elderly, disabled people and people from indigenous groups. The final ESMP and climate change vulnerability and disaster risk reduction assessment/community consultations will be publicly available through UN-Habitat's website and will be translated into the Lao language. Besides that, results will be shared with ethnic minority groups in ways that they will understand the results (e.g. verbally). A grievance mechanism is also part of the plan. This will allow any affected stakeholder to raise concerns, anonymously if they wish, to local project committees. Modalities for raising grievances will include a postal address to which ethnic minorities can write in any language and an email address on the project's website and a confidential telephone number.

UN-Habitat has pioneered the use of community agreements through what is known as the People's Process. Community agreements will be used (as part of AoC with provincial governments) in this proposed project as a means of implementing activities under component 3. Under the process of developing agreements with communities, communities themselves own the process of building, installing and operating small-scale infrastructure, where possible, and as such are incentivized to minimize environmental and social impacts. The way environmental and social safeguarding measures are integrated in contracts with the provincial government (and through these with the communities, is shown in an Agreement of Cooperation example in annex 7. Part of the contracts will be that sensitization will take place (facilitated by UN-Habitat) to enable communities to work in a way that reduces negative impact on their environment, in line with the Adaptation Fund's Environmental and Social Policy.

The roles and responsibilities, budgetary requirements, timelines and monitoring and evaluation arrangements required to implement safeguarding actions are reflected in the designated sections of part III of this proposal.

D. Arrangements for monitoring, reporting and evaluation

The AF project will comply with formal guidelines, protocols and toolkits issued by the AF, UN-Habitat and Lao PDR. The Monitoring and Evaluation (M & E) of progress in achieving project results will be based on targets and indicators established in the Project Results Framework (see below). Besides that, the status of identified environmental and social risks and the ESMP, including those measures required to avoid, minimize, or mitigate environmental and social risks, will be monitored throughout the project (annual project performance, mid-term and terminal reports). The same applies to financial and project management risks and mitigation measures.

Participatory monitoring mechanisms (involving different levels of government and communities) will be put in place for the collection and recording of data to support the M & E indicators. This will allow beneficiary communities to work directly with the project's M & E consultant, to highlight issues in project delivery and to strengthen adaptation benefits, including in replication and sustaining the project's gains. Data collected will include marginalized groups (e.g. women) aggregated (if possible). Project site visits will be jointly conducted based on an agreed schedule to assess project progress first hand.

The project team will develop an **M & E Plan** during the project's inception phase, which will be distributed and presented to all stakeholders during the Inception Workshop. The emphasis of the M & E will be on (participatory) outcome/result monitoring, project risks (financial & project management and environmental & social) and learning and sustainability of the project. Periodic monitoring will be conducted through visits to the intervention sites.

During the project **inception workshop**, M & E aspects to be discussed will include: (i) presentation and explanation of the project's Results Framework, project risks (financial & management and the ESMP); (ii) review of M & E indicators and their baselines; (iii) preparation of draft clauses that will need to be included in contracts to ensure compliance with M & E reporting functions; and (iv) clarification of the division of M & E tasks among the different stakeholders.

Annual Project Performance Review (PPR) will be prepared to monitor progress made since the project's start and in particular for the previous reporting period. The PPR includes, but is not limited to, reporting on the following:

- Progress on the project's objective and outcomes – each with indicators, baseline data and end- of-project targets (cumulative);
- Project outputs delivered per project outcome (annual);
- Lessons learned/good practice;
- Annual Work Plan and expenditure;
- Annual management;
- Environmental and social risks (i.e. status of implementation of ESMP, including those

measures required to avoid, minimize, or mitigate environmental and social risks. The reports shall also include, if necessary, a description of any corrective actions that are deemed necessary.

- Project financial and management risks (same as per above)

This project will undergo a **Mid-Term Evaluation** at the mid-point of project implementation. The Mid-Term Evaluation will determine progress being made toward the achievement of outcomes and will identify corrective actions if needed, including for environmental and social risks mitigation. It will: i) focus on the effectiveness, efficiency and timeliness of project implementation; ii) highlight issues requiring decisions and actions; and iii) document initial lessons learned about project design, implementation and management. Findings of this review will be incorporated as recommendations for improved implementation during the final half of the project's term.

An independent **Terminal Evaluation** will take place as last activity before the operational closure of the project in accordance with AF guidance and following the OECD DAC framework. The terminal evaluation will focus on the delivery of the project's results, as initially planned and then reflected in the M&E framework, including the implementation environmental and social mitigation measures (and as corrected after the Mid-Term Evaluation, if any such correction took place). The terminal evaluation will assess the impact and sustainability of results, including their contribution to capacity development and the achievement of adaptation benefits.

The **reports** that will be prepared specifically in the context of the M & E plan are: (i) the M & E plan, (ii) the project inception report, (iii) Annual-, mid-term and terminal project performance reports and (iv) technical reports.

For the M & E budget and a breakdown of how implementing entity fees will be utilized in the supervision of the M&E function, please see the detailed budget (section G). For related data, targets and indicators, please see the project proposal results framework (section E).

E. Project proposal results framework

Table 14: Project results framework with indicators, their baseline, targets, risks & assumptions and verification means.

Expected Result	Indicators	Baseline data	Targets	Risks & assumptions	Data collection method	Frequency	Responsibility
Project objective: enhanced climate and disaster resilience of the most vulnerable rural and emerging urban human settlements in Southern Lao PDR by increasing sustainable access to basic infrastructure systems and services, emphasizing resilience to storms, floods, droughts, landslides and disease outbreaks							
Project component 1: Institutional level strengthening to reduce vulnerability in human settlements							
Outcome 1.1. Reduced vulnerability at national, provincial and district level to climate-related hazards and threats	Number of local vulnerability assessments reports that are available/processed to national government agencies for policy making.	0	3 provincial reports 8 districts reports	Capacity of national government to collect, process and disseminate relevant vulnerability information required	Collect information from MoNRE	Baseline, mid-term and end	UN-Habitat
Output 1.1.1. Integrated climate change vulnerability and disaster risk reduction assessments (incl maps) conducted/produced in target areas	Number of climate change vulnerability and disaster risk assessments produced at the provincial, district and settlement/community level	0	3 Provincial 8 district (highlighting specific vulnerabilities in 189 settlements.	Difficult to measure quality of generated vulnerability and risk assessments. Provincial level assessments are based on district assessments	Collect information from provincial and district governments and communities	Baseline, mid-term and end	UN-Habitat
Activities 1.1.1.1. Conduct 3 provincial Climate Change Vulnerability Assessments. 1.1.1.2. Conduct 8 District-level Climate Change Vulnerability Assessments (highlighting specific vulnerabilities in 189 settlements). 1.1.1.3. Develop guidelines for replication of vulnerability and risk assessments for other areas				Milestones <ul style="list-style-type: none"> ▪ District-level Climate Change Vulnerability Assessments (month 10) ▪ Provincial Climate Change Vulnerability Assessments (month 12) ▪ Guideline for replication of vulnerability and risk assessments for other areas (month 18) 			

<p>Outcome 1.2.</p> <p>Increased awareness on resilience building of human settlements and infrastructure systems as a result of enhanced institutional capacity</p>	<p>Number of targeted institutions with increased capacity to reduce vulnerability to climate variability risks .</p>	<p>0</p>	<p>National Government / MPWT (1) can provide guidance to sub-national level on resilient infrastructure development</p> <p>Provincial governments (3) and district governments (8) actively participate and guide community level adaptation investments</p>	<p>There is a need for good understanding of the existing capacity and gaps to bridge in targeted institutions.</p>	<p>AoC completion report of feedback from provincial and district-level departments/institutions</p> <p>AoC Completion reports on community-level investments</p> <p>Report on community feedback (community monitoring)</p>	<p>As per AoC schedule</p> <p>As per AoC schedule</p>	<p>UN-Habitat</p>
<p>Output 1.2.1.</p> <p>Capacity development support provided to national government and local authorities</p>	<p>Number of staff trained to roll-out the project and to improve community-level resilience.</p>	<p>0</p>	<p>National-level government (20) Provincial-level (30) District-level (40)</p>	<p>Access needed to training records and list of participants. A survey to collect further information would be required to understand quality of training and application of information learned.</p>	<p>Training reports</p> <p>Post-training evaluation reports</p>	<p>Baseline, mid-term and end</p>	<p>UN-Habitat</p>
<p>Activities</p> <p>1.2.1.1. Project tool compilation and development (comprising of assessment and planning approach, guidelines for resilient infrastructure, and technical standards, environmental and social safeguards and community action planning tools)</p> <p>1.2.1.2. Project team induction/training</p> <p>1.2.1.3 National Induction/Stakeholder Workshop (national and provincial participants)</p> <p>1.2.1.4 National training of facilitators workshop (national and provincial participants)</p> <p>1.2.1.5 District level workshops in support of project roll out (provincial and district-level participants)</p>				<p>Milestones</p> <ul style="list-style-type: none"> ▪ Project tool (month 3) ▪ Training reports (month 5) ▪ AoC completion reports (month 48) ▪ Report on community feedback (months 48) 			

<p>Outcome 1.3.</p> <p>Resilience building measures identified by provincial and district authorities which can feed into local development plans emphasizing community climate change resilience, disaster preparedness, land use planning, water resource management and infrastructure development.</p>	<p>Provincial governments and district authorities are aware of pro-poor, rights-based, gender sensitive, climate change adaptation options.</p>	<p>0</p>	<p>3 provincial development plans 8 district development plans</p>	<p>Government knowledge of environmental and social safeguards is required</p>	<p>Reports on initial Climate Change options in plans and their compliance with environmental and social safeguards.</p>	<p>Baseline, mid-term and end</p>	<p>UN-Habitat</p>
<p>Output 1.3.1.</p> <p>Provincial and district-level Climate Change Action Plans – including (as appropriate) implications for land use, water resource management and infrastructure, developed. Based on the vulnerability assessments and in close consultation with provincial and district level authorities and the communities concerned, evidence-based and specific adaptation options are identified.</p>	<p>Number of government entities on provincial and district level that developed initial climate change action plans and adaptation options.</p>	<p>0</p>	<p>3 provincial development plans 8 district development plans</p>	<p>Required to compile and review all relevant plans and to identify mentioning of climate change priorities and implication for land use, water management and infrastructure</p>	<p>Analyse plans and check if following is included: -Climate change adaptation measures/priorities -Implications for land use -Implications for water management -Implications for infrastructure</p>	<p>Baseline, mid-term and end</p>	<p>UN-Habitat</p>
<p>Activities</p> <p>1.3.1.1: Develop three provincial Climate Change action plans including implications for land use, water resource management and infrastructure (e.g. on maps).</p> <p>1.3.1.2: Develop eight district-level Climate Change action plans, highlighting particular vulnerabilities of the 189 communities, including implications for land use, water resource management and infrastructure (e.g. on maps)</p>				<p>Milestones</p> <ul style="list-style-type: none"> ▪ District-level Climate Change Action Plans (month 22) ▪ Provincial Climate Change Action Plans (month 24) 			

Project Component 2: Building capacity at the human settlement and community level for climate resilience							
<p>Outcome 2.1</p> <p>Community capacity to plan, construct and maintain resilient water-, drainage-, sanitation-, related infrastructure systems and to apply improved hygiene standards strengthened</p>	<p>No. of targeted communities with increased capacity, incl. representatives of all ethnicities, women (50%), young people, elderly, people with disabilities and other people with vulnerabilities participate in the planning process</p>	0	189 (or less if clustering is possible)	There is a need for good understanding of the existing capacity and gaps to bridge in targeted communities	Photos from action planning process and mission reports, including representatives count (at least 50 % women)	Baseline, mid-term and end	UN-Habitat
<p>Output 2.1.1.</p> <p>Trainings and community action planning workshops provided to communities for the development of community resilience plans and to plan, construct and maintain climate and disaster resilient water-, drainage-, and sanitation-related infrastructure systems and to improve hygiene standards.</p>	<p>Number of actionable plans developed</p>	0	189 (or less if clustering is possible)	Required to compile and review all relevant policy documents and to mention explicitly climate change priorities	Plans and training reports	Baseline, mid-term and end	UN-Habitat
<p>Activities</p> <p>2.1.1.1. Community workshops/trainings in support of project roll out: vulnerability and risk assessment support, developing/updating community plans, selecting infrastructure projects.</p> <p>2.1.1.2. Community trainings for planning, construction and maintaining resilient infrastructure and to apply improved hygiene standards</p> <p>2.1.1.3. Develop guidelines to plan, construct and maintain small-scale climate and disaster resilient infrastructure systems</p>				<p>Milestones</p> <ul style="list-style-type: none"> • Vulnerability and risk assessment done (month 8) • Community plans developed (month 16) • Infrastructure to be constructed selected (month 18) • Training reports (month 36) • Updated guidelines for small-scale projects (month 22) 			

Project component 3: Enhance climate and disaster resilient infrastructure systems in human settlement							
Outcome 3.1. 47,000 people have access to storm, flood, landslide-, drought- and disease resilient water, drainage, sanitation and health related infrastructure systems	Number of people that have access to improved or newly constructed resilient infrastructure	0	47.000	Measurement per community (inhabitants per community) required	Count of improved or newly constructed infrastructure in number of communities and number of people living in these communities	Baseline, mid-term and end	UN-Habitat
Output 3.1.1. Vulnerable infrastructure strengthened or new resilient infrastructure constructed in response to climate change impacts, including variability	Number of physical infrastructure improved or newly constructed to withstand climate change and variability-induced stress	0	Number to be defined but all target communities should be beneficiaries	Documents and tools to assess level of improvement and adaptation required	Count of improved or newly constructed infrastructure	Baseline, mid-term and end	UN-Habitat
Activities 3.1.1.1. Sub-project identification (based on VA's and community-based selection criteria) 3.1.1.2. Environmental and social risk assessments (if required) of sub-projects 3.1.1.3. Provincial government procurement procedures 3.1.1.4. Participative planning, construction and maintenance of resilient infrastructure				Milestones <ul style="list-style-type: none"> Plans for Sub-projects (month 24, 30, 36) Environmental and social risk assessments of sub-projects conducted (month 27) Provincial government procurements done (continuous between 27 and 42 months) Infrastructure constructed (month 48) 			

Project component 4: Ensure project compliance with AF and UN-Habitat standards for knowledge Management, Advocacy and Monitoring							
<p>Outcome 4.1.</p> <p>Project implementation is fully transparent. All stakeholders are informed of products and results and have access to these for replication.</p>	No of products available online	0	Number to be defined	Required to search online	Online	Baseline, mid-term and end	UN-Habitat
<p>Output 4.1.1.</p> <p>Project activities and results are captured and disseminated through appropriate information for the beneficiaries, partners and stakeholders and the public in general.</p>	No of reports	0	Reports as per AF requirements	Follow AF requirements for M & E	See M & E section	As per AF requirement	UN-Habitat
<p>Activities</p> <p>Knowledge management and advocacy</p> <p>4.1.1.1. Capture and disseminated project results through appropriate information for the beneficiaries, partners and stakeholders and the public in general.</p> <p>Monitoring & Evaluation</p> <p>4.1.1.2. Measurements of means of verification</p> <p>4.1.1.3. Direct Project Monitoring and Quality Assurance including progress and financial reporting, project revisions, technical assistance and risk management</p> <p>4.1.1.4. Evaluations (Mid-term review and Independent terminal evaluations)</p> <p>4.1.1.5. Inception workshop, field visits and project management committee meetings</p>				<p>Milestones</p> <ul style="list-style-type: none"> • Annual Reports • Advocacy Material 			

Table 15: Activities and milestones (x)

Activity	Year 1				Year 2				Year 3				Year 4			
1.1.1.1. Conduct 3 provincial Climate Change Vulnerability Assessments.				x												
1.1.1.2. Conduct 8 District-level Climate Change Vulnerability Assessments				x												
1.1.1.3. Develop guidelines f							x									
1.2.1.1. Project tool compilation and development		x														
1.2.1.2. Project team induction/training		x														x
1.2.1.3. National Induction/Stakeholder Workshop		x														
1.2.1.4. National training of facilitators workshop		x														
1.2.1.5. District level workshops in support of project roll out		x														
1.2.1.1. Develop three provincial Climate Change action plans								x								
1.3.1.2. Develop eight district-level Climate Change action plans								x								
2.1.1.1. Community workshops/trainings in support of project roll out				x		x	x	x								
2.1.1.2. Community trainings												x				
2.1.1.3. Develop guidelines								x								x
3.1.1.1. Sub-project identification								x		x		x				
3.1.1.2. Environmental and social risk assessments										x						
3.1.1.3. Provincial government procurement procedures																x
3.1.1.4. Participative planning, construction and maintenance of infra																x
4.1.1.1. Knowledge management and advocacy																x
4.1.1.2. Monitoring & Evaluation	x					x				x				x		

F. Project alignment with the Adaptation Fund results framework

Table 16: project alignment with the Adaptation Fund results framework

Project outcome	Project outcome Indicator	Fund Outcome	Fund Outcome Indicator	Grant Amount (USD)
1.1. Reduced vulnerability at national, provincial and district level to climate-related hazards and threats	Number of local vulnerability assessments reports that are available/processed to national government agencies for policy making.	1. Reduced exposure at national level to climate-related hazards and threats	1.1. Relevant threat and hazard information generated and disseminated to stakeholders on a timely basis	<u>687.640</u>
1.2. Increased awareness on resilience building of human settlements and infrastructure systems as a result of enhanced institutional capacity	Number of targeted institutions with increased capacity to reduce vulnerability to climate variability risks .	2. Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses	2.1. No. and type of targeted institutions with increased capacity to minimize exposure to climate variability risks .	
1.3. Resilience building measures identified by provincial and district authorities which can feed into local development plans emphasizing community climate change resilience, disaster preparedness, land use planning, water resource management and infrastructure development.	Provincial governments and district authorities are aware of pro-poor, rights-based, gender sensitive, climate change adaptation options.	7. Improved policies and regulations that promote and enforce resilience measures	7. Climate change priorities are integrated into national development strategy	
2.1. Community capacity to plan, construct and maintain resilient infrastructure systems and to apply improved hygiene standards strengthened	No. of targeted communities with increased capacity, incl. representatives of all ethnicities, women (50%), young people, elderly, people with disabilities and other people with vulnerabilities	3. Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level	3.1. Percentage of targeted population aware of predicted adverse impacts of climate change, and of appropriate responses	<u>200.000</u>

	participate in the planning process			
3.1. 47,000 people have access to storm, flood, landslide-, drought- and disease resilient water, drainage, sanitation and health related infrastructure systems	Number of people that have access to improved or newly constructed resilient infrastructure	4. Increased adaptive capacity within relevant development and natural resource sectors	4.2. Physical infrastructure improved to withstand climate change and variability-induced stress	<u>2.800.000</u>
Project output	Project Output Indicator	Fund Output	Fund Output Indicator	Grant Amount (USD)
1.1.1. Integrated climate change vulnerability and disaster risk reduction assessments (incl maps) conducted/produced in target areas	Number of climate change vulnerability and disaster risk assessments conducted and/or updated at the provincial, district and settlement/community level	1. Risk and vulnerability assessments conducted and updated at a national level	1.1. No. and type of projects that conduct and update risk and vulnerability assessments	<u>687.640</u>
1.2.1. Capacity development support provided to national government and local authorities	Number of staff trained to improve community-level resilience.	2.1 Strengthened capacity of national and regional centres and networks to respond rapidly to extreme weather events	2.1.1. No. of staff trained to respond to, and mitigate impacts of, climate-related events	
1.3.1. Provincial and district-level Climate Change Action Plans – including (as appropriate) implications for land use, water resource management and infrastructure, developed. Based on the vulnerability assessments and in close consultation with provincial and district level authorities and the communities concerned, evidence-based and specific adaptation options are identified.	Number of government entities on provincial and district level that developed initial climate change action plans and adaptation options.	7. Improved integration of climate-resilience strategies into country development plans	7.1. No., type, and sector of policies introduced or adjusted to address climate change risks	
2.1.1. Trainings and community action planning	Number of actionable plans	3. Targeted population groups	3.1.1. No. and type of risk reduction	<u>200.000</u>

workshops provided to communities for the development of community resilience plans and to plan, construct and maintain climate and disaster resilient water-, drainage-, and sanitation-related infrastructure systems and to improve hygiene standards.	developed	participating in adaptation and risk reduction awareness activities	actions or strategies introduced at local level	
3.1.1. Vulnerable infrastructure strengthened or new resilient infrastructure constructed in response to climate change impacts, including variability	Number of physical infrastructure improved or newly constructed to withstand climate change and variability- induced stress	4. Vulnerable physical, natural, and social assets strengthened in response to climate change impacts, including variability	4.1.2. No. of physical assets strengthened or constructed to withstand conditions resulting from climate variability and change (by asset types)	<u>2,800,000</u>

G. Detailed budget

Table 17: Detailed budget

Output				Unit (mo)	Unit cost	New Total
1.1.1.	Integrated climate change vulnerability and disaster risk reduction assessments (incl maps) conducted/produced in target areas					
		International consultants	Climate Change	10	4500	45.000
			Urban Planning/Policy/GIS	10	4500	45.000
			Safeguards	1	4500	4.500
			CTA	2	13400	26.800
		National consultants				
			TA Technical	12	2100	25.200
			TA Community dev and coordination	12	2100	25.200
			TA Socio-economic/finance	13	1100	14.300
		Travel				31.000
		Equipment				
		Contracts				
		Goods & Materials				
		Training/workshops	1 x Provincial x 3	3	3000	9.000
	1 x District x 8	8	3000	24.000		
	Total				250.000	
1.2.1.	Capacity development support provided to national government and local authorities					
		International consultants	Climate Change	4	4500	18.000
			Urban Planning/Policy/GIS	4	4500	18.000
			Safeguards	2	4500	9.000
			STA	2	13400	26.800
		National consultants				
	TA Technical	12	2100	25.200		

			TA Community dev and coordination	12	2100	25.200
			TA Socio-economic/finance	9	1100	9.900
		Travel			lumpsum	18.000
		Equipment				
		Contracts				
		Goods & Materials	Guidelines			5.000
		Training/workshops	1 x National	1	10000	10.000
			1 x District x 8	8	10000	80.000
		Total				245.100
1.3.1.	Provincial and district-level Climate Change Action Plans – including (as appropriate) implications for land use, water resource management and infrastructure, developed. Based on the vulnerability assessments and in close consultation with provincial and district level authorities and the communities concerned, evidence-based and specific adaptation options are identified.					
		International consultants	Climate Change	10	4500	45.000
			Urban Planning/Policy/GIS	10	4500	45.000
			Safeguards			
			CTA	2	13400	26.800
		National consultants				-
			TA Technical	6	2100	12.600
			TA Community dev and coordination	6	2100	12.600
			TA Socio-economic+finance	5	1100	5.500
		Travel				40.140
		Equipment				
		Contracts				
		Goods & Materials				
		Training/workshops				
		Total				187.640
2.1.1.	Trainings and community					

	action planning workshops provided to communities/households for the development of community resilience plans and to plan, construct and maintain climate and disaster resilient water-, drainage-, sanitation-, and health related infrastructure systems and to improve hygiene standards.	International consultants				0
			Climate Change			0
			Urban Planning/Policy/GIS			0
			Safeguards			0
		National consultants	CTA			0
						0
						0
		Travel				11.000
		Equipment				0
		Contracts				0
		Goods & Materials				0
		Training/workshops	Guidelines			5.000
			2 x Communities x 189	378	500	189.000
				-		
	Total			205.000		
3.1.1.	Vulnerable infrastructure strengthened or new resilient infrastructure constructed in response to climate change impacts, including variability					
		International consultants				
			Climate Change			
			Urban Planning/Policy/GIS			
			Safeguards			
		National consultants	CTA			
			Climate Change			
		Travel	Community dev and coordination			
		Equipment				
Contracts				2.800.000		
Goods & Materials						

		Training/workshops					
		Total				2.800.000	
4.1.1.	Project activities and results are captured and disseminated through appropriate information for the beneficiaries, partners and stakeholders and the public in general (see detailed M & E budget below).	International/national consultants		13	3000	42.000	
		Travel	Communications specialist			18.000	
		Equipment					
		Contracts					
		Goods & Materials	Video films, leaflets, brochures, etc			20.000	
		Training/workshops	Journalist workshop, M&E workshop			20.000	
			Total				100.000
B	Project Programme Execution Costs		Chief Technical Advisor			240.000	
			HSO			36.000	
			Office facilities			41.000	
			International Travel/monitoring			15.000	
			Fukuoka PMA / PMO			7.825	
			M & E			20.000	
			Total				359.825

C	Total Project/Programme Cost					4.147.565
D	Project/Programme Cycle Management Fee					352.534
		Project Support Costs (global)		7%		290.330
		Evaluation costs (headquarters)		0,25%		10.369
		Project Support Costs (ROAP)		1,25%		51.845
E	Amount of Financing Requested					4.500.099

Table 18: Summary of the M&E costs

Type of M & E activity	Responsible parties	Budget US\$ (Excluding project team time)	Time frame
Measurements of means of verification (baseline assessment and M & E plans)	Project Manager; Project team	6.000	First quarter of year 1
Direct Project Monitoring and Quality Assurance including progress and financial reporting, project revisions, technical assistance and risk management	Project Manager; Project team; Provincial and district-level government, community level monitoring	26.000	Quarterly, half-yearly and annually. Building on provincial and district level assessments and community level monitoring.
Mid-term review and Independent terminal evaluations)	Project Manager; Project team; Provincial and district-level government and community-level monitoring UN-Habitat M&E Section and external consultants (from project execution and project cycle management)	10.000 (excl. 20.000 from project execution costs and 10.000 from project cycle management fee)	At midpoint and at end of project implementation
Inception workshop and project management committee meetings	Project Manager; Project team Project management committee	20,000	Inception meeting within first 2 months and bi-annual PB meetings (and sub-committee meetings)
Travel	Project Manager; Project team Project management committee	18.000 (excl. 15.000 from project execution costs)	Quarterly, half-yearly and annually and as needed
Total		80.000 (excl. 30.000 from project execution cost and project cycle management fee and project team staff time)	

Note: The costs indicated here do not include the costs associated with (UN-Habitat) project staff. Such costs will be covered by the MIE fee and project execution cost fee.

H. Disbursement schedule

Table 19: disbursement schedule

	Year 1	Year 2	Year 3	Year 4	Total
Milestone	1 st disbursement – upon agreement signature	2 nd disbursement <ul style="list-style-type: none"> ▪ Upon First annual Report ▪ Upon financial report indicating disbursement of at least 70% of funds Milestones <ul style="list-style-type: none"> ▪ 1.1.1.1 Provincial Climate Change Vulnerability Assessments (month 12) ▪ 1.1.1.2 District-level Climate Change Vulnerability Assessments (month 10) ▪ Project tool (month 3) ▪ Initial Training reports (month 5) • Vulnerability and risk assessment done (month 8) 	3 rd disbursement <ul style="list-style-type: none"> ▪ Upon Second annual Report ▪ Upon financial report indicating disbursement of at least 70% of funds Milestones <ul style="list-style-type: none"> ▪ Guideline for replication of vulnerability and risk assessments for other areas (month 18) ▪ District-level Climate Change Action Plans (month 22) ▪ Provincial Climate Change Action Plans (month 24) ▪ Community plans developed (month 16) ▪ Infrastructure to be constructed selected (month 18) ▪ Updated guidelines for small-scale projects (month 22) ▪ Plans for Sub-projects (month 24) 	4 th disbursement <ul style="list-style-type: none"> ▪ Upon Second annual Report ▪ Upon financial report indicating disbursement of at least 70% of funds Milestones <ul style="list-style-type: none"> ▪ Plans for Sub-projects (months 30 and 36) ▪ Training reports (month 36) ▪ Environmental and social risk assessments of sub-projects conducted (month 27) ▪ Provincial government procurements done (continuous between 27 and 42 months) ▪ Initial infrastructure completed 	
Schedule date	January 2017	January 2018	January 2019	January 2020	
Project Funds (US\$)	USD 1,000,000	USD 1,000,000	USD 1,000,000	USD 787,640	USD 3,787,640
MIE Fee (US\$)	USD 188,075	USD 188,075	USD 188,075	USD 148,135	USD 712,360

PART IV: ENDORSEMENT BY GOVERNMENT AND CERTIFICATION BY THE IMPLEMENTING ENTITY

A. Record of endorsement on behalf of the government⁴⁰

<i>Mr. Syamphone Sengchandala, Director of Legislation and coordination Division and National Focal Point for Adaptation Fund of Lao PDR, Ministry of Natural Resources and Environment</i>	<i>Date: 26 July 2016</i>
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⁴⁰ Each Party shall designate and communicate to the secretariat the authority that will endorse on behalf of the national government the projects and programmes proposed by the implementing entities.



Lao People's Democratic Republic
Peace Independence Democracy Unity Prosperity

Ministry of Natural Resources and Environment (MONRE)
Department of Disaster Management and Climate Change

Vientiane Capital, Date 26 July 2016

To: The Adaptation Fund Board
c/o Adaptation Fund Board Secretariat
Email: Secretariat@Adaptation-Fund.org
Fax: 202 522 3240/5

Subject: Endorsement for 'Enhancing the Climate and Disaster Resilience of the most Vulnerable Rural and Emerging Urban Human Settlements in Lao PDR'.

In my capacity as designated authority for the Adaptation Fund in Laos PDR, I confirm that the above national project/programme proposal is in accordance with the government's national priorities in implementing adaptation activities to reduce adverse impacts of, and risks, posed by climate change in Lao PDR. A final wrap up national consultation, on 20th July 2016, endorsed the project proposal results framework and organigram.

Accordingly, I am pleased to endorse the above project/programme proposal with support from the Adaptation Fund. If approved, the project/programme will be implemented by the United Nations Human Settlements Programme (UN-habitat) and expected by the Ministry of Public Works and Transport (MPWT) and supported by the Ministry of Natural Resources and Environment (MoNRE). Several other relevant line Ministries and local authorities will be involved in the implementation of this project.

Yours sincerely,

Mr.Syamphone SENGCHANDALA

Designed Authority for the Adaptation Fund of Lao PDR

B. Implementing Entity Certification

I certify that this proposal has been prepared in accordance with guidelines provided by the Adaptation Fund Board, and prevailing National Development and Adaptation Plans including The eighth Five Year National Socio-economic Plan (2016-2020) with a Vision to 2030; The National Integrated Nationally Determined Contribution (2015); The National Climate Change Action Plan (2013-2020); The National Strategy on Climate Change of Lao PDR (2010); The National Adaptation Programme of Action (2009), The National Disaster Management Plan (2011) and subject to the approval by the Adaptation Fund Board, commit to implementing the project/programme in compliance with the Environmental and Social Policy of the Adaptation Fund and on the understanding that the Implementing Entity will be fully (legally and financially) responsible for the implementation of this project/programme.



Rafael Tuts
Coordinator,
Urban Planning and Design Branch,
UN-Habitat

Date: 08/01/2016

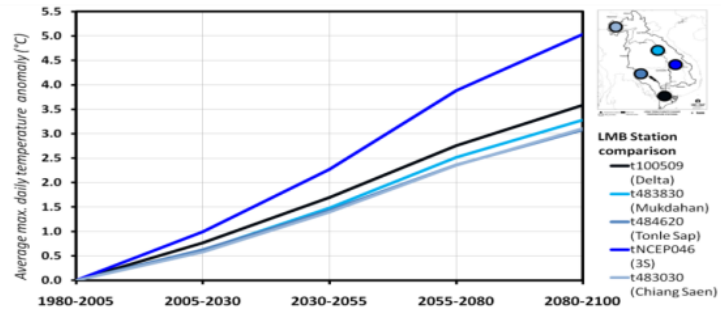
Tel. and email:
+254-20-762-3726
Raf.Tuts@unhabitat.org

Project Contact Person: Bernhard Barth, Human Settlements Officer

Tel: +81-92-724-7121
Email: Bernhard.Barth@unhabitat.org

Changes in basin temperature

- In the LMB, temperatures are increasing faster than the global average
 - Global 2100: 3-5°C
 - LMB 2100: 3-5°C
 - LMB 2°C: exceeded before 2030-2050
- Increases in temperature will result in fundamental shifts in the temperature regime,
 - experiencing warmer temperatures never reached under baseline conditions
 - Greater variability
- Areas of greatest change:
 - 3S attachments
 - Mekong Delta of Vietnam and Cambodia



Changes in basin rainfall

- Annual precipitation is projected to increase by 3-18% (35-65mm) throughout the basin
- Mostly due to increases in wet season rainfall
 - Central/Northern Annamites: 18% (365mm)
 - Northern Lao PDR/Thailand: 14% (175mm)
 - Cambodian floodplain/Khorat Plateau: 3-10%
 - Vietnam Delta: 5-8%
- For the southern parts of the basin increased seasonal variability in rainfall
 - wetter wet season, drier dry season



Figure 12: Trend of acute bloody diarrhea disease in Lao PDR (related to unsafe water). Sekong province crores highest, followed by Saravane and Attapeu.

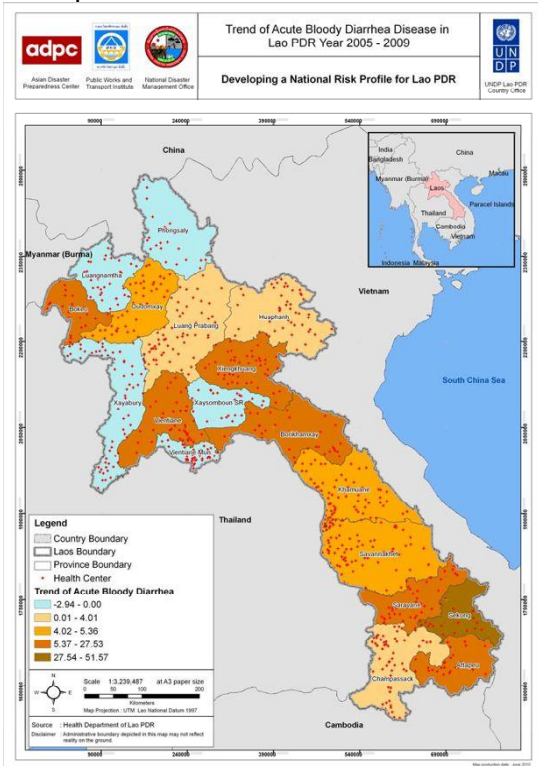


Figure 13: UXO distribution in Lao PDR Saravan, Sekong and Attapeu provinces all crore high.

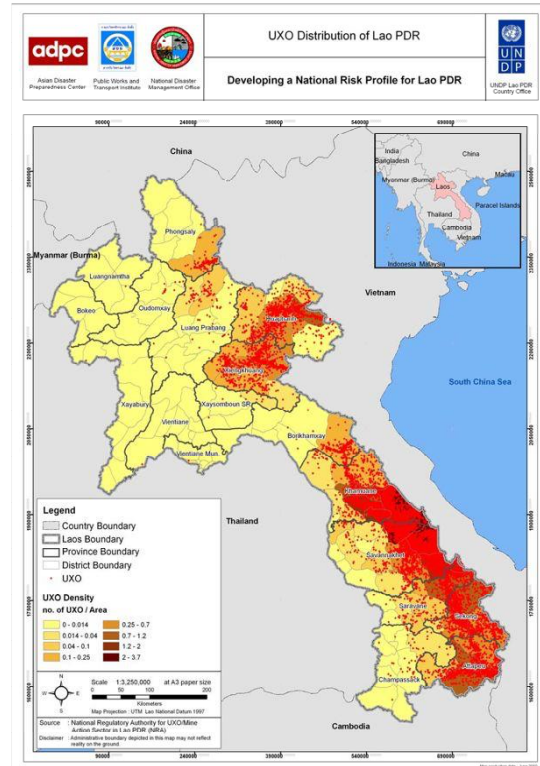
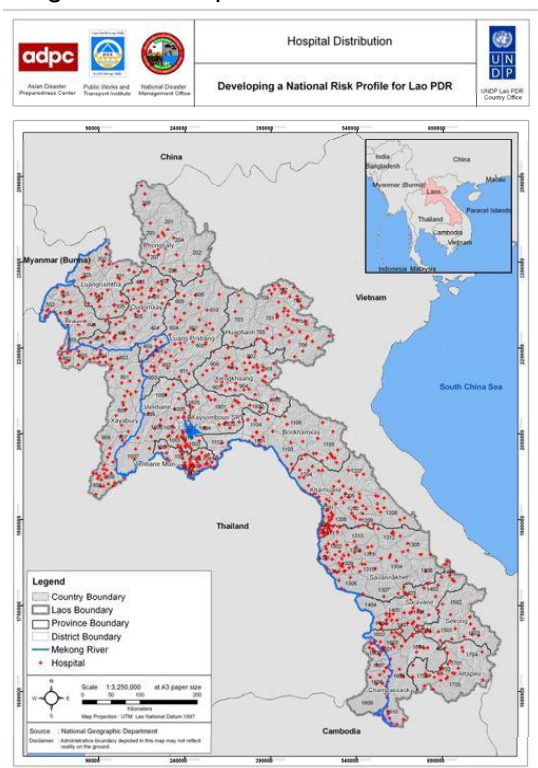


Figure 14: Hospitals in Lao PDR



ANNEX 2: examples of resilient water supply and sanitation infrastructure

UN HABITAT
WATER RESOURCE MANAGEMENT
WATER INTAKE WITH DISASTER PREVENTION-CONSTRUCTION DETAILS

GUIDING PRINCIPLES FOR BUILDING BACK BETTER WATER INTAKE

1. Water source : Bank protection using gabion mattress to protect an erosion and environment
2. Dam : Made from concrete with water regulation as such slide gate
3. Water intake : Concrete structure/Pests well fixed with submersible pump and GSP Pipes
5. Maintenance : Repair and upgrade before rainy season

UPPER WATER CHANNEL
CRIB DAM
WATER INTAKE WITH SUBMERSIBLE PUMP AND GSP PIPES
PLAN
CONCRETE DAM WITH WATER INTAKE REGULATED BY SLIDE GATE

Bank protection: using gabion mattress to protect an erosion and environment
Water intake with submersible pump and GSP PIPES

UN HABITAT 11 1 2017/2018, 4th Floor, 177, Street 7, New Camp, Phnom Penh, Cambodia. Tel: 855 23 88 11 11. Fax: 855 23 88 11 11. Email: info@unhabitat.org

BUILDING BACK BETTER PIT LATRINE

Platform raised with 20" steps
Floor level
Submersible pump

Bank protection: using gabion mattress to protect an erosion and environment

Pit latrine
Submersible pump
Water intake with submersible pump and GSP PIPES
Elevated pit latrine

Bank protection: using gabion mattress to protect an erosion and environment

UN HABITAT
FOR A BETTER URBAN FUTURE

UN HABITAT 11 1 2017/2018, 4th Floor, 177, Street 7, New Camp, Phnom Penh, Cambodia. Tel: 855 23 88 11 11. Fax: 855 23 88 11 11. Email: info@unhabitat.org

Annex 3: List of prioritized villages

Table 20: prioritized villages in Salavan province

Ta Oi district		Samuoi district	
Adeu	Paten	Acheungdeela	Kilignai
Adone	Piko	Acheunggnai	Lahang
Axor	Pitian	Adengkoutab	Lalor
Bongnam	Porbeui	Agnong	Lasen
Chohai	Sabongkokhai	Ajahongtun	Lavaneua
Chorlavieng	Sanang	Amai	Paluatieng
Dao	Sanyayone	Amen	Pheenxe
kamouan	Sing	Amonleuk	Samouay
Kang	Soytam	Angkong	Taliab
Kape	Tahouak	Asao	Taloeui
Katen	Talunglalao	Atouk	Taloung
Lakhab	Thongkakai	Axingneua	Tandy
Laxaeng	Thoungxa	Axingsomboun	Tangko
Leukdong	Toumlykao	Ho	Tanyu
Pachoudone	Toumlykhao	Kaboeui	Tapongloub
Pachu	Toungkatai	Kaleng	Xe
Padu	Tungkorng		
Paseer	Tuomleuthong		
Pasom	Xoyhong		

Table 21: prioritized villages in Xekong province

Dakcheung province		Kaleum district	
A youn	Darksieng	A ngouad+Tasark	Laipor
Dark brang	Darkta ork yai	Abeun	Ling
Dark eui	Darkta orknoy	Aching+Akeo	Lo gnai
Dark kei	Darkvai	Agneuang,Avern,Alarn	Lonoi
Dark larn	Darkwor+Dark ark	Ahang+kandone	Pai
Dark moung	Darkxeng	Alod	Panorn+karieng
dark ngork	Darkxieng	Arock+Aroung+laba	Parktalai
Dark pork	Darkxouang	Aror gnai+Aror noi	Parkxai
Dark rai	Kailo	Aroung+Laba	Patlang
Dark ru	Khounxay	Bark	ploy+talangmai
Dark trerb	Kone gnong	Bobing+talong	Po+Lam+Sa ang
Dark wai	Lienglouang	Chale	Pom
Dark yang Gnai	Mangtha gnai	Chalork	Tahiew
Dark yang noy	Mangthanoy	Chater+oung+pale	Talui
Darkchang	Peng ya	Ching	Tamor
Darkdan-7 rark 7 deui	Prao	Don	Tamplin+Apiad
darkden	Tang nong	Farkhouai+kalo	Tanang
Darkdenh	Tang yeui	Hanong neua	Taneum+Paleng
Darkdern	Tang yeung	Hardwee+noi	Tangkard
Darkdieng	Tangbrong	Hatpae	Tangpang
Darkdin	Tangkalo	Ka ouang+Ataeng	Tavang+bon
Darkdom	Tanglou+Dark leu	Kador	Thamdeng
Darkman	Tangmii	Klo	Thongkai

Darkmart	Tangpeuang	Klung	
Darkplarn	Tangtalang		
Darkpong	Tongxieng		

Table 22: prioritized villages in Attapeu province

Sanxay district	Phouvong district	Samakkhixay district	Xaysetha district
Dakbung	Ka-Oun	Champhao	Kangmarkeou
Dakker	Markkieng	Donesay	
Dakpork	Nasueang		
Daktaork	Noonphalay		
Dakyare	Vongsay		
Kachung	Vongvilaytay		
Phiengseo			
Vungtatnoy			
Yiatdak			

ANNEX 4: Overview of relevant projects in target provinces of Saravane, Sekong and Attapeu

Table 23: overview of relevant projects in the same target provinces

Implementer	Project	Timeline	Location
IFAD	Adaptation for Smallholder Agriculture Programme (ASAP) ⁴¹	2015 -	Saravane Sekong Attapeu
UNDP	Effective governance for small scale rural infra and disaster preparedness in a changing climate (incl. Vas) ⁴²	2014 - 2017	Saravane Sekong
UN-Habitat	Water supply and sanitation projects	2009-2017	Saravane Sekong Attapeu

Table 24: overview of relevant projects focused on governance and capacity building

Implementer	Project	Timeline
ADB	Water Supply and Sanitation Sector ⁴³	2013 - 2022
	Strengthening resilience to CC in health sector ⁴⁴	2015 - 2018
World Bank	Mainstreaming disaster and climate risk management in investment decisions ⁴⁵	2011 - 2016
	Building Resilience to Natural Hazards ⁴⁶	2013 - 2016
UN-Habitat	Water Governance	2014 – 2017
	Mekong Region Water and Sanitation Initiative (MEK-WATSAN)	2009 – 2017
	Water for Asian Cities (WAC)	2009 - 2017

⁴¹ Link to project document: <http://www.ifad.org/climate/asap/>

⁴² Link to project document:

http://www.la.undp.org/content/lao_pdr/en/home/operations/projects/environment_and_energy/LDCF2.html

⁴³ Link to project document: <http://www.adb.org/projects/45301-002/main>

⁴⁴ Link to project document: <http://www.adb.org/projects/47143-001/main>

⁴⁵ Link to project document: <http://www.worldbank.org/projects/P129182/lao-pdr-mainstreaming-disaster-climate-risk-management-investment-decisions?lang=en>

⁴⁶ Link to project document: <http://www.worldbank.org/projects/P144268?lang=en>

ANNEX 5: Analysis (relevance) of national strategic priorities

In red is relevant to the Adaptation Fund priorities and for this project

National socio-economic priorities

The eighth Five Year National Socio-economic Plan (2016-2020) with a Vision to 2030 (2015)

Goal:

1. Continued **poverty reduction**, graduation from Least Developed Country Status

Outcomes, indicators and outputs:

2. **Outcome 1:** Sustained, inclusive economic growth **with economic vulnerability (EVI) reduced** to levels required for LDC graduation and consolidated financial, legal and human resources to support growth
 - a. Output 1 – Sustained and Inclusive Economic Growth
 - b. Output 2 – Macro-economic Stability
 - c. Output 3 – Integrated Development Planning and Budgeting
 - d. **Output 4 – Balanced Regional and Local Development**
 - i. Possible relevant activities: promote agriculture - forestry; industry; commerce, services & tourism; **and basic infrastructure development in the South of Laos.**
 - e. Output 5 – Improved Public /Private Labor Force Capacity
 - f. Output 6 – Local Entrepreneurs are Competitive in Domestic and Global Markets
 - g. Output 7 – Regional and International Cooperation and Integration
3. **Outcome 2:** Human resources development achieved to LDC graduation criteria level and achievement of off-track MDGs through the provision and use of services that are balanced geographically and distributed equitably between social groups.
 - a. **Output 1- Improved Living Standards through Poverty Reduction**
 - i. Possible relevant activities: transforming villages into developed units; construct necessary basic infrastructure; allocate residential housing and design good village planning; supply water; and prepare to cope with climate/weather changes and reduce the damages caused by natural disasters that could occur.
 - b. Output 2 – Food Security Ensured and Incidence of Malnutrition Reduced
 - c. Output 3 – Access to High Quality Education
 - d. **Output 4 – Access to High Quality Health Care and Preventative Medicine**
 - i. Possible relevant activities: none
 - ii. **Possible relevant targets: 90 % of population use clean water and 80 % of population use latrine⁴⁷**
 - e. Output 5 – Enhanced Social Welfare
 - f. Output 6 – Protection of Traditions and Culture
 - g. Output 7 – Political Stability, Order, Justice, Gender Equality
4. **Outcome 3:** Reduced effects of natural shocks as required for LDC graduation and sustainable management of natural resources exploitation.
 - o **Output 1 – Environmental Protection and Sustainable Natural Resources Management**
 - Possible relevant activities: develop a plan for sustainable use and management of natural resources (incl. land and water); develop plans for urban and rural development with good environmental preservation; comprehensively manage

⁴⁷ See page 118 for details - The eighth Five Year National Socio-economic Plan (2016-2020) with a Vision to 2030 (2015)

- water resources
 - Possible relevant implementation policies and legal instruments: harmonize and link policies on water resources protection and management, food security, energy security and the development of clean and safe city; improve policy application and legislation on natural resource use and management; promote eco-tourism places.
 - Output 2 – Preparedness for Natural Disasters and Risk Mitigation
 - Possible relevant activities: establish mechanism to manage, monitor and evaluate impacts of water, air and pollution; promote 4R waste management; manage toxic waste and waste water; establish comprehensive early warning system; implement policy that can manage disasters and adaptation to climate change; improve legislation on use and management of nature resources, regulations on informing the communities in natural disaster risk areas.
 - Output 3 – Reduced Instability of Agricultural Production
 - Cross-cutting: gender equality, juvenile and youth; effectiveness public governance

National Climate change priorities

The National Strategy on Climate Change of Lao PDR (2010)

Vision:

- To secure a future where the Lao PDR is capable of mitigating and adapting to changing climatic conditions in a way that promotes sustainable economic development, reduces poverty, protects public health and safety, enhances the quality of Lao PDR's natural environment, and advances the quality of life for all Lao people.

Goals:

- Reinforce Sustainable Development Goals of the Lao PDR, including measures to achieve low-carbon economic growth;
- Increase resilience of key sectors of the national economy and natural resources to climate change and its impacts;
- Improve public awareness and understanding of various stakeholders about climate change, vulnerabilities and impacts, GHG emission sources and their relative contributions

Relevant adaptation options – water:

- Developing climate change scenarios for the river basins;
- Developing reliable early warning systems;
- Downscaling climate and hydrological models to a watershed level;
- Integrating climate change measures into current risk management strategies and planning processes

Relevant adaptation options – urban development:

- Developing climate proofed urban environmental development plans;
- Formulation of climate proofing to the climate change policy and action plan;
- Conducting climate change risk audits for each of the key infrastructure services, to identify climate vulnerability;
- Climate-proofing the most vulnerable existing infrastructure to protect the current assets;
- Building storm surge barriers for wastewater treatment plants and landfills;
- Developing new design criteria for infrastructure that reflect non-stationary hydrologic processes;

Relevant adaptation options – public health:

- Providing access to safe water and improved sanitation;
- Incorporating current climate change concerns into ongoing programmes and measures;
- Raising the public awareness;
- Strengthening existing capacity and applying new approaches to examining the risks associated with a changing climate and increased climate variability.

Climate change action plan 2013-2020

Purpose:

- Guide central and local government agencies as well as mass organizations, the private sector and other groups to play their parts in addressing climate change mitigation and adaptation in a sustainable manner.

Vision and goals

- Same as climate change strategy

Key initiatives:

- Strengthening institutional and human resource capacities on climate change;
- Enhancement of adaptive capability for coping with climate change;
- Climate change mitigation through the reduction of greenhouse gas emission;
- Strengthening education and raising public awareness on climate change.

Projects and activities:

Key Initiative 1: Strengthening Institutions, Legislations, Human Resource Capacity and Finance on Climate Change

No.	Projects Focus	Priority	Responsible Ministry
1.1	<p>Establish and Strengthen Technical Capacity for Planning and Implementing Climate Change Activities</p> <ul style="list-style-type: none"> • Establish and strengthen organizational arrangements and technical capacity for research, data collection and data dissemination, planning and implementing on climate change 	High	MONRE and other relevant ministries
1.2	<p>National Management and Coordination on Climate Change</p> <ul style="list-style-type: none"> <input type="checkbox"/> Strengthen the national focal point for effective participation in UNFCCC and other international climate change processes; <input type="checkbox"/> Promote and coordinate external partnerships; <input type="checkbox"/> Strengthen and Technical Working Group on Climate Change; • Establish and strengthen monitoring and reporting on climate change activities 	High	MONRE
1.3	<p>Climate Change Strategy and Action Plan</p> <ul style="list-style-type: none"> • Develop long-term National Adaptation Planning • Develop national policy for low carbon and green growth; <ol style="list-style-type: none"> 1. Prepare and update policies, strategies and implementation plans on climate change in selected 	High	MONRE and other relevant ministries

	agencies; 2. Mainstream climate change into sector policies, strategies and development plans		
1.4	Raising Public Awareness on Climate Change <input type="checkbox"/> Raise awareness on management and promotion of climate change activities	Medium	MONRE and other relevant ministries
1.5	Strengthen Climate Change Finance <ul style="list-style-type: none"> Strengthen fiscal systems, access to and management of international assistance, long-term investment and finance planning; Strengthen provisions for participation in voluntary carbon markets, CDM, Bilateral Credit Offset Credit Mechanism (BOCM), etc in appropriate sectors 	High	MoF, MONRE and other relevant ministries

Key Initiative 2: Climate Change Adaptation

- Agriculture sector
- Forestry and land use change
- Water resources

No.	Project Focus	Priority	Responsible Ministry
2.3.1	Strengthening Water Resource Information Systems for Climate Change <ul style="list-style-type: none"> 3. Strengthen information gathering, modeling and vulnerability assessment for climate change in priority river basins in Lao PDR; 4. Develop and implement a reliable early warning flood reporting and disseminating service 	High	MONRE
2.3.2	Flood Management <ul style="list-style-type: none"> Develop a comprehensive flood management strategy and specific flood management plans for priority areas; 5. Develop flood risk maps and promote land use planning to minimize vulnerable investment in flood prone areas 	High	MONRE
2.3.3	Drought Management <ul style="list-style-type: none"> Assess drought risk and impacts, existing policies and programs; incorporate drought mitigation into priority river basin and sub-basin plans; Survey groundwater sources in drought prone areas; develop plans for recharge and sustainable use of groundwater; Study and manage water quality impacts on rivers, groundwater and aquatic ecosystems during low flow / drought periods; ensure wastewater and pollution discharge does not threaten vital water quality for communities and natural ecosystems 	Medium	MoNRE and other relevant ministries
2.3.4	Managing Watersheds and Wetlands for Climate Change Resilience <ul style="list-style-type: none"> Strengthen the protection of watersheds to safeguards and moderate downstream flow during periods of high and low precipitation; Study and promote the conservation of wetlands as part of a climate-resilient ecosystem approach 	High	MoNRE

2.3.5	Increasing Water Resource Infrastructure Resilience to Climate Change	High	MoNRE and other relevant ministries
	<ul style="list-style-type: none"> <input type="checkbox"/> Develop and strengthen standards and procedures to ensure the safety of dams and other water resource infrastructure; prepare investment plans for upgrading and safeguarding water resource infrastructure; <input type="checkbox"/> Design and build multi-use reservoirs in drought prone areas; <input type="checkbox"/> Construct, rehabilitate dikes and river bank protection and irrigation systems to enhance climate resilience 		
2.3.6	Promotion of Climate Change Capacity in the Water Resource Sector	High	MoNRE and other relevant ministries
	<ul style="list-style-type: none"> <input type="checkbox"/> Increase awareness and technical capacity of technical staff regarding climate change and appropriate water resource management technology; <input type="checkbox"/> Strengthen capacity of government staff on water resources in coordination with other stakeholders; <input type="checkbox"/> Study and waste water treatment in affecting to surface, ground water and ecosystems 		

- Energy and transport

No.	Project Focus	Priority	Responsible Ministry
2.4.1	Increasing the Resilience of Energy and Transportation Infrastructure	High	NEM and other relevant ministries
	<ol style="list-style-type: none"> 6. Study, develop and implement design and operational standards for all sizes of reservoirs and hydropower facilities to reduce climate change impacts, including public safety and downstream discharge impacts; 7. Study, develop and implement design and operational standards for other renewable energy facilities to reduce climate change impacts e.g. solar cell, wind energy, biogas, energy efficient stoves for fuel demand and others 		

- Industry

No.	Project Focus	Priority	Responsible Ministry
2.5.1	Increasing the Resilience of the Industrial Sector to Climate Change	High	MIC and other relevant ministries
	<ol style="list-style-type: none"> 8. Study, develop and implement design / maintenance standards for industrial facilities (manufacturing and processing, mining, commercial facilities, etc) to reduce climate change impacts; 9. Ensure land use planning and provision of public services for industry (water supply, transportation, etc) take climate change impacts into account; 10. Build capacity for technical staff in the industrial sector in order to be able to monitor and analyze greenhouse gas quantities emitted from industrial 		

plants

❑ Transport and urban development

No.	Project Focus	Priority	Responsible Ministry
2.6.1	<p>Increasing the Resilience of Urban Development to Climate Change</p> <ol style="list-style-type: none"> 11. Conduct climate risk audits for key infrastructure services; 12. Ensure flood protection and drainage design for urban infrastructure (roads, drains, flood protection works, water and wastewater facilities, landfills, hospitals, other public buildings) are adequate for climate change conditions; 13. Ensure that urban water supply systems have adequate design and operational standards for climate change impacts, including access to low flows in water sources, water treatment capability and flood protection; 14. Build storm surge / flood protection works for urban infrastructure 	High	MPWT

❑ Public health

No.	Project Focus	Priority	Responsible Ministry
2.7.1	<p>Increasing the Resilience of Rural Water Supply Systems to Climate Change</p> <ol style="list-style-type: none"> 15. Promote climate resilience of rural water supply systems through conservation of watersheds, protection of groundwater sources, protection of water quality and improved design of water and sanitation systems to reduce climate impacts; 16. Increase community awareness and participation in addressing climate related risks to water supply and sanitation systems 	High	MPH and other relevant
2.7.2	<p>Improving Public Health Services for Climate Change Adaptation</p> <ul style="list-style-type: none"> • Improve disease monitoring and reporting; • Improve the treatment of water and vector borne disease and other climate-related health impacts; • Strengthen nutrition and prepare to respond to nutrition emergencies, including food security, emergency food aid and nutritional surveillance; • Strengthen disaster preparedness and recovery, including maintenance of public health services; • Strengthen health education and communication, promote individual action to reduce the vulnerability to climate change; • Improve and develop the systematic drinking water management and sustainable sanitation in participation by the community in the drought and flood areas; • Inspect and improve the standards of drinking water and water supply; 	High	MPH and other relevant

- Strengthen the central and local laboratories to analyze diseases on time in the drought and flood areas

Key Initiative 3: Climate Change Mitigation through Reduction of Greenhouse Gas Emission

- Transport and Urban Development

No.	Project Focus	Priority	Responsible Ministry
3.5.1	<p>Promote Carbon Management through Urban Development</p> <p>17. Promote public transportation;</p> <p>18. Promote clean energy transport and low-carbon transport;</p> <p>19. Promote the use of alternate energy operated motor vehicles (e.g. use the motorcycles and walking in the city to attract tourists);</p> <p>20. Reduction of GHG emissions from the solid waste sector in Lao PDR through applying the 3Rs (reduces, reuse and recycle);</p> <p>21. Improve the solid waste collection services for full coverage of big cities;</p> <p>22. Building recycling facilities in order to reduce the amount of wastes to be disposed in landfills;</p> <p>23. Promoting environmental green urban development;</p> <p>24. Construct and improve the landfill to absorb the methane;</p> <p>25. Seeking the opportunities under the CDM, establish Bilateral Offset Credit Mechanism (BOCM); promote nationally appropriate mitigation actions (NAMAs)</p>	High	MPWT, MONRE and other relevant ministries

National Adaptation Programme of action (2009)

Urgent needs (forestry, agriculture, water, public health)

Water

Priority one:

- Awareness raising on water and water resource management (US\$0,1 million)
- **Mapping of flood-prone areas** (US\$0,65 million - Vientiane Capital, Vientiane, Borikhamxay, Khammouane, Savannakhet, Saravane, Attapeu and Champasack Provinces)
- **Establish an early warning system for floodprone areas, and improve and expand meteorology and hydrology networks and weather monitoring systems** (US\$2,2 million - Luang Namtha, Khammouane, Savannakhet and Attapeu Provinces)
- **Strengthen institutional and human resource capacities related to water and water resource management** (US\$0,2 million)
- Survey underground water sources in drought prone areas (US\$2,1 million);
- **Study, design and build multi-use reservoirs in drought prone areas (US\$2.35 million - along the road No. 9 corridor of Savannakhet Province**

Priority two:

- **Conservation and development of major watersheds;**
- **Build and improve flood protection barriers to protect existing irrigation systems;**
- Improve and protect navigation channels and navigation signs;

- ❑ Repair/rehabilitate infrastructure and utilities damaged by floods in agricultural areas.

Public Health

Priority one:

- ❑ Improve systems for the sustainable use of drinking water and sanitation with community participation in flood and drought prone areas (US\$0,44 million)
- ❑ Improve knowledge and skills of engineers who design and build water and sanitation systems (US\$0,3 million)

priority two:

- ❑ Raise public awareness on sanitation in flood prone areas;
- ❑ Improve and standardise the quality of drinking water;
- ❑ Expand epidemic disease diagnostic laboratories at regional and provincial levels to provide disease epidemic information in a timely fashion to flood and drought affected areas;
- ❑ Prevention and treatment of water borne diseases;
- ❑ Develop a timely and accurate reporting system for epidemic diseases;
- ❑ Improve the capacity of the epidemic disease surveillance system.

Disaster management priorities

National Disaster Management Plan (2012–2015)

Strategic objectives:

- ❑ Safeguard sustainable development and reduce the impacts and damages caused by natural and man-made disasters;
- ❑ Shift from relief to mitigation of disaster impacts to community, society and the economy and preparedness before a disaster strikes with emphasis on hazards such as floods, drought, landslide and fire;
- ❑ Ensure that disaster management is a joint responsibility of both the Government and the people through building community capacity; and
- ❑ Promote sustainable protection of the environment and the country's natural wealth, such as forests, land and water resources.⁴⁸

Components:

- ❑ Ensure that disaster risk reduction is a national and a local priority
 - Formulate policies and legislation in support of disaster risk reduction;
 - Creation and strengthening of a national disaster risk reduction coordination mechanism or a National Disaster Risk Reduction Platform;
 - Integration of disaster risk reduction into national development policies and planning; and
 - Allocate appropriate resources for DRR at the national, provincial and community levels.
- ❑ Strengthen sub-national and community-based disaster risk management
 - Decentralize responsibilities and resources for disaster risk reduction;
 - Promote implementation of community-based disaster risk reduction programs; and
 - Development of a National Disaster Management Plan that supports activities at the provincial, district and village levels.
- ❑ Identify, assess and monitor hazard risks and enhance early warning:
 - Conduct national and local risk assessments on a periodic basis to ensure that timely response mechanisms are developed;
 - Establish and maintain a disaster management information system;
 - Develop and maintain a multi-hazard early warning system;

⁴⁸ Lao PDR (2011, p 22) National Disaster Management Plan 2012-2015

- Collaborate with international and regional disaster risk reduction stakeholders and
- **Establish and operationalize Emergency Operations Centers at national and sub-national levels.**
- Use knowledge innovation and education to build a culture of safety and resilience:
 - Establish mechanisms for information exchange and networking;
 - Promote disaster risk management education and training;
 - Promote gender and cultural sensitivity training as integral component of disaster risk management;
 - Undertake disaster risk reduction management technical and scientific research; and
 - Promote public awareness of hazards, risks and mitigation strategies.
- Mainstreaming disaster risk reduction strategies into policies and programs of relevant government ministries:
 - Promote food security to enhance community resilience;
 - **Integrate disaster risk reduction and response preparedness planning into all sectors of relevant government ministries;**
 - **Promote appropriate structural and non-structural mitigation measures into national building codes** and
 - Develop innovative financial instruments for addressing disaster risks.
- Strengthen disaster preparedness for effective response at all levels:
 - **Strengthen national and sub-national capacity for preparedness and response;**
 - Develop coordinated regional operational mechanisms for emergencies exceeding national coping capacities;
 - Prepare and periodically update disaster preparedness and contingency planning; and
 - Establishment of emergency funds at national and local levels

National water management priorities

Lao PDR (2012) National Indicative Plan (NIP) (2011-2015) for implementation of the IWRM-based basin development strategy

Goals:

- To promote effective water resources management (and natural resource management in general) to help Lao PDR meet its national socio-economic development goals by 2015; and
- To contribute to the national objectives of sustainable development of water and natural resources in the Mekong River Basin and to ensure effective transboundary cooperation with Member Countries.

Objectives:

- To provide a mechanism for Lao PDR to address the main challenges and opportunities in water resource development and management by 2015;
- Ensure transboundary issues are addressed in a collaborative manner with concerned Member Countries;
- To promote development of the agriculture and fisheries sectors to ensure food security for the local population;
- To ensure sustainable development of the hydropower sector;
- To develop effective management and monitoring systems for overall water use and to **protect water quality;**
- To improve navigation in the Mekong waterway throughout the country;
- To **apply the IWRM based approach** into river basin management in the country by establishing RBCs in the Nam Ngum, Nam Theun- Kading, Xe Bang Fay-Xe Bang Hieng, Nam Ou, and **Sekong Rivers** by 2015;
- To establish an effective Early Warning system and **disaster risk management plan at the national, provincial, district and village level; and**

- ❑ To strengthen coordination, monitoring and evaluation systems for water resource management at the national, provincial, district and village level.

Focus Areas:

- ❑ Sustainable agriculture and fisheries development for food security and poverty reduction;
- ❑ Energy and sustainable hydropower development;
- ❑ Natural resource management, particularly water resources management;
- ❑ Climate change adaptation and mitigation;
- ❑ Data and information management, and filling knowledge gaps (research and development); and
- ❑ Human resource development for natural resources management and environmental monitoring and evaluation.

Priority projects of the Climate change adaptation and mitigation component:

Greater Mekong Sub-region: Flood and Drought Management and Mitigation Project

Suggested objectives:

Enhance regional data and knowledge for the management of floods and droughts
 Upgrade or develop water management infrastructure
 Prepare communities to manage disasters such as flood and drought and adapt to climate change
 The Project will improve flood and drought risk management on over 20,000 ha and reduce the vulnerability to floods of over 61,500 people

Outputs

- ❑ **Enhanced Regional Data, Information, and Knowledge Base for the Management of Flood and Droughts:**
 The project will assist the government of Lao PDR to strengthen its national flood and drought forecasting capacities
- ❑ **Upgraded Water Management Infrastructure:**
 The project will support: (i) rehabilitation of flood control embankments, associated water control structures, and access roads; (ii) rehabilitation of drainage canals, including increasing flow capacity and improving water control infrastructure; and (iii) rehabilitation and extension of canals, water control structures and irrigation distribution networks. Specifically, in Lao PDR, the subprojects include the Vientiane Flood Protection Embankment and the Irrigation Development Subproject in Vientiane Capital
- ❑ **Enhanced Capacity of Community Based Disaster Risk Management:**
 Community based disaster risk management (CBDRM) forms an important strategy for enhancing the impact of the structural investments supported by the Project. In each of the communities where infrastructure development is undertaken, CBDRM actions will be implemented to ensure that communities are able to obtain the full benefit from the improved water control infrastructure and improved flood warnings. Community-driven flood and drought risk reduction measures will be implemented based on participatory local level disaster risk reduction and management plans
- ❑ **Effective Project Implementation**
 The project will support the executing agencies to undertake overall project oversight and strengthen the project planning, implementation and management capacities of implementing agencies

Water Supply and Sanitation Strategy for Emerging Towns (2013-2020) (2012)

Vision

- ❑ *“Safe, reliable and accessible water supply and sanitation for all”*

Overall target

- ❑ Consolidate the national efforts to materialize and speed up the declared Party’s policy and Government Plan that foresees at least 67% of the urban population having access to safe water supply in 2015, and an increase in access respectively by 80% in 2020 and 90% in 2030.

Specific objectives

To meet the overall target and realize the Water Supply and Sanitation Sector Vision the following ten goals must be substantially met. The associated objectives and sub-objectives (not included) as prepared by DHUP are relevant to emerging towns.

- ❑ Review institutional framework, policy enforcement and regulations on water supply and sanitation works.
- ❑ Improve sector institution and management.
- ❑ Improve the efficiency of water supply business regulatory system.
- ❑ Develop water supply and sanitation in conjunction with urban development.
- ❑ Expand water supply and sanitation services to small towns in rural areas.
- ❑ Improve capacity for water supply enterprises by enhancing customer satisfaction, and providing efficient and sustainable services.
- ❑ Promote and increase the ratio of the private sector involvement in the development and provision of water supply and sanitation services.
- ❑ Improve the qualification and numbers of professional staff in line with the need of the sector.
- ❑ Ensure a gender balance for the water supply and sanitation sector.
- ❑ Promote the development and utilisation of appropriate technologies and techniques.

❑ Goal 1: Legislation and Policy Reform as applied to emerging towns

- ❑ Identify vulnerable, marginalized and excluded groups and those who lack access to water supply and sanitation and develop specific programmes to ensure their non-discriminatory and effective access to water supply and sanitation;
- ❑ Empower local authorities to organize the planning and provision of water supply and sanitation services in consultation with all relevant stakeholders including women, young people, marginalized groups, civil society and the public sector;
- ❑ Inform all stakeholders about national policies and international norms, standards and conventions related to the delivery of and access to water supply and sanitation. Make records and information publicly aware; and
- ❑ Study the profiles of informal and low income settlements and conduct social and economic surveys on the situation of the poor, their aspirations and their priorities with a view to identifying potential beneficiaries of pro-poor policies;

❑ Goal 2: Capacity building as applied to emerging towns

1. Undertake needs assessment for staffing requirements in water and sanitation to ensure local authorities have adequate staffing levels at all levels with appropriate technical expertise;
2. Develop coasted training plans for central, provincial and district levels; and
3. Provide adequate training opportunities, support remuneration plans and develop career opportunities for local government employees in order to enable local authorities to reach a high quality performance in the provision of water supply and sanitation;

❑ Goal 3: Monitoring of performance of the emerging towns sector performance.

- Establish indicators for the monitoring and evaluation of water supply and sanitation service

- delivery at the national, provincial and district levels;
- Create an accountability framework for the delivery of basic services that includes an effective regulatory system and penalties for non-compliance by service providers – consider the role of WASRO;
 - Monitor service providers' and local authorities' management performance as a basis for technical assistance, capacity-building or corrective action; and
 - Develop an anti-corruption legal framework and take strict and timely action to tackle corruption cases, including criminal penalties where necessary.

ANNEX 6: Overview of consultation objectives, outcomes and conclusions of the preparation/fact finding missions

List of participants of AF consultation workshop on 20 July 2016.

No.	Name	Position	Organisation
1	Mr.Phomma Veoravan	Director General	Department of Water Supply
2	Mr. Sompong Sithivong	Deputy Director General	Department of Water Supply
3	Representative	Depart. of Land Planning and Development	MoNRE
4	Mr. Souliya Thammalangsy	Department of Water Resources	MoNRE
5	Representative	Department of Environmental Quality Promotion	MoNRE
6	Mr. Bounpakone Phongphichith	Department of Planning and Cooperation	MoNRE
7	Mr. Oudone Khounsavan	Department of Livestock and Fisheries	MAF
8	Mr.Saysongkham Xayavong	Department of Agriculture Land Management	MAF
9	Representative	Department of Agriculture	MAF
10	Mr. Khamphan Bounnavong	Department of Irrigation	MAF
11	Mr. Thavone Inthavong	NAFRI	MAF
12	Mr. Touy xayviheuang	Water Supply Division	Department of Water Supply
13	Mr. Khanthone Vorachith	Water Supply Division	Department of Water Supply
14	Mr. Xaypaxa Douangvixa	Sanitation Division	Department of Water Supply
15	Mr. Phankham Monphachanh	Sanitation Division	Department of Water Supply
16	Representative	Department of International Cooperation	MPI
17	Representative	World Food Program	World Food Program
18	Dr. Oyuntogos	World Health Organization	World Health Organization
19	Mr. Carlos Vasquez	School Environment specialist	UNICEF
20	Mr. Georgia Radiess	Representative of KFW	KFW
21	Ms. Thavivanh	Representative of KFW	KFW
22	Dr. Bouakeo Souvanthong	Deputy Director General	Namsa-at
23	Mr. Soulivanh Pattivong	Country Program Officer	IFAD
24	Mr. Thongdeng Silakoune	Country Manager	UNAIDS
25	Representative	Lao Office Manager	UN Woman
26	Mr. Phomma Chanthilath	Representative of ADB	ADB
27	Mr. Sommai Faming	Head of UNIDO Operations	UNIDO
28	Dr.Avi Sarkar	Regional Advisor South-East Asia	UN-Habitat
29	Mr. Buahom Sengkhamyong	National Advisor Lao PDR	UN-Habitat
30	Mr. Juan Torres	GIS Expert	UN-Habitat
31	Mr. Khamphong Chaysavang	National Officer	UN-Habitat

a. Ministry of Labor and Social Welfare Building (disaster management office)

Objectives:

- Understand disaster risk reduction and climate change
- Check issues related to climate change (as part of AF Environmental and social policy)

Outcomes:

- Ultimate responsibility for disaster risk reduction and climate change lies with the Ministry of Natural Resources and Environment. This Ministry (MoNRE) has been established in 2011 by merging the Water Resource and Environment Administration (WREA) with departments of the National Land Management Authority (NLMA) in 2011. The main institutional challenge is mandate confusion/lack of coordination between department for climate change, disaster risk reduction, land use management and natural resources/water management, of which land use management and water management are the weakest.
- Attapeu is low lying province. Result: high flood level and evacuation often needed
- Saravane and Sekong have mountains: flood levels less high but landslides possible.
- Sekong has lot of mining activities which influence water resource availability

Conclusion:

- Coordination between climate change, disaster risk reduction, land use management and natural resources/water management needs to be improved and departments of land use management and water management need capacity strengthening.
- Consider impact of mining of water resource availability in target provinces

b. Ministry of Natural Resources and Environment

Objectives:

- Understand ministerial priorities regarding climate change, disaster risk reduction, land use management and water management.
- Check issues related to climate change and protection of natural habitats (as part of AF Environmental and social policy)
- Receive feedback on (concept note) proposal and decide on approach and planning for endorsement process.

Outcomes:

- Green light on concept note and little comments
- Agreement on approach and planning for endorsement process
- Land, water and climate change departments don't coordinate
- Capacity to collect and interpret data related to land management, water management and infrastructure is lacking
- Ministry is currently in the process of approving a work plan for developing a combined national water resource and land management policy/plan. This is an opportunity for this project to integrate climate change concerns and priorities in the new policy/plan (as proposed under output 1.3: policy notes for updating national plans on climate change and land and water management).
- Development plans will be updated at the provincial and district level in 2019, which will also be an opportunity for this project to integrate climate change concerns and priorities in these plans (as also proposed under output 1.3: updated provincial and district development plans)

Conclusion:

- Water management could be the entry point for addressing land use management issues and climate change and disaster risk reduction. Land use management would be more effective but is a bit sensitive. Possibly pay a technical expert during and after project to coordinate between departments and deliver outputs for plans and vulnerability assessments.
- Develop policy notes on how to integrate climate change into the water resource and land management policy/plan
- Integrate outcomes of the vulnerability assessments into local development plans during updating cycle in 2019.

c. Mekong River Commission (climate change and adaptation initiative)

Objectives:

- Understand water management and climate change issues in target provinces
- Check issues related to climate change and protection of natural habitats (as part of AF Environmental and social policy)

Outcomes:

- Little detailed info available for target provinces. However, an impact assessment of dams and climate change (under the flood management and mitigation program) to be published in 2016 could provide info.
- The Commission is piloting adaptation measures at the district level - flood resilient rice shows positive results
- Dams could potentially provide water (through drainage) to agriculture in all southern provinces. However, government is not successful to negotiate with owners of these dams to use the water.
- The Commission is willing to review the concept proposal.

Conclusion:

- Consider impacts of dams on floods, droughts, etc. Check the impact assessment in 2016
- Consider having the MRC review the concept after submission (before the writing the full proposal).

d. UNDP

Objectives:

- Check possible overlap in target areas
- Identify useful info/lessons learned from UNDP project for this project
- Check issues related to climate change (as part of AF Environmental and social policy)

Outcomes:

- The project 'Effective governance for small-scale rural infrastructure and disaster preparedness in a changing climate' has overlap in 2 provinces and proposes interventions relevant for this project. ICEM is conducting VA's on district level and water management lessons/proposed activities will be integrated in district level development plans. UNCDF provides budgets for implementing proposed hard interventions at district and village level.
- We have access to the Vulnerability assessments conducted by UNDP

Conclusion:

- UN-H office to liaise with UNDP office to avoid overlap at village level
- Consider focusing on larger villages/towns to distinguish approach and to 'reach' more people
- Focus on land use management to distinguish approach
- Conduct VA's at provincial level to distinguish approach
- Consider using ICEM VA's at district level to build provincial level VA's and to avoid costs

e. UN WOMEN

Objectives:

- Collect info on how to integrate Gender Equity and Women's Empowerment in (the design of) the project
- Check issues related to Gender Equity and Women's Empowerment (as part of AF Environmental and social policy)

Outcomes:

- Proposed to use women as the prime informants/experts for project design and during project (as they are often responsible for managing households (and water, food, wood, etc.)
- Consider that many communities can be resistant to new water and sanitation facilities.
- Proposed to partner with:
 - o Lao Women's Union (women committee in every community)
 - o Lao National Commission on Status of Women (in every ministry)

Conclusion:

- Use women (and youth and disabled people) as main informants for project design and execution
- Plan every step of the project together with above groups.
- Partner with Lao National commission on status of women in MoNRE

f. UNICEF

Objectives:

- Check possible issues related to Gender Equity and Women's Empowerment, Access and Equity and public health (as part of AF Environmental and social policy)
- Collect info about UNICEF's approach

Outcomes:

- UNICEF uses gender and disabled people approach for water and sanitation (in schools)
- Water levels are going down in the south of Lao due to rubber tree/coffee plantations (which deplete underground water resources.
- Hygiene education (in schools) is effective: snowball effect to households
- Dengue can be reduced by:
 - o using covers in latrines
 - o Drill surface where stagnant water
 - o Use vegetation to divert people from mosquito's
- UNICEF is willing to review the concept proposal.

Conclusion:

- Consider/analyse appropriateness of above solutions for this project
- Consider having UNICEF review the concept after submission (before the writing the full proposal).

g. IFAD

Objectives:

- Check possible overlap in target areas
- Identify useful info from IFAD project for this project
- Check issues related to Indigenous people (as part of AF Environmental and social policy)

Outcomes:

- The project 'Adaptation for Smallholder Agriculture Programme (ASAP) has overlap in 3 provinces and proposes interventions relevant for this project. IFAD suggests to focus on hygiene campaigns and link drainage/grey water to livelihood diversification (e.g. fishponds, home gardening).
- The project document of above project includes info on vulnerabilities of indigenous people in target areas.

Conclusion:

- Consider/analyse appropriateness of above solutions for this project
- Ensure UN-H has a distinguished approach
- Use IFAD info on vulnerabilities of indigenous people in target areas.

h. ADB

Objectives:

- Check possible overlap in target areas
- Identify useful info from ADB project for this project
- Check issues related to climate change (as part of AF Environmental and social policy)

Outcomes:

- ADB works on improving national EWS in ministries
- ADB works on WASH in small towns but no overlap with our target areas
- Community identified WASH related priorities: 1) water supply, 2) electricity, 3) irrigation
- ADB provides technical support to MoNRE on CC sensitive water supply (CCTA7905)
Main issues: water management does not work; land planning does not work (no enforcement and no knowledge, especially at the local level; Health ministry does not work effectively Suggestion: allocate funding to different departments in MoNRE to make them work (together)

Conclusion:

- Identify what ADB CC sensitive water supply pilot systems work
- Focus on water and land management and consider allocating funding to various departments in MoNRE

i. OXFAM

Objectives:

- Check possible issues related to Access and Equity, Marginalized and Vulnerable Groups, Gender Equity and Women's Empowerment, Indigenous Peoples and public health (as part of AF Environmental and social policy)
- Collect info about target areas related to above issues

Outcomes:

- Oxfam promotes gender equality by having women as heads of saving groups
- Oxfam works on improving EWS at all levels – currently it can take a week for info from national level to arrive at village level.
- Gender issue related to latrines: safety at night
- Sustainability issue for water supply facilities: lack of ownership – ensure ownership by paying 20 % through labour;
- Link between drought and wet season: how to efficiently safe water from river in tanks?

- Issues related to disabled people during floods: something to move them; person responsible for them
- Food problems are often related to lack of diversification

Conclusion:

- Create ownership over facilities/project by paying in labour and by paying small fees
- Latrine design: ensure safety for women at night
- Analyse water storage options
- Consider promoting livelihood diversification: fish ponds; home gardening, etc.
- Analyse effectiveness of EWS in villages

j. CARE

Objectives:

- Check possible issues related to Access and Equity, Marginalized and Vulnerable Groups, Indigenous Peoples and public health (as part of AF Environmental and social policy)
- Collect info about target areas related to above issues

Outcomes:

- CARE works in Sekong on food and livelihood issues. Challenge: explosions
- Water issues: collection time (up to 6 hours/day)
- Women heads of income and nutrition groups (coffee and livelihood diversification)
- Cooperation: Lao disabled people association (but not reliable) WFP: labor for food
- CARE works on CC capacity development tools in other provinces. Important: farmers cannot rely on calendar anymore

Conclusion:

- Ensure good assessment of explosives.
- Analyse where people need to travel long distances for clean water
- Explore option to work with Lao disabled people association

k. HPA

Objectives:

- Check possible issues related to Access and Equity, Marginalized and Vulnerable Groups, Indigenous Peoples and public health (as part of AF Environmental and social

- policy)
- Collect info about target areas related to above issues

Outcomes:

- HPA works on nutrition by looking at water, sanitation and health care
- Impact of interventions can impact routine of the poorest negatively
- Malaria program in Sekong and Attapeu – Saravane highest. Approach: finish malaria pills; use nets; set-up medical posts in villages.
- Malaria follows the migrant workers that working in logging and mining
- Dengue approach: prevention related to water and CLTs
- Hygiene approach: hand washing works, especially in schools. Important to change behaviour and then demand will rise
- Suggestion to check what FINNmap has done on mapping land
- HPA is willing to review the concept proposal.

Conclusion:

- Hygiene approach: focus on hand washing in schools
- Dengue prevention: reduce 'open' water and increase CLTs
- Consider having HPA review the concept after submission (before the writing the full proposal) and explore options for cooperation

I. UXO Lao

Objectives:

- Check procedure for NRA permission to start sub-projects in target areas
- Check risks in target villages

Outcomes:

- UXO Lao will check risks in target settlements/communities
- If there is no information for settlements, a survey will be conducted
- If there is a risk, the area will be cleared

Conclusion:

- Hand-over the list of target settlements to UXO Lao
- Include questions about UXO's in the vulnerability assessment

Conclusions/key decisions:

- Coordination between climate change, disaster risk reduction, land use planning/management and natural resources/water management needs to be improved and departments of land use planning/management and water management need capacity strengthening. Water management could be the entry point for addressing land use management issues and climate change and disaster risk reduction
- Use women (and youth and disabled people) as main informants for project design and execution and plan every step of the project, including toilet design, together with above groups; partner with Lao National commission on status of women in MoNRE; Explore option to work with Lao disabled people association
- Analyse options of duplicating resilient infrastructure systems as used by what ADB, IFAD and UNDP.
- Analyse effectiveness of EWS in villages; Ensure good assessment of explosives
- Analyse water storage options and how long people need to travel for clean water

- ❑ Create ownership over facilities/project by paying in labour and by paying small fees
- ❑ Hygiene approach: focus on hand washing in schools
- ❑ Dengue prevention: reduce 'open' water and increase CLTs
- ❑ Consider focusing on larger villages/towns to distinguish approach and to 'reach' more people
- ❑ Consider impact of mining, logging and dams on water resource availability and flooding in target provinces
- ❑ Consider promoting livelihood diversification: fish ponds, home gardening
- ❑ Consider the MRC, UNICEF and HPA review to review the concept after submission (before the writing the full proposal).

Annex 7: AoC example between UN-Habitat and the provinces, including spelled out responsibilities/roles regarding project activities, outputs, M & E arrangements, management of project risks (safeguards), etc.

AGREEMENT OF COOPERATION
between
THE UNITED NATIONS HUMAN SETTLEMENTS PROGRAMME
and
NAM PAPA STATE-OWNED ENTERPRISE ATTAPEU, LAO PDR
[... DISTRICTS]

THIS AGREEMENT OF COOPERATION (the “Agreement”) is entered into by the United Nations Human Settlements Programme, originally established as the United Nations Centre for Human Settlements by resolution of the General Assembly of the United Nations 32/162 of 19 December 1977, and thereafter transformed into a subsidiary organ of the General Assembly of the United Nations by its resolution 56/206 of 21 December 2001, with Headquarters in Nairobi, Kenya (“UN-Habitat”); and the Nam Papa State-Owned Enterprise Attapeu established in 1998 under the Business Law No. 03/94/NA, which was superseded by the Enterprise Law No. 09/NA dated 09 Nov 2005, and mandated with the delivery of safe water according to PM Decree No. 37 to the citizens of Attapeu Province, with Headquarters in ... Districts, Attapeu Province, Lao PDR (“NPSE-ATTAPEU”);

WHEREAS, UN-Habitat is the coordinating agency within the United Nations System for human settlements activities and focal point for monitoring, evaluation and implementation of the Habitat Agenda, as well as the task manager of the human settlements chapter of Agenda 21 and responsible for promoting and consolidating collaboration with all partners, including local authorities and private and non-governmental organizations in the implementation of the Habitat Agenda and the Millennium Development Goals of significantly improving the lives of at least 100 million slum dwellers by the year 2020; and

WHEREAS, NPSE-ATTAPEU is a state-owned enterprise responsible for the delivery of safe water to the citizens of Attapeu Province, Lao PDR and its mandate is to finance, implement, and manage and operate all formalized water supply systems in the urban areas of Attapeu Province. It is required to provide safe water, at least cost to its consumers, whilst covering all costs, such as debt service, depreciation, and operation and maintenance. NPSE-ATTAPEU reports to the Department of Housing and Urban Planning (“DHUP”), which is under the aegis of the Ministry of Public Works and Transport (“MPWT”). DHUP provides technical and management guidelines to the NPSEs.

NOW, THEREFORE, on the basis of mutual trust and in the spirit of friendly cooperation, UN-Habitat and NPSE-ATTAPEU, (the “Parties”) have entered into this Agreement.

Article I
Documents

1. This Agreement consists of this document and the following Annexes that form the integral part of it:
 - (a) Annex A (“General Terms and Conditions”). NPSE-ATTAPEU is named “Cooperating Entity/Contractor” in this Annex.
 - (b) Annex B (Project Document and Work Plan”, including Implementation Schedule); and

(c) Annex C (“Budget”, including Payment Schedule).

2. The Parties agree that in the event and to the extent of any conflict between the terms and conditions of this document and the Annexes or between any of the Annexes, this document shall prevail, followed by the Annexes in the order enumerated above.

Article II **Objectives and Scope**

1. The purpose of this Agreement is to establish the general terms and conditions under which the Parties shall collaborate to achieve the objectives to be set out below for both UN-Habitat and NPSE-ATTAPEU through collaborative work. The technical expertise from both organizations, which shall be used in this collaboration, would allow a more effective and efficient utilization of resources made available to both UN-Habitat and NPSE-ATTAPEU.

2. Subject to their respective regulations, rules, policies, practice, procedures and availability of funds, the Parties shall collaborate to implementing the construction of climate change and disaster resilient infrastructure in the Districts of ..., Attapeu Province, Lao PDR (the “Project”), within the Adaptation project ‘Enhancing the climate and disaster resilience of the most vulnerable rural and emerging urban human settlements in Lao PDR.’

3. The project aims at supporting

4. The Project, which is described in a more detailed manner in ANNEX B hereto, aims at

Article III **General Responsibilities of the Parties**

1. The Parties agree to carry out their respective responsibilities in accordance with the provisions of this Agreement. The Parties agree to join efforts and to maintain close working relationships in order to achieve the objectives of the Project.

2. The Parties shall keep each other informed of all relevant activities pertaining to the Project, and shall hold consultations every one (1) month, or at any time as any Party considers it appropriate, on the status of this cooperation, including any circumstances that may affect the achievement of its objectives.

3. The Parties shall refrain from any action that may adversely affect the interests of the other party and shall fulfill their commitments with fullest regard for the terms and conditions of this Agreement and the principles of the United Nations and UN-Habitat. The Parties shall keep the United Nations Resident Coordinator in Lao PDR and UN-Habitat’s Human Settlements Officer ROAP responsible for Laos, as well as the Chief Technical Advisor Laos, fully informed of all actions undertaken by them in carrying out this Agreement.

Article IV **Responsibilities of UN-Habitat**

1. Under this Agreement, UN-Habitat, through its Regional Office of Asia-Pacific, shall be responsible for the overall supervision and backstopping of the project execution, including:

- (a) Advising, as appropriate, NPSE-ATTAPEU in setting up the project work plan and implementation modalities;
- (b) Providing funds to NPSE-ATTAPEU to a maximum of USD..... for undertaking the activities as set out in Annex B;
- (c) Reviewing and monitoring the activities of the project including design and procurement;
- (d) Maintaining communication with the main coordinating agency, the Department of Housing and Urban Planning of the Ministry of Public Works and Transport, regarding this collaboration and facilitating the presentation of main achievements and lessons learned;
- (e) Keeping a dialogue with major partners involved on implementation of a pro-poor policy in Districts with regard to resilient infrastructure connection, tariff structure and related issues; and
- (f) Reviewing and validating progress reports prepared by NPSE-ATTAPEU.

Article V
Responsibilities of NPSE-ATTAPEU

1. Under this Agreement, NPSE-ATTAPEU shall be responsible for the implementation of the Project as described in Annex B, including:

- (a) Arranging and coordinating the technical studies, project surveys, designs, and procurement of goods and services;
- (b) Together with the administration authority of District and the beneficiaries, implementing all resilient infrastructure facilities;
- (c) Developing a participatory framework with the community for project implementation;
- (d) Facilitating and participating in stakeholders meetings on pro-poor policies related to increasing access to improved and affordable resilient infrastructure facilities;
- (e) Participating as necessary in all capacity building initiatives;
- (f) Monitoring project activities in coordination with the community; and
- (g) Reporting regularly to UN-HABITAT on the progress of the project implementation and prepare all project reports as required.

Article VI
Financial Arrangements

1. As part of the UN-Habitat cooperation under this Agreement, and in accordance with Annexes B and C, UN-Habitat shall provide NPSE-ATTAPEU, with funds up to a maximum amount of USD.... (US Dollars) in accordance with the following schedule:

- (a) The first installment of USD..... (US Dollars), equivalent to ...% of the maximum amount set out in this Article, shall be made available upon signature of this Agreement by the Parties and receipt by UN-Habitat of a payment request.
- (b) A second installment of USD.... (US Dollars), equivalent to ...% of the maximum amount set out in this Article, shall be made available, provided that UN-Habitat is satisfied that NPSE-ATTAPEU is in compliance with this Agreement (outputs indicated in the Payment Schedule have been provided), a submission of a financial statement showing the use of funds so far provided, as certified by the competent financial authority of NPSE-ATTAPEU, and a payment request.

(c) Etc.

2. UN-Habitat shall make the above payments within thirty (30) days following the receipt of the appropriate payment request. The statements referred to above shall be itemized as per budget in Annex C. Supporting documents shall be available to UN-Habitat upon request, together with payment request.

3. Payments shall be made by UN-Habitat in United States Dollars in the following bank account

Bank Name: ...
Bank Address: ...
Account Title: ...
Account Number: ...
Swift Code: ...
Signatories (2): ...

4. UN-Habitat shall not make any payment for costs in excess of the maximum amount indicated in paragraph 1 above or in any duly signed amendment thereof, or which are otherwise not in accordance with this Agreement.

5. NPSE-ATTAPEU is authorized to make variations not exceeding 10 percent on any one budget line item, as set out in Annex C hereto, provided that the maximum amount set out in paragraph 1 above is not exceeded. Any variation exceeding that percentage must be previously approved in writing by UN-Habitat.

6. Within thirty (30) days, NPSE-ATTAPEU shall refund to UN-Habitat, upon its written request, any funds provided in excess of the maximum amount set out in paragraph 1 above, or any duly signed amendment thereof. Likewise, NPSE-ATTAPEU shall refund to UN-Habitat any non-duly authorized disbursements. UN-Habitat may deduct such refunds from future payments due to NPSE-ATTAPEU under this Agreement, or otherwise, or recover them by any other means, as UN-Habitat may consider appropriate and necessary.

7. NPSE-ATTAPEU shall report to UN-Habitat on any interest earned from funds above. Such interests shall be used by NPSE-ATTAPEU in agreement with UN-Habitat for the purposes of the Project.

8. NPSE-ATTAPEU shall provide UN-Habitat with certified audited report on the use of funds.

9. Upon termination of this Agreement, NPSE-ATTAPEU shall refund to UN-Habitat, within thirty (30) days of the date of termination, any fund, which may have not been disbursed or legally committed to that date.

Article VII

Reporting Requirements, Maintenance of Records and Audit

1. NPSE-ATTAPEU shall prepare and submit to UN-Habitat, progress narrative and financial report every six (6) months.

2. Within ninety (90) days of the completion of the Project or of the termination of the Project, NPSE-ATTAPEU, in consultation with and inputs by UN-Habitat, shall prepare and submit to UN-Habitat a final narrative and financial report on the outcome of the Project.
3. Also, upon completion of the Project, NPSE-ATTAPEU shall maintain the records relating to the Project for a period of at least six (6) years, unless otherwise agreed upon between the Parties.
4. UN-Habitat has the right, at its own expense, to have the records of NPSE-ATTAPEU pertaining to the implementation of the Project reviewed and audited.

(a) NPSE-ATTAPEU shall facilitate inspection and audit of the Project by the United Nations Office of the Internal Oversight Services, or any other person duly authorized by UN-Habitat. Should they at any time wish to do so, the United Nations Board of Auditors may also carry out an audit of the Project. Audits of the Project shall include, *inter alia*, the examination of the Project accounting records in order to determine that the charging of administrative and operational support costs to the Project complies with those specified in the annexes to this Agreement. For auditing purposes, Project accounting records shall be retained for the six (6) years following the completion of the Project; and

(b) NPSE-ATTAPEU shall facilitate visits by the duly authorised persons to the Project site(s) to evaluate the progress and achievements of the Project during its period of implementation or thereafter.

5. NPSE-ATTAPEU, in consultation with UN-Habitat, shall engage an audit firm to conduct an independent audit of the Project as required in paragraphs Article VI.1.c and 1.d. The audit report shall state whether the financial accounts on the use of the funds provided to NPSE-ATTAPEU give a true and fair view of the financial condition and performance of the Project over the period of its operation, the expenditures have been incurred in accordance with the objectives outlined in this Agreement and that all project expenditures are supported by adequate documentation. The report should include such comments as the auditor may deem appropriate in respect of Project operations generally.

Article VIII **Miscellaneous**

1. This Agreement shall enter into force upon signature by Parties, being effective from the date of the latest signature, and shall remain valid for a period of twenty four months (24) months, or until the date on which the activities, as set forth in Annex B hereto, are orderly completed or when the Parties decide to terminate them, whichever comes first.
2. Should it become evident that an extension of the duration is required, or that any other change should be made, the Parties shall record such a change in an Amendment/Addendum to this Agreement in accordance with the procedure set forth in clause 21 of Annex A.
3. Any notice required to be given by either Party under this Agreement shall be given in writing and shall be deemed given when actually received by the other party, to the following addresses:

<u>To UN-Habitat</u>	<u>To NPSE-ATTAPEU</u>
<p>For Operational Matters: Name : ... Title : ... Address : ... Tel : ... Fax : ... Email : ...</p> <p>For Financial & Policy Matters: Name : ... Title : ... Address : ... Tel : ... Fax : ... Email : ...</p>	<p>For Operational Matters: Name : ... Title : ... Address : ... Tel : ... Fax : ...</p> <p>For Financial & Policy Matters: Name : ... Title : ... Address : ... Tel : ... Fax : ...</p>

IN WITNESS WHEREOF the undersigned duly authorized representatives of UN-Habitat and NPSE-ATTAPEU, have signed this Agreement in two original copies at the place and on the day below written.

UN-Habitat	<u>NPSE-ATTAPEU</u>
<hr/> ...	<hr/> ...
Place: ...	Place: ...
Date: _____	Date: _____

Annex A

GENERAL TERMS AND CONDITIONS

1.0 LEGAL STATUS

The Cooperating Entity/Contractor shall be considered as having the legal status of an independent Cooperating Entity/Contractor *vis-à-vis* UN-Habitat. The Cooperating Entity's/Contractor's personnel and sub-contractors shall not be considered in any respect as being the employees or agents of UN-Habitat.

2.0 SOURCE OF INSTRUCTIONS

The Cooperating Entity/Contractor shall neither seek nor accept instructions from any authority external to UN-Habitat in connection with the performance of its services under this Agreement/Contract. The Cooperating Entity/Contractor shall refrain from any action that may adversely affect the United Nations or UN-Habitat and shall fulfill its commitments with the fullest regard to the interests of UN-Habitat.

3.0 COOPERATING ENTITY/CONTRACTOR'S RESPONSIBILITY FOR EMPLOYEES

The Cooperating Entity/Contractor shall be responsible for the professional and technical competence of its employees and will select, for work under this Agreement/Contract, reliable individuals who will perform effectively in the implementation of this Agreement/Contract, respect the local customs, and conform to a high standard of moral and ethical conduct.

4.0 ASSIGNMENT

The Cooperating Entity/Contractor shall not assign, transfer, pledge or make other disposition of this Agreement/Contract or any part thereof, or any of The Cooperating Entity's/Contractor's rights, claims or obligations under this Agreement/Contract except with the prior written consent of UN-Habitat.

5.0 SUB-CONTRACTING

In the event the Cooperating Entity/Contractor requires the services of sub-contractors, the Cooperating Entity/Contractor shall obtain the prior written approval and clearance of UN-Habitat for all sub-contractors. The approval of UN-Habitat of a sub-contractor shall not relieve The Cooperating Entity/Contractor of any of its obligations under this Agreement/Contract. The terms of any sub-contract shall be subject to and conform to the provisions of this Agreement/Contract.

6.0 OFFICIALS NOT TO BENEFIT

The Cooperating Entity/Contractor warrants that no official of the United Nations and UN-Habitat has received or will be offered by the Cooperating Entity/Contractor any direct or indirect benefit arising from this Agreement/Contract or the award thereof. The Cooperating Entity/Contractor agrees that breach of this provision is a breach of an essential term of this Agreement/Contract.

7.0 INDEMNIFICATION

The Cooperating Entity/Contractor shall indemnify, hold and save harmless, and defend, at its own expense, UN-Habitat, its officials, agents, servants and employees from and against all suits, claims, demands, and liability of any nature or kind, including their costs and expenses, arising out of acts or omissions of the Cooperating Entity/Contractor, or the Cooperating Entity/Contractor's employees, officers, agents or sub-contractors, in the performance of this Agreement/Contract. This provision shall extend, *inter alia*, to claims and liability in the nature of workmen's compensation, products liability and liability arising out of the use of patented inventions or devices, copyrighted material or other intellectual property by the Cooperating Entity/Contractor, its employees, officers, agents, servants or sub-contractors. The obligations under this Article do not lapse upon termination of this Agreement/Contract.

8.0 INSURANCE AND LIABILITIES TO THIRD PARTIES

8.1 The Cooperating Entity/Contractor shall provide and thereafter maintain insurance against all risks in respect of its property and any equipment used for the execution of this Agreement/Contract.

8.2 The Cooperating Entity/Contractor shall provide and thereafter maintain all appropriate workmen's compensation insurance, or the equivalent, with respect to its employees to cover claims for personal injury or death in connection with this Agreement/Contract.

8.3 The Cooperating Entity/Contractor shall also provide and thereafter maintain liability insurance in an adequate amount to cover third party claims for death or bodily injury, or loss of or damage to property, arising from or in connection with the provision of services under this Agreement/Contract or the operation of any vehicles, boats, airplanes or other equipment owned or leased by the Cooperating Entity/Contractor or its agents, servants, employees or sub-contractors performing work or services in connection with this Agreement/Contract.

8.4 Except for the workmen's compensation insurance, the insurance policies under this Article shall:

8.4.1 Name UN-Habitat as additional insured;

8.4.2 Include a waiver of subrogation of the Cooperating Entity/Contractor's rights to the insurance carrier against UN-Habitat; and

8.4.3 Provide that UN-Habitat shall receive thirty (30) days written notice from the insurers prior to any cancellation or change of coverage.

8.5 The Cooperating Entity/Contractor shall, upon request, provide UN-Habitat with satisfactory evidence of the insurance required under this Article.

9.0 ENCUMBRANCES/LIENS

The Cooperating Entity/Contractor shall not cause or permit any lien, attachment or other encumbrance by any person to be placed on file or to remain on file in any public office or on file with UN-Habitat against any monies due or to become due for any work done or materials furnished under this Agreement/Contract, or by reason of any other claim or demand against the Cooperating Entity/Contractor.

10.0 TITLE TO EQUIPMENT

Title to any equipment and supplies that may be furnished by UN-Habitat shall rest with UN-Habitat and any such equipment shall be returned to UN-Habitat at the conclusion of this Agreement/Contract or when no longer needed by the Cooperating Entity/Contractor. Such equipment, when returned to UN-Habitat, shall be in the same condition as when delivered to the Cooperating Entity/Contractor, subject to normal wear and tear. The Cooperating Entity/Contractor shall be liable to compensate UN-Habitat for equipment determined to be damaged or degraded beyond normal wear and tear.

11.0 COPYRIGHT, PATENTS AND OTHER PROPRIETARY RIGHTS

11.1 Except as is otherwise expressly provided in writing in the Agreement/Contract,] UN-Habitat shall be entitled to all intellectual property and other proprietary rights including, but not limited to, patents, copyrights, and trademarks, with regard to products, processes, inventions, ideas, know-how, or documents and other materials which the Cooperating Entity/Contractor has developed for UN-Habitat under the Agreement/Contract and which bear a direct relation to or are produced or prepared or collected in consequence of, or during the course of, the performance of the Agreement/Contract, and the Cooperating Entity/Contractor acknowledges and agrees that such products, documents and other materials constitute works made for hire for UN-Habitat.

11.2 At the request of UN-Habitat, the Cooperating Entity/Contractor shall take all necessary steps, execute all necessary documents and generally assist in securing such proprietary rights and transferring or licensing them to UN-Habitat in compliance with the requirements of the applicable law.

11.3 At the request of UN-Habitat, the Cooperating Entity/Contractor shall take all necessary steps, execute all necessary documents and generally assist in securing such proprietary rights and transferring or licensing them to UN-Habitat in compliance with the requirements of the applicable law and of this Agreement/Contract.

11.4 Subject to the foregoing provisions, all maps, drawings, photographs, mosaics, plans, reports, estimates, recommendations, documents, and all other data compiled by or received by the Cooperating Entity/Contractor under the Agreement/Contract shall be the property of UN-Habitat, shall be made available for use or inspection by UN-Habitat at reasonable times and in reasonable places, shall be treated as confidential, and shall be delivered only to UN-Habitat authorized officials on completion of work under the Agreement/Contract.

12.0 USE OF NAME, EMBLEM OR OFFICIAL SEAL OF THE UNITED NATIONS AND UN-Habitat

The Cooperating Entity/Contractor shall not advertise or otherwise make public the fact that it is a Cooperating Entity/Contractor with UN-Habitat, nor shall the Cooperating Entity/Contractor, in any manner whatsoever use the name, emblem or official seal of UN-Habitat or the United Nations, or any abbreviation of the name of UN-Habitat in connection with its business or otherwise.

13.0 CONFIDENTIAL NATURE OF DOCUMENTS AND INFORMATION

Information and data that is considered proprietary by either Party and that is delivered or disclosed by one Party ("Discloser") to the other Party ("Recipient") during the course of performance of the Agreement/Contract, and that is designated as confidential ("Information"), shall be held in confidence by that Party and shall be handled as follows:

13.1 The recipient ("Recipient") of such information shall:

13.1.1 Use the same care and discretion to avoid disclosure, publication or dissemination of the Discloser's Information as it uses with its own similar information that it does not wish to disclose, publish or disseminate; and

13.1.2 Use the Discloser's Information solely for the purpose for which it was disclosed.

13.2 Provided that the Recipient has a written Agreement/Contract with the following persons or entities requiring them to treat the Information confidential in accordance with this Agreement/Contract and this Article 13, the Recipient may disclose Information to:

13.2.1 Any other party with the Discloser's prior written consent; and

13.2.2 The Recipient's employees, officials, representatives and agents who have a need to know such Information for purposes of performing obligations under the Agreement/Contract, and employees officials, representatives and agents of any legal entity that it controls, controls it, or with which it is under common control, who have a need to know such

Information for purposes of performing obligations under this Agreement/Contract, provided that, for these purposes a controlled legal entity means:

13.2.2.1 A corporate entity in which the Party owns or otherwise controls, whether directly or indirectly, over fifty percent (50%) of voting shares thereof; or

13.2.2.2 Any entity over which the Party exercises effective managerial control; or

13.2.2.3 For UN-Habitat, a governing organ or subsidiary organ of UN-Habitat established in accordance with the Charter of UN-Habitat.

13.3 The Cooperating Entity/Contractor may disclose Information to the extent required by law, provided that, subject to and without any waiver of the privileges and immunities of UN-Habitat, the Cooperating Entity/Contractor will give UN-Habitat sufficient prior notice of a request for the disclosure of Information in order to allow UN-Habitat to have a reasonable opportunity to take protective measures or such other action as may be appropriate before any such disclosure is made.

13.4 UN-Habitat may disclose Information to the extent as required pursuant to the Charter of United Nations, resolutions or regulations of the General Assembly, or rules promulgated by the Secretary-General.

13.5 The Recipient shall not be precluded from disclosing Information that is obtained by the Recipient from a third party without restriction, is disclosed by the Discloser to a third party without any obligation of confidentiality, is previously known by the Recipient, or at any time is developed by the Recipient completely independently of any disclosures hereunder.

13.6 These obligations and restrictions of confidentiality shall be effective during the term of the Agreement/Contract, including any extension thereof, and, unless otherwise provided in the Agreement/Contract, shall remain effective following any termination of the Agreement/Contract.

14.0 FORCE MAJEURE; OTHER CHANGES IN CONDITIONS

14.1 In the event of and as soon as possible after the occurrence of any cause constituting *force majeure*, The Cooperating Entity/Contractor shall give notice and full particulars in writing to UN-Habitat, of such occurrence or change if the Cooperating Entity/Contractor is thereby rendered unable, wholly or in part, to perform its obligations and meet its responsibilities under this Agreement/Contract. The Cooperating Entity/Contractor shall also notify UN-Habitat of any other changes in conditions or the occurrence of any event that interferes or threatens to interfere with its performance of this Agreement/Contract. On receipt of the notice required under this Article, UN-Habitat shall take such action as, in its sole discretion; it considers to be appropriate or necessary in the circumstances, including the granting to the Cooperating Entity/Contractor of a reasonable extension of time in which to perform its obligations under this Agreement/Contract.

14.2 If the Cooperating Entity/Contractor is rendered permanently unable, wholly, or in part, by reason of *force majeure* to perform its obligations and meet its responsibilities under this Agreement/Contract, UN-Habitat shall have the right to suspend or terminate this Agreement/Contract on the same terms and conditions as are provided for in Article 15, "Termination", except that the period of notice shall be seven (7) days instead of thirty (30) days.

14.3 *Force majeure* as used in this Article means acts of God, war (whether declared or not), invasion, revolution, insurrection, or other acts of a similar nature or force.

14.4 The Cooperating Entity/Contractor acknowledges and agrees that, with respect to any obligations under this Agreement/Contract that the Cooperating Entity/Contractor must perform in or for any areas in which UN-Habitat is engaged in, preparing to engage in, or disengaging from any peacekeeping, humanitarian or similar operations, any delays or failure to perform such obligations arising from or relating to harsh conditions within such areas or to any incidents of civil unrest occurring in such areas shall not, in and of itself, constitute *force majeure* under the Agreement/Contract.

15.0 TERMINATION

15.1 Either party may terminate this Agreement/Contract for cause, in whole or in part, upon thirty (30) days notice, in writing, to the other party. The initiation of arbitral proceedings in accordance with Article 16.2 ("Arbitration"), below, shall not be deemed a termination of this Agreement/Contract.

15.2 UN-Habitat may terminate forthwith this Agreement/Contract at any time should the mandate or the funding of the Project be curtailed or terminated, in which case the Cooperating Entity/Contractor shall be reimbursed by UN-Habitat for all reasonable costs incurred by the Cooperating Entity/Contractor prior to receipt of the notice of termination.

15.3 In the event of any termination by UN-Habitat under this Article, no payment shall be due from UN-Habitat to the Cooperating Entity/Contractor except for work and services satisfactorily performed in conformity with the express terms of this Agreement/Contract.

15.4 Should the Cooperating Entity/Contractor be adjudged bankrupt, or be liquidated or become insolvent, or should the Cooperating Entity/Contractor make an assignment for the benefit of its creditors, or should a Receiver be appointed on account of the insolvency of the Cooperating Entity/Contractor, UN-Habitat may, without prejudice to any other right or remedy

it may have under the terms of these conditions, terminate this Agreement/Contract forthwith. The Cooperating Entity/Contractor shall immediately inform the UN of the occurrence of any of the above events.

16.0 SETTLEMENT OF DISPUTES

16.1 Amicable Settlement The Parties shall use their best efforts to settle amicably any dispute, controversy or claim arising out of this Agreement/Contract or the breach, termination or invalidity thereof. Where the parties wish to seek such an amicable settlement through conciliation, the conciliation shall take place in accordance with the UNCITRAL Conciliation Rules then obtaining, or according to such other procedure as may be agreed between the parties.

16.2 Arbitration: Any dispute, controversy, or claim between the Parties arising out of the Agreement/Contract or the breach, termination, or invalidity thereof, unless settled amicably under Article 16.1, above, within sixty (60) days after receipt by one Party of the other Party's written request for such amicable settlement, shall be referred by either Party to arbitration in accordance with the UNCITRAL Arbitration Rules then obtaining. The decisions of the arbitral tribunal shall be based on general principles of international commercial law. For all evidentiary questions, the arbitral tribunal shall be guided by the Supplementary Rules Governing the Presentation and Reception of Evidence in International Commercial Arbitration of the International Bar Association, 28 May 1983 edition. The arbitral tribunal shall be empowered to order the return or destruction of goods or any property, whether tangible or intangible, or of any confidential information provided under the Agreement/Contract, order the termination of the Agreement/Contract, or order that any other protective measures be taken with respect to the goods, services or any other property, whether tangible or intangible, or of any confidential information provided under the Agreement/Contract, as appropriate, all in accordance with the authority of the arbitral tribunal pursuant to Article 26 ("Interim Measures of Protection") and Article 32 ("Form and Effect of the Award") of the UNCITRAL Arbitration Rules. The arbitral tribunal shall have no authority to award punitive damages. In addition, unless otherwise expressly provided in this Agreement/Contract, the arbitral tribunal shall have no authority to award interest in excess of the London Inter-Bank Offered Rate ("LIBOR") then prevailing, and any such interest shall be simple interest only. The Parties shall be bound by any arbitration award rendered as a result of such arbitration as the final adjudication of any such dispute, controversy, or claim.

17.0 PRIVILEGES AND IMMUNITIES

Nothing in or relating to this Agreement/Contract shall be deemed a waiver, express or implied, of any of the privileges and immunities of the United Nations, including UN-Habitat.

18.0 TAX EXEMPTION

18.1 Section 7 of the Convention on the Privileges and Immunities of the United Nations provides, *inter-alia*, that United Nations, including UN-Habitat, is exempt from all direct taxes, except charges for public utility services, and is exempt from customs duties and charges of a similar nature in respect of articles imported or exported for its official use. In the event any governmental authority refuses to recognize UN-Habitat exemption from such taxes, duties or charges, the Cooperating Entity/Contractor shall immediately consult with UN-Habitat to determine a mutually acceptable procedure.

18.2 Accordingly, the Cooperating Entity/Contractor authorizes UN-Habitat to deduct from the Cooperating Entity/Contractor's invoice any amount representing such taxes, duties or charges, unless the Cooperating Entity/Contractor has consulted with UN-Habitat before the payment thereof and UN-Habitat has, in each instance, specifically authorized the Cooperating Entity/Contractor to pay such taxes, duties or charges under protest. In that event, the Cooperating Entity/Contractor shall provide UN-Habitat with written evidence that payment of such taxes, duties or charges has been made and appropriately authorized.

AF SAFEGAURDS:

19.0 COMPLIANCE WITH THE LAW

The proposed project will be executed in compliance with national and international laws.

- All project activities will be implemented in accordance with national laws.
- If required, Environmental Examination (IEE) will be completed for sub-projects.
- UN-Habitat adheres to UN-Host Country Agreements, which are operationalized within the proposed project to ensure clear and efficient communication between project staff and the Lao PDR Government.
- NPSE-ATTAPEU (and UN-Habitat) will comply with the following laws:
 - Lao PDR Urban Planning Law;
 - Participatory Land Use Planning (PLUP) and Planning for climate change guidelines;
 - Lao PDR Water and Resource Law;
 - Lao PDR Construction Law; Lao PDR Building Codes and Building Control;
 - Building Back Better Principles Guideline for Shelter and Sanitation;
 - The Lao National Unexploded Ordnance Programme;
 - Lao PDR Water Supply Law;

20.0 ACCESS AND EQUITY

The proposed project recognizes that vulnerable and marginalized sectors of the population often face limited access to services and resources. As such the proposed project will work to ensure the equity of benefits.

- One of the main objectives of the proposed project is to increase the sustainable access to basic infrastructure systems and services.
- NPSE-ATTAPEU (and UN-Habitat) will ensure that all stakeholders are informed of the resulting benefits of the project and have equitable access to these benefits.

21.0 MARGINALIZED AND VULNERABLE GROUPS

The project will build the capacity of marginalized and vulnerable groups and increase climate resilience.

- Through capacity building training and community action planning workshops will enable vulnerable and marginalized groups to build resilience.
- Marginalized groups will be given equal opportunity and encouraged to engage with project development through meaningful participation at all settlement levels
- The proposed project will consider the needs for marginalized and vulnerable groups, along with youth, women, disabled people and ethnic groups at all stages of the project.
- Marginalized groups will be involved as active agents during stakeholder discussions and engagements.

NPSE-ATTAPEU (and UN-Habitat) will ensure above.

22.0 HUMAN RIGHTS

The human rights principles underline all the work of UN-Habitat. The demonstrated implementation of HRBA across UN-Habitat projects will be continued throughout the development of the proposed project.

NPSE-Attapeu will be responsible for the delivery of resilient infrastructure to the community and urban areas. Within this responsibility NPSE-Attapeu agrees to develop a participatory framework with the community for project implementation and facilitate the participation of stakeholders within meetings relating to the components of the proposed project.

- A grievance mechanism will be established. This mechanism will ensure there is an open space for communities and households to share any instance of grievance, with a clear channel for a response and subsequent action taken as necessary.

The Precautionary Principle will be applied at all stages of the proposed project cycle. This principle was adopted into international law through the signing of the 1992 Rio Declaration, of which UN-Habitat is a signatory.

23.0 GENDER EQUITY AND WOMEN'S EMPOWERMENT

Prior to project implementation, the UN-Habitat's Vulnerability Assessment (VA) will establish and recognize the needs of the marginalized and the vulnerable, including women. It will do this by using techniques such as women's only focus groups and collecting gender disaggregated data. Where the VA identifies vulnerable individuals or groups, recommend targeted and differentiated measures will ensure that the adverse impacts do not fall disproportionately on them.

- The building of small-scale community based resilient infrastructure will be implemented in a way that ensures the equity of benefits to all members of the community.
- As detailed in the ESMP UN-Habitat is a signatory to the UN Women Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) and the ILO Conventions No. 100, 111, 156 and 183, and as such the project will work to ensure that these conventions are upheld
 - UN-Habitat recognizes the importance of collaboration. Annex 5 of the project proposal, details consultations that were held with UN Women, UNICEF and OXFAM regarding issues of gender, to further strengthen the outcomes of the proposed project.
 - The project will include a quota system for female engagement within stakeholder participation and community committees
 - The established grievance mechanism will provide a channel to report any instances of discrimination.
 - Throughout project implementation gender and cultural sensitivity training will be promoted within disaster risk management.
- A specific objective of the proposed project is to ensure a gender balance for the water supply and sanitation sector.
- NPSE-ATTAPEU (and UN-Habitat) will support progress in Lao PDR towards Political Stability, Order, Justice and Gender Equality and will ensure gender equity within the development of disaster preparedness and risk mitigation.

24.0 CORE LABOUR RIGHTS

The proposed project will engage closely with the Ministry of Labour and social welfare.

- As detailed within the ESMP, UN-Habitat is a signatory of all ILO conventions, and as such measures will be implemented at all stages of the proposed project cycle to ensure that these standards are being adhered to.
- Effective monitoring of the proposed project will further strengthen the compliance to Core Labour Rights.

- UN-Habitat's Grievance Mechanism will also provide an efficient channel to report instances of grievance, should they occur throughout the development of the proposed project.
- NPSE-ATTAPEU (and UN-Habitat) will support community ownership of the proposed project through engagement with the labour and construction of infrastructure.

25.0 INDIGENOUS PEOPLE

Indigenous peoples are identified as important stakeholders to be involved throughout the development and implementation of the proposed project.

- UN-Habitat will engage representatives of communities from all groups of the population. A representative of Indigenous Peoples within this body of stakeholders will ensure that the opinions and particular challenges of indigenous peoples are heard and incorporated into the design of the proposed project.
- The proposed project will be designed and planned in a manner that respects and is sensitive to the needs and cultural practices of indigenous people and marginalized groups. This approach will ensure equal access and the equity of benefits resulting from resilient infrastructure.

UN-Habitat will consult external stakeholders (IFAD, OXFAM, CARE and Health Poverty Action) to further ensure the involvement and empowerment of indigenous peoples and the equity of benefits

NPSE-ATTAPEU (and UN-Habitat) will support above.

26.0 INVOLUNTARY RESETTLEMENT

Throughout the full duration of the proposed project, no (sub-) project will be approved where there is the possibility, however small, that its implementation could result in forced eviction or involuntary resettlement.

No resettlement issues (voluntary or involuntary) are foreseen within the proposed project.

NPSE-ATTAPEU (and UN-Habitat) will support above.

27.0 PROTECTION OF NATURAL HABITATS

Prior to the implementation of the proposed project, UN-Habitat will complete a Vulnerability Assessment. This will identify, through techniques such as GIS and community mapping, particular areas of natural habitats that could have the potential to be damaged during construction. Identifying these areas within the environmental impact assessment will ensure that the potential direct and indirect impacts are investigated and avoided.

In addition UN-Habitat has partnered with the following stakeholders to ensure the protection of Natural Habitats:

- Ministry of Natural resources and Environment; Ministry of Labour and Social Welfare; Mekong River Commission and UNEP

NPSE-ATTAPEU (and UN-Habitat) will support above.

28.0 CLIMATE CHANGE

Climate Change is one of the four cross cutting pillars of UN-Habitat. As such the proposed project aligns with the Adaptation Fund Safeguard 11.

As detailed within the project proposal, Lao PDR will increasingly experience the exacerbated impacts of Climate Change and the poorest areas are predicted to be most severely affected. The proposed project will work to improve the resilience of infrastructure and increased the technical capacity of towns and villages in rural areas.

NPSE-ATTAPEU (and UN-Habitat) will support above.

29.0 POLLUTION PREVENTION AND RESOURCE EFFICIENCY

UN-Habitat is committed to working towards the implementation of the Sustainable Development Goals. As such UN-Habitat recognizes that all projects must ensure the sustainable consumption of resources and prevent mal-adaptive practice leading to the polluting of surrounding areas.

- No pollution or resource use issues are foreseen throughout the implementation of the proposed project as no construction, infrastructure, appliances or raw materials are involved

In addition the proposed project will work to ensure that the community is trained in how to use resources efficiently and prevent further pollution to surrounding areas.

NPSE-ATTAPEU (and UN-Habitat) will support above.

30.0 PUBLIC HEALTH

The proposed project has been developed in accordance with UN-Habitat's safeguard for Community health and safety.

- Throughout the scope of the proposed project no public health issues are foreseen.
- In addition, improved public health is a secondary impact area of this project

The environmental impact assessment will identify potential negative health impacts and will identify appropriate mitigation measures, which may, include, for example, filtration and treatment systems at the household level.

- The proposed project will support the INDC of Lao PDR to increase the resilience of public health infrastructure, and improve public health services for climate change adaptation.

NPSE-ATTAPEU (and UN-Habitat) will support above.

31.0 PHYSICAL AND CULTURAL HERITAGE

UN-Habitat recognizes the need to protect and promote the importance of physical and cultural heritage.

- Within the scope of the proposed project, no physical or cultural heritage impacts are foreseen.
 - The UN-Habitat VA and the environmental and social impact assessment will review this claim and input additional measures as necessary.
 - Information gathered from consultants and beneficiaries will further provide information to ensure that physical and cultural heritage sites are not negatively impacted by the proposed project.
- The project will be implemented by the local community, who are acknowledged as the best custodians of physical and cultural heritage sites within their locale.

NPSE-ATTAPEU (and UN-Habitat) will support above.

32.0 LANDS AND SOIL CONSERVATION

Soils are recognized as integral to ecosystems and of great importance for nutrient cycling and interconnected feedbacks. It is recognised that the proposed project could lead to the unintended consequence of negatively impacting wildlife that depends on watershed for nutrition.

- As such the environmental and social impact assessment will identify the important ecosystem considerations that need to be upheld throughout project development and implementation.
- The proposed project will provide sustainable access to resilient infrastructure and conserve the development of major watersheds. These measures are in alignment with national socio-economic, climate change and disaster management priorities.

NPSE-ATTAPEU (and UN-Habitat) will support above.

33.0 AUTHORITY TO MODIFY

No modification or change in this Agreement/Contract shall be valid and enforceable against UN-Habitat unless provided by an amendment to this Agreement/Contract signed by the Cooperating Entity/Contractor and a duly authorized official of UN-Habitat.

Annex B

PROJECT DOCUMENT AND WORK PLAN

1. Introduction

1.2 Goals and Objectives

2. Project

2.1 Background

2.2 Rationale

2.3 Objectives

2.4 Expected Outcomes

2.5 Project Scope

2.6 Proposed Activities

2.6.1 Participatory Planning and Assessment

2.6.2 Community Mobilization, Awareness Raising and Capacity Building

2.6.3 Provision of resilient infrastructure

2.6.4 Project Monitoring and Evaluation

2.7 Working Modality for Implementation

2.8 Roles of Institutions and Stakeholders

Institution	Responsibility
Project Management Unit with personnel seconded from existing local government structures.	<ul style="list-style-type: none">• Provide necessary guidance for successful implementation of the project;• Monitor the project activities; and• Resolve any problems during the project period.
NPSE-ATTAPEU	<ul style="list-style-type: none">• Provide leadership and institutional support with full responsibility for project implementation;• Coordinate with local Government, beneficiary communities and UN-Habitat;• Coordinate community awareness sessions and promotion for adequate sanitation;• Provide communities with artisan's training on the construction of sanitation facilities;• Document and disseminate information;• Allocate in-kind and/or cash contribution committed for the project including necessary human resources;• Present the outcomes of project in national and international forums;

	<ul style="list-style-type: none"> and • Perform monitoring and evaluation of the project; and • Prepare all project reports as required.
District Authority	<ul style="list-style-type: none"> • Mobilize and motivate community to participate • Allocate in-kind and/or cash contribution committed for the project; and • Coordinate with other government agencies.
UN-HABITAT	<ul style="list-style-type: none"> • Advise, as appropriate, NPSE-ATTAPEU in setting up the project work plan and implementation modalities; • Provide technical and financial support; • Provide funds as agreed with NPSE-ATTAPEU; • Network and coordinate with different stakeholders; • Disseminate project activities at national and international level; and • Review and monitor the activities of the project including design and procurement.

2.9 List of Sample Activities and Outputs

The following activities are to be conducted to achieve the above goal and related outputs.

Activities	Outputs	Inputs
A. Preparatory activities		
1. Stakeholders' Inception Workshop	Output A1. Report on Stakeholder's Inception Workshop (In Lao with a substantive summary in English)	NPSE-ATTAPEU, local authorities, communities and government agencies.
2. Rapid assessment of small scale adaptation infrastructures in XXX selected villages	Output A2. Report on Rapid assessment of water infrastructures in the XXX villages (In Lao with a substantive summary in English)	NPSE-ATTAPEU (with local authorities, UN-HABITAT)
3. Conduct Engineering survey and Detailed Design including Bill of Quantity of Water infrastructure	Output A3. Report on an Engineering survey and Detailed Design including Bill of Quantity of Water infrastructure (In Lao with a substantive summary in English)	NPSE-ATTAPEU (with local authorities, UN-HABITAT)
B. Community-engagement		
1. Community Action Team (CAT) established	Output B1. Report on Community Action Teams in XXX selected villages (In Lao with a substantive summary in English)	NPSE-ATTAPEU (with local authorities, UN-HABITAT)
C. Build small scale adaptation infrastructure XXX selected villages (where feasible)		
1. Establish (where feasible) small-scale Water infrastructure in XXX selected villages	Output C1. Report on establish (where feasible) small-scale Water infrastructure in XXX selected villages (In Lao with a substantive summary in English)	NPSE-ATTAPEU (with local authorities, UN-HABITAT)
D. Project Monitoring and Evaluation		
1. Project progress report to indicate the status of implementation	Output D1. Periodic Project progress report prepared (in Lao with a substantive summary in English)	NPSE- ATTAPEU with communities and local authorities (in consultation with UN-HABITAT)
2. Stakeholders' Project Completion Meeting to discuss and disseminate main achievements and lessons learned	Output D2. Report on Stakeholders' Project Completion Meeting (in Lao with a substantive summary in English)	NPSE- ATTAPEU with communities and local authorities (in consultation with UN-HABITAT)

2.10 Timeframe and Implementation Schedule

The activities in 2.9 shall be undertaken over a period of twelve (12) months from the date of signing of the agreement. An implementation schedule is presented below:

1. ACTIVITIES	Months (YYYY)												2. OUTPUT
	YYYY												
	1	2	3	4	5	6	7	8	9	10	11	12	
A. Participatory Planning and Assessments													
1. Stakeholders' Inception Workshop	█												Output A1. Report on Stakeholder's Inception Workshop (In Lao with a substantive summary in English) 2.
2. Rapid assessment of small scale adaptation infrastructures in the XXX selected villages		█											Output A2. Report on Rapid assessment of water infrastructures in the XXX villages (In Lao with a substantive summary in English)
3. Conduct Engineering survey and Detailed Design including Bill of Quantity of Water infrastructure			█										Output A3. Report on an Engineering survey and Detailed Design including Bill of Quantity of Water infrastructure (In Lao with a substantive summary in English)
B. Community Engagement													
1. Community Action Team (CAT) established			█										Output B1. Report on Community Action Teams in XXX selected villages (In Lao with a substantive summary in English)
C. Build small scale adaptation XXX selected villages (where feasible)													
1. Establish (where feasible) small-scale Water infrastructure in XXX selected villages				█	█	█	█	█	█	█	█	█	Output C1. Report on establish (where feasible) small-scale Water infrastructure in XXX selected villages (In Lao with a substantive summary in English)
D. Project Monitoring and Evaluation													
1. Project progress report to indicate the status of implementation			█			█			█			█	Output D1. Periodic Project progress report prepared (in Lao with a substantive summary in English)

1. ACTIVITIES	Months (YYYY)												2. OUTPUT	
	YYYY													
	1	2	3	4	5	6	7	8	9	10	11	12		
2. Stakeholders' Project Completion Meeting to discuss and disseminate main achievements and lessons learned														Output D2. Report on Stakeholders' Project Completion Meeting (in Lao with a substantive summary in English)

Annex C

BUDGET

(a) Project Budget: USD 233,500

ACTIVITIES	UN-Habitat	NPSE- ATTAPEU	Community	Sub-total
		In-kind	In-kind	
A. Participatory Planning and Assessments				
1. Stakeholders' Inception Workshop				
2. Rapid assessment of water infrastructures in the XXX selected villages				
3. Conduct Engineering survey and Detailed Design including Bill of Quantity of Water infrastructure				
Sub-total				
B. Community Engagement				
1. Community Action Team (CAT) established				
Sub-total				
C. Build small scale adaptation infrastructure XXX selected villages (where feasible)				
1. Establish (where feasible) small-scale Water infrastructure in XXX selected villages				
Sub-total				
D. Project Monitoring and Evaluation				
3. Project progress report to indicate the status of implementation				
4. Stakeholders' Project Completion Meeting to discuss and disseminate main achievements and lessons learned				
Sub-total				
Grand Total				

(b) Payment Schedule

Payment schedule	Amount (USD)	Percent (%) Indicative	Activities/outputs + Progress Reports	Completion date	Anticipated payment
First Payment		40	Upon signing of contract and a payment request		
Second payment		10	Upon submission and acceptance of the following outputs: <ul style="list-style-type: none">• Output A1. Report on Stakeholder's Inception Workshop (In Lao with a substantive summary in English);• Output D1. Project progress reports prepared (in Lao with a substantive summary in English)• A financial statement showing the use of funds so far provided, as certified by the competent financial authority of NPSE-ATTAPEU and a payment request		
Third payment		40	Upon submission and acceptance of the following outputs: <ul style="list-style-type: none">• Output A2. Report on Rapid assessment of small scale adaptation infrastructures in XXX selected villages (In Lao with a substantive summary in English);• Output A3. Report on Conduct Engineering survey and Detailed Design including Bill of Quantity of Water infrastructure (In Lao with a substantive summary in English);• Output B1. Report on Community Action Teams in XXX selected villages (In Lao with a substantive summary in English)• Output C1. Report on Establish (where feasible) small-scale adaptation infrastructure (In Lao with a substantive summary in English);• Output D1. Project progress reports prepared (in Lao with a substantive summary in English)and• A financial statement showing the use of funds so far provided, as certified by the competent financial authority of NPSE-ATTAPEU and a payment request		
Fourth and Final payment		10	Upon submission and acceptance of the following outputs: <ul style="list-style-type: none">• Output D1. Project completion report prepared (in Lao with a substantive summary in English);• Output D2. Report on Stakeholders' Project Completion Meeting (in Lao with a substantive summary in English), and• An financial report audited by an independent accounting firm showing the use of funds; and a payment request		
TOTAL	194,000	100	End of Cooperation Agreement		

Annex 8: Environmental and Social Management Plan (ESMP)

Environmental and social risks management framework: explanation of method and process of dealing with potential environmental and social risks.

The method to identify, assess, manage and mitigate the environmental and social risks of (sub)projects and related activities is based on a combination of UN-Habitat’s draft Handbook on Environmental and Social Safeguards⁴⁹, the AF Environmental and Social Policy and LAO PDR’s “Instructions on Initial Environmental Examination (IEE) of the investment projects and activities.”

The method/framework deals with the 15 Adaptation Fund safeguards in combination with 4 cross cutting markers and the 7 safeguard areas of UN-Habitat. The matrix below demonstrates where these safeguards align and where they are considered separately.

Table 25: Linking adaptation fund safeguards to UN-Habitat safeguard areas.

UN-Habitat Safeguard Areas/cross cutting markers		Adaptation Fund Safeguard Areas
<input type="checkbox"/> Youth <input type="checkbox"/> Human Rights <input type="checkbox"/> Climate Change and Environment <input type="checkbox"/> Gender		<input type="checkbox"/> Compliance with the Law <input type="checkbox"/> Human Rights <input type="checkbox"/> Climate Change <input type="checkbox"/> Gender Equity and Women’s Empowerment
1	Promoting better labour and working conditions	
2	Enhancing community health, safety and security	
3	Safeguarding land, housing, resettlement and rights	<ul style="list-style-type: none"> ▪ Access and Equity
4	Reducing the climate and environmental footprint	
5	Conserving biodiversity	<ul style="list-style-type: none"> ▪ Protection of Natural Habitats ▪ Lands and Soil Conservation
6	Protection for Indigenous people	<ul style="list-style-type: none"> ▪ Marginalized and Vulnerable groups
7	Protecting and promoting cultural heritage	

During the project proposal phase, these safeguards have been used to screen risks of project activities under components 1 and 2 of the project. During the project, these safeguards and Lao PDR procedures for IEE will be used to identify, assess, manage and mitigate social and environmental risks of USPs (which are site-specific, physical interventions).

Identified risks (if any) will be used as criteria (together with outcomes of climate change vulnerability and disaster risk assessments) to select, with communities, small-scale infrastructure sub-projects for construction. If selected/to be constructed sub-projects have remaining risks, they will be managed and mitigated. The flow chart below displays how to deal with risk on sub-project level.

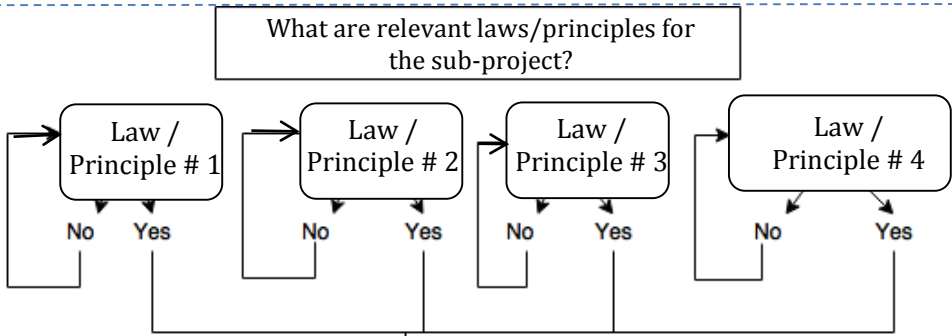
The flowchart below shows how environmental and social risks of (sub-)projects can be identified/assessed, managed and mitigated.

⁴⁹ Currently being tested before publication

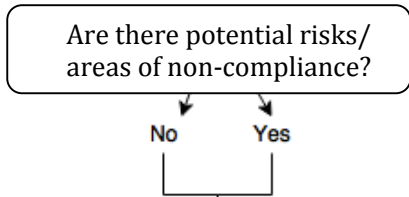
Process of identifying/assessing, managing and mitigating environmental and social risks of (sub-) project

SAFEGUARD AREA

EXISTING LAWS AND PRINCIPLES TO WHICH LAO PDR, UN-HABITAT AND AF ARE CONTRACTUALLY OBLIGED AND ALREADY ESTABLISHED ACTIONS THAT ARE TO BE IMPLEMENTED.

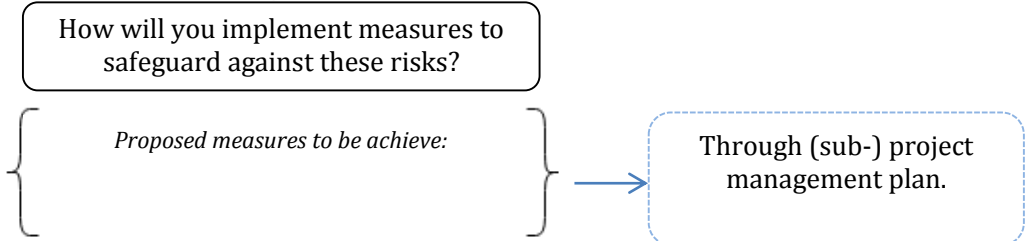


POTENTIAL OF NON-COMPLIANCE TO SPECIFIED LAWS/ PRINCIPLES, OR ACTIONS TO BE TAKEN

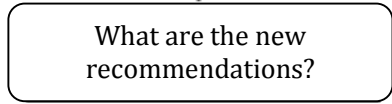


Assessment includes using the Environmental and Social Safeguard non-compliance risk screening checklist and Lao PDR IEE method for (sub-) project (after determining location, scale and risks based on outcomes Vulnerability Assessments).

MEASURES THAT MUST BE ACHIEVED TO ENSURE SAFEGUARD FULFILLMENT



SPECIFIC ACTIONS THAT NEED TO BE COMPLETED AT THE PROJECT LEVEL



- Action # 1
- Action # 2
- Action # 3

HAS THE ACTION BEEN COMPLETED?

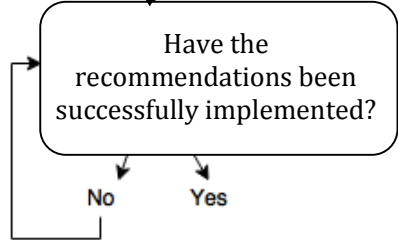


Table 26: outcome of the initial environmental and social assessment

1. Safeguard Area	2. National Laws, UN Rules, principles and procedures to be upheld	3. Potential risks/areas of non-compliance	4. Impact & probability (1-5) and Significance (low, medium, large)	5. Measure to ensure safeguard fulfillment	6. Recommended action	Action completed?	
UN-HABITAT PILLARS	Youth	<ul style="list-style-type: none"> ▪ UN-Habitat Youth Advisory Board 	Failure to engage youth in decision making and/ or of a lack of equity to project benefits. I = 1 P = 1 Low	Ensure Youth have equal access to the benefits and outcomes of the project.	Involvement of youth within stakeholder participation meetings through the Lao Youth Union	<input type="checkbox"/>	
				Ensure equal participation of youth throughout project design and implementation	Channels to be available to report instances of discrimination in a safe and anonymous manner.	<input type="checkbox"/>	
	Human Rights	<ul style="list-style-type: none"> ▪ Human Rights Based Approach (HRBA) 	Failure to understand situation of and lack of proactively addressing the rights of the rights holders and responsibility of the duty bearers. Rights abuses, including against indigenous people I = 3 P = 1 Low	Ensure HRBA through use of the human rights marker	Details of human rights markers to be included in MoU and AoC with government	<input type="checkbox"/>	
					Refresher training to be available and completed by all UN-Habitat staff every 2 years.	<input type="checkbox"/>	
	Climate Change	<ul style="list-style-type: none"> ▪ UN-Habitat Vulnerability Assessment 	The project causes maladaptation either in the	I = 2 P = 1 Low	Ensure VA is completed locally accepted/ endorsed and clear linkages to the project	VA to be completed in close cooperation with communities prior to project implementation ⁵⁰	<input type="checkbox"/>

⁵⁰ Lao PDR does not have a standard procedure for conducting vulnerability assessments. As such the UN-Habitat VA will be implemented in compliance with processes and procedures described in the UN-Habitat 'Planning for Climate Change' toolkit.

	<ul style="list-style-type: none"> Planning for Climate Change Guidelines 	project sites or upstream or downstream			plan produced.	Ensure project is conducted in accordance with Lao PDR climate change guidelines	Climate Change Guidelines to be read and understood by Project Manager prior to implementation.	<input type="checkbox"/>
Gender Equity and Women's Empowerment	<ul style="list-style-type: none"> UN Women Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) ILO Conventions No. 100, 111, 156 and 183 	Failure to engage women in decision-making. Women not enjoying equal access to resulting service	I = 2 P = 1	Low	Ensure the continued adherence to the specifications of CEDAW and ILO Conventions.	Ensure gender equity throughout project design and implementation.	Quota system for female engagement and engagement of Lao's women union (in every community) and Lao National commission on status of women (in every ministry) Equitable benefits of project outcome for men and women Channels to be available to report instances of discrimination in a safe and anonymous manner.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	Promoting better labour and working conditions	Community contracts that are not implemented according to ILO standards	I = 1 P = 1	Low	Ensure transparency and accountability throughout project cycle.	Ensure the project is accordance with ILO Conventions.	All documents & minutes produced during the project cycle to be available online. Safeguard Officer to visit the project site and ensure ILO Conventions are being upheld.	<input type="checkbox"/> <input type="checkbox"/>
					Ensure that no underage staff or children are employed in the project.	MoUs, AoC and Community contracts to include standard clauses requiring the compliance with ILO conventions.	<input type="checkbox"/>	
Compliance with Domestic & International Law	<ul style="list-style-type: none"> Lao PDR Initial Environmental Examination (IEE) and Environmental and Social Impact Assessment (ESIA) UN-Host Country Agreements 	Risk of non-compliance with Lao PDR IEE procedure	I = 1 P = 2	Low	Ensure IEE is completed following Lao PDR procedures	Ensure clear communication between UN-Habitat project staff and the Lao PDR	Project Manager to work in cooperation with the Department of ESIA of MoNRE. Written details of the proposed project to be shared with the host country.	<input type="checkbox"/> <input type="checkbox"/>

2	Enhancing community health, safety and security	<ul style="list-style-type: none"> ▪ Lao PDR Urban Planning Law ▪ Lao PDR Construction Law and building codes ▪ Lao PDR Water and Resource Law and water supply law ▪ MDG/ SDG technical standards for water supply and sanitation 	<p>Communities may use some machinery and/or not have protective equipment</p> <p>I = 3 P = 1</p> <p>Low</p>	government.		
				Ensure each person associated with the project is trained on domestic and international laws	Details of domestic and international laws to be included in contract for all project staff.	
				Ensure project complies with the SDG technical standards	Provide training for all project staff.	<input type="checkbox"/>
					Project Manager will have read and understood SDG technical standards prior to project implementation	
	Enhancing community health, safety and security	<ul style="list-style-type: none"> ▪ International Civil Service Commission (ICSC) ▪ International Health and Safety Standards ▪ Slum & Housing upgrading projects ▪ The Lao National Unexploded Ordnance Programme 	<p>Communities may use some machinery and/or not have protective equipment</p> <p>I = 3 P = 1</p> <p>Low</p>	Ensure that ICSC international health and safety standards are clearly accessible and understood.	Clearly visible signs detailing health and safety standards to be located at projects sites.	<input type="checkbox"/>
					Project will provide all necessary safety equipment.	<input type="checkbox"/>
				Ensure adherence to relevant UN-Habitat policy and programmes ⁵¹ .	UN-Habitat Slum & Housing upgrading specialist to provide advice and support to project design when necessary.	<input type="checkbox"/>
				Ensure Projects are not implemented in areas that have not been demined in accordance with the Lao National Unexploded Ordnance Programmes	Prior to project implementation, high resolution unexploded ordnance maps will be cross-referenced with proposed project locations.	<input type="checkbox"/>
	Project will support de-mining where unexploded ordnance is detected.	<input type="checkbox"/>				

⁵¹ UN-Habitat has a long and well established Housing and Slum Upgrading Branch which develops new policies and strategies to ensure the adequate provision of housing for all. The following are four such programmes, initiatives and networks; (1) PSUP - Participatory Slum Upgrading (2) GHS - Global Housing Strategy (3) GNSH - Global Network for Sustainable Housing (4) UNHRP - United Nations Housing Rights Programme.

	<ul style="list-style-type: none"> ▪ Building Back Better Principles Guideline for Shelter and Sanitation 		Ensure Compliance with the build back better principles	Project to be implemented in accordance with build back better principles.	<input type="checkbox"/>		
	<ul style="list-style-type: none"> ▪ Lao PDR Building Codes and Building Control 		Ensure adherence to Lao PDR Building Codes	Project Manager to have a clear working knowledge of Lao PDR Building Codes.	<input type="checkbox"/>		
	<ul style="list-style-type: none"> ▪ Lao PDR Construction Law 		Ensure project develops infrastructure in accordance with the Lao PDR Construction Law.	All project related staff to be provided with details of Lao PDR Construction Law. Project infrastructure to be monitored throughout construction, to ensure standards are met.	<input type="checkbox"/> <input type="checkbox"/>		
	<ul style="list-style-type: none"> ▪ Lao PDR Hygiene Law 		Ensure compliance with the Lao PDR Hygiene Law in all aspects of the project cycle	Construction of sanitation facilities throughout the project will be checked against the Lao PDR Hygiene Law.	<input type="checkbox"/>		
3	Safeguarding land, housing, resettlement and rights	Project actions lead to unintended resettlement consequences	I = 4 P= 1 Low	<ul style="list-style-type: none"> ▪ Right to Adequate Housing 	Ensure all project affected persons have free, prior and informed consent relating to project outcomes.	Accountability in administration with online access to reports.	<input type="checkbox"/>
				<ul style="list-style-type: none"> ▪ Free, Prior and Informed Consent (FPIC) 	Ensure that no (sub-) projects are undertaken that involve forced eviction.	Principles of FPIC to be adopted throughout project cycle with channels to review project plan.	<input type="checkbox"/>
				<ul style="list-style-type: none"> ▪ Participatory Land Use Planning (PLUP) 	Ensure Participatory Land Use Planning (PLUP) is within project cycle.	No (sub-) project will be approved where there is the possibility, however small, of forced eviction.	<input type="checkbox"/>
				<ul style="list-style-type: none"> ▪ Lao PDR '3-build' or 'Samsang' process of decentralization 	Ensure Lao PDR 'Samsang' process of decentralization is included in project design	Project to operate in accordance with FPIC to ensure PLUP principles are established in the project.	<input type="checkbox"/>
				<ul style="list-style-type: none"> ▪ National Standard on Quality management for drinking water and household water supply 		The MoUs and AoCs will detail the government's role in planning, developing and implementing the development of project	<input type="checkbox"/>
		<ul style="list-style-type: none"> ▪ SDG technical 					

		standards for water supply				infrastructure.	
		<ul style="list-style-type: none"> See also Human Rights crosscutting area; HRBA and Compliance with the law: Lao PDR Urban Planning Law 				<p>Ensure that project water supply is in accordance with the Laos National Standard on Quality management for drinking water & household supply.</p> <p>Project Manager will be responsible for project water supply is in accordance with SDG technical standards.</p>	<p>National standards to be incorporated into proposed water supply outlets during the project design.</p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p>
	Access and Equity	<ul style="list-style-type: none"> UN-Habitat Project Template 	Failure to engage indigenous people and people with vulnerabilities in decision-making. Indigenous people not enjoying equal access to resulting service	I = 3 P = 2	Low	<p>Ensure continued use of UN-Habitat Project Template and equitable benefits of the project.</p> <p>Ensure project does not exacerbate existing inequalities.</p>	<p>Project will be submitted to UN-Habitat's Programme Assurance Group (PAG) for quality assurance and review. PAG will offer guidance on ensuring equitable access.</p> <p>Project Proposal will detail how project outcomes will produce equal benefits and Access and equity questions included as part of the VA</p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p>
		<ul style="list-style-type: none"> Climate Change Marker Project Advisory Group (PAG) UN-Habitat Vulnerability Assessment Planning for Climate Change Guidelines 	Mal-adaptation (as described above)	I = 2 P = 1	Low	<p>Include impact monitoring through implementation of the project</p> <p>Ensure continued support of PAG throughout the project cycle.</p>	<p>Project Manager to have clear understanding of the Climate Change Marker.</p> <p>Review and update the VA at the mid-point of the project</p> <p>Use UN-Habitat evaluation policy</p> <p>Ensure key documents are available online</p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p>
5	Conserving	<ul style="list-style-type: none"> UN-Habitat Vulnerability 	Impacts of local,	I = 1	Low	Ensure VA is completed	VA assessment to be <input type="checkbox"/>

	biodiversity	Assessment	upstream and downstream biodiversity as a result of project activities	P= 1		to the highest standard.	completed prior to project implementation.	
		<ul style="list-style-type: none"> ▪ Convention on Biological Diversity ▪ TEEB Guidance Manual 				Ensure adherence to the Convention on Biological Diversity.	Project Managers to have read and understood the Convention prior to project implementation.	<input type="checkbox"/>
						Ensure all project outcomes respect the importance of ecosystems and ecosystem services.	Ecosystem services included as part of the VA	<input type="checkbox"/>
							Provide information on ecosystem services within training to project staff ⁵² .	<input type="checkbox"/>
	Protection of Natural Habitats	<ul style="list-style-type: none"> ▪ UN-Habitat Vulnerability Assessment ▪ Convention Concerning the Protection of World Cultural and Natural Heritage (1972) ▪ IUCN Red List Criteria 	As above	I = 1 P= 1	Low	Ensure VA is completed to the highest standard.	VA assessment to include local/community map of natural habitats.	<input type="checkbox"/>
						Ensure Compliance to Convention.	Provide clear information of Heritage sites to Project Managers.	<input type="checkbox"/>
Lands and Soil Conservation	<ul style="list-style-type: none"> ▪ UN-Habitat Vulnerability Assessment ▪ IUCN Environmental Policy and Law Paper No. 81 	As above	I = 1 P= 1	Low	Ensure conservation of natural habitats and species included within the IUCN Red List.	Provide Project Managers with links to IUCN Red List.	<input type="checkbox"/>	
						Utilize resources produced by IUCN ⁵³ for applying the Red List to project level.	<input type="checkbox"/>	
6	Protection for Indigenous people	<ul style="list-style-type: none"> ▪ UN-Habitat Vulnerability Assessment ▪ Article 27 of the International Covenant on Civil and Political Rights (1966) ▪ UNDRIP Declaration on 	Example: Failure to engage indigenous people in decision making. Indigenous people not enjoying equal access to resulting service	I = 3 P= 1	Low	Ensure VA is completed to the highest standard.	VA assessment to be completed prior to project implementation and to include vulnerabilities of indigenous people	<input type="checkbox"/>
						Ensure that the details of International Covenant on Civil and Political Rights (1966) are respected and upheld.	Include measures to protect indigenous people in project plan.	<input type="checkbox"/>
							Background research to be	<input type="checkbox"/>

⁵² In accordance with the TEEB Guidance Manual: http://www.teebweb.org/media/2013/10/TEEB_GuidanceManual_2013_1.0.pdf

⁵³ IUCN (2001) IUCN Red List Categories and Criteria, Version 3.1 Second edition, see page 8.

		the Rights of Indigenous People	(see access and equity)			completed prior to initial project design ⁵⁴ .	
		<ul style="list-style-type: none"> ▪ ILO Convention 169 ▪ Free, Prior and Informed Consent (FPIC) 				Ensure that the components of the UNDRIP Declaration and ILO Convention 169 on Indigenous tribes and people, are respected and upheld.	Project Managers to have read and understood UNDRIP Declaration and ILO Convention prior to project implementation. <input type="checkbox"/>
						Provide summary of UNDRIP Declaration within ESS Handbook.	<input type="checkbox"/>
						Ensure FPIC is granted to indigenous communities affected by project implementation.	Follow a pre-defined FPIC procedure <input type="checkbox"/>
						Allow 1 month for feedback to be gathered from consent letter.	<input type="checkbox"/>
						Ensure VA is completed to the highest standard and clear linkages to the project plan produced.	VA will focus on the particular needs of vulnerable and marginalized groups. <input type="checkbox"/>
Marginalized and Vulnerable groups		<ul style="list-style-type: none"> ▪ UN-Habitat Vulnerability Assessment ▪ Free, Prior and Informed Consent 	See access and equity	I = 3 P = 1	Low	Ensure all project affected persons have free, prior and informed consent relating to project outcomes	Accountability in administration with online access to reports. <input type="checkbox"/>
						Principles of FPIC to be upheld throughout project cycle with clear channels to review project plan.	<input type="checkbox"/>
						Ensure VA is completed to the highest standard and clear linkages to the project plan produced.	VA to include local/ community map of tangible and intangible heritage areas. <input type="checkbox"/>
7	Protecting and promoting cultural heritage	<ul style="list-style-type: none"> ▪ UN-Habitat Vulnerability Assessment ▪ UNESCO World Heritage List 	No damage to any heritage, including 'intangible heritage'	I = 1 P = 1	Low	Ensure avoidance of project site location on or near a UNESCO World Heritage Site or other locally important heritage sites	Map resources of heritage sites to be included in UN-Habitat ESS Handbook. <input type="checkbox"/>

⁵⁴ This background research is to be conducted to gain a full understanding of the lifestyle, and important cultural traditions of indigenous peoples.

2. Mitigation measures for institutional processes

Activities under Component 1 (Institutional level strengthening to reduce vulnerability in human settlements) and Component 2 (Building capacity at the human settlement and community level capacities for climate resilience) both include 'soft' activities. According to the Adaptation Fund's Environmental and Social Policy: "those projects with no adverse environmental or social impacts should be categorized as Category C"⁵⁵. No environmental and social impacts, whether direct, indirect, transboundary or cumulative are envisaged to arrive as a result of any of the soft activities under Components 1 and 2. Despite this, however, measures will be taken to ensure that no environmental or social impacts can occur. These include:

- Staff and partners will be trained to identify, assess, manage and mitigate environmental and social risks.
- A social safeguards specialist will be hired. The specialist will work closely with staff and partners, including especially the M & E specialist.
- MoUs and AoC will include agreements on how to deal with safeguard compliance of project activities to be implemented. An example of such an AoC is provided in annex 7.

3. Mitigation measures for project activities

A detailed environmental and social assessment will be conducted as part of the comprehensive climate change vulnerability and disaster risk assessments (activity/output 1.2) in the target provinces, districts and settlements/communities. The reasoning for this is that the assessment will be much more comprehensive/detailed, including the involvement of vulnerable groups in all target settlements/communities, as could be done in the proposal development phase. Besides that, a detailed environmental and social assessment is only required for the activities under component 3 (Community level adaptation investments) as the to-be-identified small-scale infrastructure investment projects (Unidentified Sub-Projects) potentially fall in the risk category B. How the environmental and social risks of these sub-projects will be identified/assessed, managed and mitigated will be discussed in the following section.

This approach is in line with the Adaptation Fund's Environmental and Social Policy: "in some Category B projects where the proposed activities requiring an environmental and social assessment, represent a minor part of the project, and when the assessment and/or management plan cannot be completed in time or where mitigation measures extend into project implementation, the Board can approve the project subject to assurances included in the agreement signed between the Board and the implementing entity that any environmental and social risks will be adequately and timely addressed through a management plan or changes in project design."⁵⁶

The result of this approach (a detailed environmental and social assessment being part of the comprehensive climate change vulnerability and disaster risk assessments) will be the production of detailed information on community level climate change vulnerabilities and disaster risks (including community maps) in combination with detailed information on:

⁵⁵ Adaptation Fund Environmental and Social Policy (March 2016), paragraph 8, Page 3

⁵⁶ Adaptation Fund Environmental and Social Policy (March 2016), paragraph 9, Page 3

- ❑ Cultural/ethnic, gender, elderly, disabled people, youth specific needs and user practices regarding different infrastructure types/services (e.g. water supply/collection, irrigation, sanitation)
- ❑ Cultural/ethnic, gender, elderly, disabled people, youth specific needs and user practices regarding health and hygiene (e.g. related to dengue, malaria, water and sanitation).
- ❑ Other information regarding safeguards at community level (e.g. mapping of biodiversity, natural habitats, Lands and Soil, cultural heritage and human rights situation for certain ethnic groups).

Based on this information (i.e. community and climate change adaptation criteria) and the assessment of environmental and social risks per sub-project (as discussed in the next section) communities will select the most appropriate sub-projects for construction.

Risks assessment tool for Unidentified Sub-Projects: to identify, assess, manage and mitigate potential environmental and social risks of small-scale infrastructure investment projects and related activities.

The activities under Component 3 are 'hard' activities, and as such some activities have the potential, without an environmental and social safeguarding system, to create negative environmental and social impacts. At the project proposal phase, environmental and social risks under component 3 cannot be comprehensively identified because the project includes unidentified sub- projects (USPs). As a result, this section explains how to identify/assess, manage and mitigate environmental and social risks when an USP is identified.

Scope of sub-projects

UN-Habitat will ensure that potential social and environmental risks, impacts and opportunities of supported sub-projects are systematically identified and assessed in an integrated manner. The type and scale of assessment and the agreed management and mitigation measures will be proportionate to the level of social and environmental risk.

In order to avoid large environmental and social impacts, sub-projects must fall into the category of medium (B) - or low (C) risk projects.

- A1: High risk:** Activities with potential significant adverse environmental and/or social risks and/or impacts that are diverse, irreversible, or unprecedented.
- B2: Medium risk:** Activities with potential mild adverse environmental and/or social risks and/or impacts that are few in number, generally site-specific, largely reversible, and readily addressed through mitigation measures.
- C3: Low risk:** Activities with minimal or no adverse environmental and/or social risks and/or impacts.

The sub-projects will fall into the category of medium (B) - or low (C) risk projects because component 3 will include sub-projects that are numerous, but small scale and very localized, and managed by communities where possible, who have a stake in avoiding environmental and social impacts. This means that the potential for direct impacts is small and localized, that there can be few indirect impacts, and that transboundary impacts are highly unlikely.

To ensure sub-projects fall into the category of medium (B) - or low (C) risk projects, the scope of sub-projects has been narrowed by:

- Type of measure/infrastructure (including resilient water supply, drainage, sanitation, health, etc. infrastructure);
- Location (low risk)
- Scale (square meters and funding ceiling)

The outcomes of climate change vulnerability and disaster risk assessments (conducted before sub-project identification) will provide valuable data regarding risks related to disaster and vulnerabilities and sensitivities of people, natural habitats, lands/locations, etc. The scale of sub-project will be limited so that they will not fall in Lao PDR defined risk categories for which Environmental Impact Assessments are required⁵⁷ – thus, sub-projects will be screened for social and environmental risks according to Lao PDR standards:

Sub-projects that are anticipated to cause insignificant or minimal environmental and social impacts are required to conduct an Initial Environmental Examination (EE). These EE's determine if an Environmental and Social Impact assessment (ESIA) is required.⁵⁸ Following Lao PDR procedures, UN-Habitat will submit to-be-reviewed project proposals to the ministry.

In some cases, applicability of specific requirements will need to be determined through additional scoping, assessment, or management review.

Sub-project assessment and management principles

The UN-Habitat Project Manager will ensure that assessments adequately include and/or reflect the following:

- ✓ Address impacts on physical, biological, socioeconomic, and cultural resources, including direct, indirect, cumulative, and induced impacts in the sub-project's area of influence, including associated facilities. Utilize strategic, sectoral or regional environmental assessment where appropriate.
- ✓ Assess adequacy of the applicable legal and institutional framework, including obligations under Applicable Law and confirm that the sub-project would not be supported if it contravenes (inter) national obligations.
- ✓ Assess feasible investment, technical, and siting alternatives, including the “no action” alternative, as well as potential impacts, feasibility of mitigating these impacts, their capital and recurrent costs, their suitability under local conditions, and the institutional, training and monitoring requirements associated with them.
- ✓ Enhance positive impacts and avoid, minimize, and/or mitigate adverse impacts through environmental and social planning and management. Develop a management plan per

⁵⁷ Requirements for conducting an IEE or EIA can be found here:

<http://rightslinklao.org/wp-content/uploads/downloads/2014/12/Environmental-Impact-Assessment-Guideline.pdf>

⁵⁸ According to Ministry of Natural Resources and the Environment Ministerial Instruction on Environment and Social Impact Assessment of the Investment Projects and Activities (No.8030/MONRE)

According to the above Ministerial Instruction, Group 2 is defined as Investment Projects and Activities that are anticipated to cause the significant or major environmental and social impacts; therefore, generally required to conduct an Environmental and Social Impact Assessment.

USP that includes the proposed measures for mitigation, monitoring, institutional capacity development and training (if required), an implementation schedule (including maintenance), and cost estimates.

- ✓ Ensure compliance with international standards if an ESIA need to be prepared and conducted through independent monitoring and where appropriate, use independent advisory panels during preparation and implementation of sub-projects that contain risks or that involve serious and multi-dimensional social and/or environmental concerns.
- ✓ Examine whether particular individuals and groups may be differentially or disproportionately affected by the sub-project potential adverse impacts because of their disadvantaged or marginalized status, due to such factors as race, ethnicity, gender, age, language, disability, sexual orientation, religion, political or other opinion, national or social or geographical origin, property, birth or other status including as an indigenous person or as a member of a minority. Where such individuals or groups are identified (through the vulnerability assessment), recommend targeted and differentiated measures to ensure that the adverse impacts do not fall disproportionately on them.
- ✓ Ensure that the EE/ESIA is undertaken as early as possible, noting that in some cases, an EE/ESIA will be undertaken as a component of the sub-project. In no case sub-projects that may cause adverse impacts be carried out until completion of the EE/ESIA.
- ✓ Ensure that the EE/ESIA process and development of sub-project contracts and management plans involves early, iterative and meaningful stakeholder engagement and participation, predicated on timely disclosure of relevant information.
- ✓ All proposed sub-projects with environmental and social risks will be assessed and managed with the purpose to identify potential application of requirements of the Overarching Environmental and Social Policy (ESP) and Principles.

SUB-PROJECT ASSESSMENT SHEET

Steps:

1. Please fill out table 1 and provide the specific details for each sub project.
2. Complete the checklist (table 2), to assess the potential risk areas.
3. Identify risks mitigation measures by filling table 3
4. Classify the risk of the sub-project in table 4
5. Determine relevant safeguard areas for the sub-project in table 5
6. Sign of the project when above is completed

TABLE 1: SUB-PROJECT INFORMATION

1. Project title	
2. Project number	
3. Project location (village, districts)	

TABLE 2: CHECKLIST OF POTENTIAL RISK AREAS OF NON-COMPLIANCE WITHIN THE ADAPTATION FUND'S ENVIRONMENTAL AND SOCIAL SAFEGUARDS

**ANSWER
(Y/N)**

Adaptation Fund Safeguard Area 1: Compliance with the Law

- | | |
|---|-----|
| 1. Is there a risk that the project will fail to comply with national laws in Lao PDR, UN rules, principles and procedures? | Yes |
| 2. Could the proposed project lead to a failure of trust between UN-Habitat and the Lao PDR Government? | No |

Adaptation Fund Safeguard Area 2: Human Rights

- | | |
|---|-----|
| 1. Is there a risk that the proposed project will negatively impact the human rights of the affected population? | No |
| 2. Could the implementation of the proposed project lead to conflict or violence within the affected community and surrounding regions? | No |
| 3. Is there a risk that people can be ignored, excluded or discriminated against based on their age, gender, ethnicity, sexual orientation? | Yes |
| 4. During initial engagement with the local population, were objections raised objections or concerns relating to human rights issues? | No |
| 5. Is there a risk that community members and marginalized groups do not have a channel through which to raise an issue of grievance? | No |

Adaptation Fund Safeguard Area 3: Climate Change

- | | |
|---|-----|
| 1. Is there a risk that the proposed project will lead to increased GHG emissions? | No |
| 2. Could the proposed project lead to maladaptation either in the in the project sites or upstream or downstream | Yes |
| 3. Is there a risk that the outcomes of the proposed project will be highly susceptible to impacts of climate change into the future? | No |

Adaptation Fund Safeguard Area 4: Gender Equity and Women's Empowerment

- | | |
|---|--|
| 1. Is there a risk that the proposed project will exacerbate any existing gender imbalance? | |
| 2. Would the proposed project lead to an increase in discrimination towards women and girls especially during participatory processes of project design and implementation? | |

- | | |
|---|--|
| 3. Is there a risk that the proposed project will lead to decreased access to water related infrastructure? | |
| 4. Is there a risk that the project will fail to engage women in decision making regarding project design? | |

Adaptation Fund Safeguard Area 5: Promoting better labour and working conditions

- | | |
|---|--|
| 1. Is there a risk that the project will not be implemented in compliance with national laws, UN rules, principles and procedures? | |
| 2. Could the project lead to a reduction in the working standards of the local community? | |
| 3. Is there a risk that the project related staff for the proposed project will be unfairly remuneration for their work and contribution to project implementation? | |
| 4. Is there a risk that community contracts will not be implemented according to ILO standards? | |
| 5. Is there a risk that underage persons will be employed during the project cycle? | |
| 6. Could the proposed project lead to a situation where a project worker is unable to report any instance of grievance? | |

Adaptation Fund Safeguard Area 6: Enhancing community health, safety and security

- | | |
|---|--|
| 1. Is there a risk that the project will not be implemented in compliance with national laws, UN rules, principles and procedures? | |
| 2. Could the local community be exposed to risk from unsafe machinery during the project cycle? | |
| 3. Is there a risk that community members may use some machinery without sufficient training or knowledge and/or not have protective equipment? | |
| 4. Would the outcomes of the project be likely to malfunction and cause injury to members of the community? | |
| 5. Will the project expose the communities/beneficiaries to increased levels of pollutants or unsafe water? | |

Adaptation Fund Safeguard Area 7: Safeguarding land, housing, resettlement and rights

- | | |
|--|--|
| 1. Is there a risk that the project will not be implemented in compliance with national laws, UN rules, principles and procedures? | |
| 2. Could the proposed project lead to unintended resettlement consequences? | |
| 3. Is there a risk that during the (unlikely) instance of unintended resettlement that affected populations will not have the chance to raise objections or concern? | |
| 4. Will communities affected by unintended resettlement be refused their right of free, prior and informed consent? | |
| 4. Will the proposed project neglect to uphold the components of Participatory Land Use Planning, as detailed by the Adaptation Fund? | |

Adaptation Fund Safeguard Area 8: Access and Equity

- | | |
|--|--|
| 1. Could the proposed project result in the unequal distribution of benefits between different groups in the affected community? | |
| 2. Could the proposed project lead to a situation where there is not a channel available to report instances of grievance or unequal access to benefits? | |

Adaptation Fund Safeguard Area 9: Reducing the climate and environmental footprint

- | | |
|--|--|
| 1. Is there a risk that the project will not be implemented in compliance with national laws, UN rules, principles and procedures? | |
| 2. Could the proposed project lead to mal-adaptation? | |
| 3. Is there a risk that the project will not adequately monitor its environmental footprint and impact throughout the project cycle? | |

Adaptation Fund Safeguard Area 10: Conserving biodiversity

1. Is there a risk that the project will not be implemented in compliance with national laws, UN rules, principles and procedures?	
2. Could the proposed project be constructed in a conservation or protected area?	
3. Is there a risk that the proposed project will negatively impact upstream or downstream biodiversity?	
Adaptation Fund Safeguard Area 11: Protection of Natural Habitats	
1. Is there a risk that the proposed project will fail to protect natural habitats?	
2. Could the proposed project lead to a detrimental alteration of surrounding natural habitats?	
Adaptation Fund Safeguard Area 12: Lands and Soil Conservation	
1. Could the proposed project lead to the depletion of soil nutrients in the affected area?	
2. Is there a risk that the proposed project will adversely impact the surrounding land area?	
Adaptation Fund Safeguard Area 13: Protection for Indigenous people	
1. Is there a risk that the project will not be implemented in compliance with national laws, UN rules, principles and procedures?	
2. Is there a risk that the proposed project will lead to increased levels of discrimination against indigenous peoples?	
3. Is there a risk that the proposed project will fail to engage indigenous people in decision making.	
4. Could the proposed project lead to unequal outcomes where Indigenous people are not able to enjoy equal access to the resulting services?	
Adaptation Fund Safeguard Area 14: Marginalized and Vulnerable groups	
1. Is there a risk that the proposed project will cause detrimental impact to the lives of marginalized or vulnerable groups?	
2. Could the proposed project lead to increased discrimination against marginalized or vulnerable people?	
3. Will the proposed project limit the access to natural resources or project benefits for marginalized and vulnerable groups?	
Adaptation Fund Safeguard Area 15: Protecting and promoting cultural heritage	
1. Is there a risk that the project will not be implemented in compliance with national laws, UN rules, principles and procedures?	
2. Is there a chance that the proposed project will cause damage to a cultural heritage UNESCO site?	
3. Could the proposed project be implemented without having completed a vulnerability assessment?	

Table 3: Identifying risks mitigation measures

Table partially filled out, to provide examples for project staff to complete the table fully. Please use the checklist (table ...) on page ... to identify risks

WHAT ARE THE POTENTIAL ENVIRONMENTAL AND SOCIAL RISKS?				
Description of Risk	Impact (I) and Probability (P). Score 1 - 5	Significance (low or medium)	Comments	Safeguard measures that have been incorporated to address potential risk
Risk that the project will fail to comply with national laws in Lao PDR, UN rules, principles and procedures.	I = 1 P= 1	Low	UN-Habitat is a signatory of UN Conventions and the proposed project has been designed to adhere to national Laos law.	Project Manager to work in cooperation with the Department of ESIA of MoNRE and Written details of the proposed project will be shared with Lao PDR.
Risk that marginalized groups will be ignored and excluded from stakeholder engagement and community participation?	I = 3 P= 1	Low		
Risk that the proposed project will lead to maladaptation either upstream or downstream from the project site	I = 1 P= 1	Medium		

Classification of sub-projects

TABLE 4: PROJECT CATEGORIZATION

Select risk level:		Comments
A1: Low Risk	<input type="checkbox"/>	The proposed project has been classified as Medium Risk because...
B2: Medium Risk	<input checked="" type="checkbox"/>	
C3: High Risk	<input type="checkbox"/>	

TABLE 5: RELEVANT SAFEGUARD AREAS FOR PROJECT IMPLEMENTATION

Select all that apply		Comments
1	Compliance with the Law	<input checked="" type="checkbox"/>
2	Human Rights	<input checked="" type="checkbox"/>
3	Climate Change	<input checked="" type="checkbox"/>
4	Gender Equity and Women's Empowerment	<input checked="" type="checkbox"/>
5	Promoting better labour and working conditions	<input checked="" type="checkbox"/>
6	Enhancing community health, safety and security	<input checked="" type="checkbox"/>
7	Safeguarding land, housing, resettlement and rights	<input type="checkbox"/>
8	Access and Equity	<input checked="" type="checkbox"/>
9	Reducing the climate and environmental footprint	<input checked="" type="checkbox"/>
10	Conserving biodiversity	<input checked="" type="checkbox"/>
11	Protection of Natural Habitats	<input checked="" type="checkbox"/>
12	Lands and Soil Conservation	<input checked="" type="checkbox"/>
13	Protection for Indigenous people	<input checked="" type="checkbox"/>
14	Marginalized and Vulnerable groups	<input checked="" type="checkbox"/>
15	Protecting and promoting cultural heritage	<input type="checkbox"/>

TABLE 6: FINAL SIGN OFF

Signature	Date	Description
Assessor of sub-project		
Project manager		
M & E officer		

Annex 9: The Climate change vulnerability and disaster risk assessment / community consultation: Expected outcomes and methodology

Purpose and expected outcomes

In order to ensure that this project and related activities reduce the climate change vulnerability and disaster risks of communities/ethnic groups, we need to understand exactly what people and what areas are most vulnerable to its impacts and why. This information can be used to:

4. Identify low risk areas in which resilient infrastructure could be construction; and
5. Select and prioritize adaptation/resilient infrastructure options (in combination with community-based/ethnic specific selection criteria for sub-projects.

Safeguards / AF ESP alignment

Conducting these assessments in this project also includes collecting information for (sub-) project compliance with safeguards / AF ESP (e.g. vulnerable people, natural habitats and land) and involving vulnerable and marginalized groups in the process.

The methodology

The climate change vulnerability and disaster risk assessment methodology used for this project provides a framework for UN-Habitat, the national government and local authorities to engage in a dialogue with local communities/ethnic groups. To do so, it provides a set of guiding questions for collecting and analyzing information at the community/ethnic group level.

The method is designed to feed into and strengthen planning processes on the community, settlement, district and provincial level, by providing the most important, context-specific information about the impacts of climate change and local, ethnic specific vulnerability and risks. Specifically, it will feed into local development plans (with a sectoral focus on land use and water use and infrastructure development) at the community, settlement, district, provincial and national level by ensuring that these plans contribute to building the resilience of settlements/communities/ethnic groups.

The method is participatory/community based (i.e. part of the people's process⁵⁹) in the way that it assists communities/ethnic groups to utilize UN-Habitat and governmental guidance and knowledge in their decision-making, rather than base interventions on it. Instead, UN-Habitat and the government act as facilitators of group discussions that aim to analyze issues in the community/ethnic group jointly. The result is that communities/ethnic groups understand the nature of the problem and UN-Habitat and the Lao PDR government understand the level of knowledge in the communities/ethnic groups and how it can be used to achieve project outcomes, including conducting vulnerability and risk assessments at the provincial and district level. Whereas the method at the community level is focused on community processes (the people's process), the method used for conducting assessments at the provincial and district level focuses more on institutional processes.

⁵⁹ Development driven by people/Support Paradigm: when people stays at the center of development planning process, the resource can be optimized with greater utility impacting larger number of people: <http://sopheapfocus.com/wp-content/uploads/2010/06/Picture-31.png> People's process of development can be witnessed through the evolvement of people's desire to improve their lives. Humans developed their settlement from living in caves, then building shelters, and now home. Along this settlement evolution, they had also established certain norms, standards, and a mutual understanding surrounding their community. That is called the people's process of development.

Understanding vulnerability at a community level requires an approach that looks at both the physical (external hazard/risk) and social dimensions (internal susceptibility/coping of different groups) of vulnerability. Consequently, vulnerability is best understood as an aggregation of three components, exposure; sensitivity; and adaptive capacity (see key concepts below).

The approach for settlements/communities, districts & provincial and national assessments are different as shown in the table below.

Table 27: Settlements/communities, districts & provincial and national assessments approach.

Level of assessment	Focus	Method	Output	Expected outcome
Community/settlement	Community processes/people's process	Community-based; group discussion with questions (see below) ¹	Filled questionnaire; vulnerability and risk map; list of adaptation/resilient infrastructure options and prioritized options	Understanding of communities'/ethnic groups' perceptions of climate change vulnerability and disaster risks in the present and in the future. Based on this information, activities (including infrastructure projects) to reduce vulnerabilities and risks can be identified and prioritized.
District & provincial	Institutional: Guiding local level processes and aligning assessment outcomes	UN-Habitat vulnerability assessment method ²	Provincial and district level vulnerability and risk assessment reports, including maps; list of adaptation/resilient infrastructure options and prioritized options	Climate change vulnerability and disaster risks in the present and in the future mapped and analyzed, including ways to cope with climate related risks as well as identifying and strengthening the sustainability of resources that local communities continually use in coping and adapting to climate change impacts.
National	Institutional: Guiding local level processes and aligning assessment outcomes			Based on above information, barriers that stand in the way of increasing community level resilience to climate change can be identified and removed from national plans and policies

¹ Based on UNDP (2015) Implementing the vulnerability reduction assessment – practitioner's handbook.

² Based on UN-Habitat (2014) Planning for climate change: strategic values-based approach for urban planners.

Key concepts

- **Exposure** - nature and degree to which a system is exposed to significant climatic variations.
- **Sensitivity** - responsiveness of a system to climatic influences (shaped by both socio-economic and environmental conditions).
- **Adaptive capacity** - ability of communities to cope, reorganise and minimise loss from climate change impacts at different levels. The key determinant of adaptive capacity is access to resources/capital (natural, financial, social, human and physical).
- **Climate change**: A change of climate that is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and that is in addition to natural climate variability observed over comparable periods.
- **Vulnerability**: Refers to the degree to which people, places, institutions and sectors are susceptible to, and unable to cope with, climate change impacts and hazards.

Sources:

IPCC, 2007. Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, Parry, M.L., Canziani, O.F., Palutikof, J.P., van der Linden, P.J., Hanson, C.E. (Eds.), Cambridge University Press: Cambridge, UK, 976 pp.

UN-Habitat planning for climate change guide, including vulnerability assessment methodology:
<http://unhabitat.org/books/planning-for-climate-change-a-strategic-values-based-approach-for-urban-planners-cities-and-climate-change-initiative/>

Preparing for and planning the vulnerability and disaster risk assessment at the community level

When conducting the assessments, UN-Habitat will ensure that:

- There will be at least two trained facilitators per group (i.e. community/ethnic group); one to ask the questions and the other to record the answers;
- Communities/ethnic groups will be briefed about climate change at the start of the assessment;
- There will be a diverse cross section of participants by considering a 1) diverse geographic spread, 2) a good demographic spread (age, sex, status, income) and 3) good representation. Depending on the circumstances. Depending on the circumstances, assessment will be conducted with 'whole' groups, 'focus' groups or individuals.

Conducting the vulnerability and disaster risk assessment at the community level

1. Ethical Briefing

Purpose:

To ensure communities/ethnic groups understand expectations and the process

Expected outcome:

The communities/ethnic groups understand expectations and the process

The process:

The briefing will include at least an explanation of:

- Purpose of the session and what kind of information we are looking for
- What will the data collected be used for and who will see it
- The process: collection, verification and confidence

2. Trend analysis

Purpose:

To understand community/ethnic group perception of climate change in the past and for communities to become aware of changes and how climate change differs from weather change.

Expected outcome:

Community members agreement upon:

- A vulnerability/risk score for each time period:
 1. Not at all vulnerable
 2. Not very vulnerable
 3. Some vulnerability
 4. Vulnerable
 5. Very vulnerable
- One or two climatic hazards, which have most impacted them
- High vulnerable/risk areas in and around the community (on a map)

Climate Change Risks	Before 1990	1990 1995	1995 2000	2000 2005	2005 2010	2010 2015	Vulnerability/risk score + comments
Droughts frequency/risks							
Drought duration							
Damage cause by drought (crops)							
Flood frequency/risks							
Flood duration							
Damage cause by flood							
Landslide frequency/risks							
Damage cause by landslides							
Diseases frequency/risks							
Impact of diseases							
Rain level							
Rain predictability							

3. Questionnaire (incl. adaptation activities/resilient infrastructure selection)

To analyze current and future climate risks, barriers to adaptation and factors/resources facilitating the coping strategies used by community and way of improving their vulnerability.

1. The vulnerability of the community/ethnic group to existing climate change and or climate variability
 - What problems do you face because of the one or two most problematic climatic hazards (see result trend analysis) and how do these affect men and women in your community?
2. The vulnerability of the community/ethnic group to developing climate change risks
 - If the most problematic climatic hazards (see result trend analysis) would occur twice as often, what would be the effect on men and women in your community/ethnic group?
3. The magnitude of barriers (institutional, policy, technological, financial, etc.) to adaptation
 - What stops your community from coping with current impacts of the most problematic climatic hazards (see result trend analysis)? These can be e.g. lack of skills, lack of irrigation, water supply, health, etc. related infrastructure, lack of natural resources like forests, water, etc.).

Climate Change Risks	Factors stopping your community from coping with current impacts	Ranking per climatic hazard
The most problematic climatic hazards (see result trend analysis)		
The most problematic climatic hazards (see result trend analysis)		

4. The priorities to be addressed in strengthening the adaptive capacity of the community
 - What activities/infrastructure should be prioritized in order to improve your adaptive capacity to droughts, floods, landslides, heat/diseases? What is most important for the community?

Activities	Ranking

4. Community vulnerability and risk map

To understand where the vulnerable/risk areas are and where activities/infrastructure should be implemented/constructed in the community a community map should be developed showing at least:

- Location of houses and critical infrastructure
- Location of poorest people
- Elevation levels (if possible)
- Flood risk area
- Drought risk area
- Landslide risk area
- Dengue and malaria risk areas

The map can be drawn by hand.

Community map

5. Environmental and social problems and needs

The vulnerability and risk assessment can be used to get a better understanding of the environmental and social problems and needs in communities. This information can feed into the risk assessments of sub-projects. Community relevant Adaptation Fund safeguard areas are discussed below.

Human rights

- Have you ever been mistreated or are you worried you will be mistreated by the UN, the government, other communities, other ethnic groups or anyone else?

Gender Equity and Women's Empowerment

- Have you ever felt discriminated as a woman or are you worried you will be discriminated? Is it difficult as a woman to participate in decision-making processes? If so, why?

Protection for Indigenous people and Marginalized and Vulnerable groups

- Have you ever experienced or seen discrimination against indigenous peoples or elderly, disabled people or youth?

Access and Equity

- Are different groups (ethnic, women, elderly, disabled, youth) in the community treated differently? If so, how? Who is normally responsible for taking care of elderly, disabled people and children? Who normally takes care of money, water and food in the household?

Promoting better labour and working conditions

- How much do you earn on average during a day? Do children also work/help in the community? If so, what do they do?

Enhancing community health, safety and security

- Have you ever experienced dangerous situations during work or in the community? Have people been injured? If so, what was the cause? What diseases do community members suffer from? Have unexploded ordinances been found? If yes, where? What are the main causes of death in the community? What do you do against malaria, dengue and diarrhea?

Safeguarding land, housing, resettlement and rights

- Have you ever been asked to resettle or sell your land? If so, by whom and why?

Conserving biodiversity, Protection of Natural Habitats and lands and soil conservation

- Are there conserved or protected areas in or around the community? What areas should be protected to secure clean water and food/agriculture/fish/cattle?

