

Integrated Water Resource Management and Ecosystem-based Adaptation (EbA) in the Xe Bang Hieng River Basin and Luang Prabang City

Review PIF and Make a recommendation

Basic project information

GEF ID

10514

Countries

Lao PDR

Project Name

Integrated Water Resource Management and Ecosystem-based Adaptation (EbA) in the Xe Bang Hieng River Basin and Luang Prabang City

Agencies

UNDP

Date received by PM

3/20/2020

Review completed by PM

4/14/2020

Program Manager

Fareeha Iqbal

Focal Area

Climate Change

Project Type

FSP

PIF

Part I – Project Information

Focal area elements

1. Is the project/program aligned with the relevant GEF focal area elements in Table A, as defined by the GEF 7 Programming Directions?

Secretariat Comment at PIF/Work Program Inclusion

FI, 4/14/20:

Cleared.

FI, 3/25/20:

Not yet. Please enter a Climate Change Adaptation Rio Marker of "2", given this is an adaptation project.

Agency Response

UNDP, 13 April 2020:

This is well noted and the revision has been made.

Indicative project/program description summary

2. Are the components in Table B and as described in the PIF sound, appropriate, and sufficiently clear to achieve the project/program objectives and the core indicators?

Secretariat Comment at PIF/Work Program Inclusion

FI, 4/14/20:

Thank you for the revisions and explanations. This is cleared.

FI, 3/25/2020:

Not yet.

a) All Table B components generally and specifically Component 1 need to clarify how long-term changes in climate trends and variability are being considered. In Component 1, will climate models and climate change projections inform the hydrological models to map future flood and drought risk zones?

b) For Component 1.2.2, will the data produced by the weather stations be compliant with and transmitted to the WMO's 'Global Basic Observations Network'? We request that this be ensured, if possible.

c) The rationale for selection of Luang Prabang (as opposed to other cities adjacent to the Mekong) is not clear. Please discuss.

d) Section 1a of the PIF states that "climate change projections show that the vulnerability to floods and droughts is likely to increase [...] in the city of Luang Prabang". Please (i) provide a summary (with reference to source of information) for the climate change projections for Luang Prabang; and (ii) also provide information on vulnerability to current climate variability for Luang Prabang; how are communities, their assets and infrastructure currently affected?

e) Please provide more information on current vulnerability of the population at the proposed project locations. What issues do they face?

f) Much of the information on drivers of degradation and vulnerability appears to be factors unrelated to climate change, such as unsustainable practices. Effective and sustained adaptation can only occur when these causes are also addressed. What policy/regulatory measures are being taken in this regard?

g) Component 1:

1) Please discuss what is meant by revised early warning systems (EWS)? Also, how many EWS will be supported, and how many people will they be delivering warnings to?

2) Please describe the specific proposed on-the-ground investments in Luang Prabang and how they will support integrated urban flood management in a manner that includes climate change considerations.

Agency Response

UNDP, 13 April 2020:

a) Well noted. The climate rationale and Component descriptions in Sections 1.a.1, 1.a.3, and 1.a.5 have been revised to more clearly articulate how and where long-term impact scenarios have been considered in project design. The climate rationale and activity design has also considered evidence from recent hazard occurrences and their associated losses and damages to inform needs and relative vulnerability.

In Component 1 particularly, it has been made clearer that climate models and climate change projections will inform the hydrological models produced under Output 1.1.2 in order to map current and prospective high-risk climate hazard areas.

b) The request is well noted. The PIF has been revised to confirm that the data produced by the weather stations will be compliant with, and transmitted to, the WMO's 'Global Basic Observations Network'.

c) Well noted. Luang Prabang was selected as a site for this project as it is one of the most exposed cities in Lao PDR to flooding. Recurrent hazard occurrence, especially flood events with recorded losses and damages in the past 5-10 years give evidence for this vulnerability. A GCF SAP project is addressing flood risk management in four other cities that are vulnerable to flooding in Lao PDR, but does not include Luang Prabang. The proposed LDCF project will expand the area of certain activities from this GCF project to improve flood risk management in Luang Prabang. The rationale for site selection in Section 1.a.1 has been expanded to include this information.

d) Well noted. Further information has been provided in Section 1.a.1 about climate projections for Lao PDR and how these are likely to affect Luang Prabang, particularly with reference to flooding. Additional information on the impact of previous flood events is also given in Section 1.a.1. Unfortunately, the COVID-19 situation has limited access to government resources at this time, to provide further detail and sources.

e) Well noted. Information on losses and damages to the target populations that have resulted from floods and droughts in the last few years have been added to Section 1.a.1.

f) Well noted. Information on policies, strategies and projects that are in place to address these baseline challenges have been included in 1.a.1 with reference to further detail in other sections of the PIF.

g)

1) The project description for Component 1 has been revised to clarify that current early-warning systems in Xe Bang Hieng catchment communities are not well integrated to different hazard responses and not well adapted to the projected increased risks of floods and droughts. The revised EWS will include capacity building and improved methodologies to analyse and interpret climate data and forecasts (such as that produced by the weather stations and hydrological monitoring network), as well as upgrading formal and informal tools (such as radio, loudspeakers, written materials) used to disperse and communicate climate warnings to affected communities in the target catchment communities. The number and scope of EWS will depend upon the final target communities identified during site selection in Project Document preparation.

2) In addition to the development of ICFMS, economic valuations and urban EbA guidelines for the city, options analyses will be conducted for on-the-ground investments in peri-urban areas of Luang Prabang and at the broader sub-catchment level to minimize the flood risk exposure. Indicative investments here would scale those planned under the GCF “*Building resilience of urban populations with ecosystem-based solutions in Lao PDR*” project in Vientiane, Paksan, Pakse and Savannakhet city, including: i) wetland restoration and management; ii) natural urban stream rehabilitation and management; and iii) permeable paving solutions in public areas. These types of ecosystem-based interventions will help rehabilitate or restore important urban ecological systems that fulfil a vital role in flood reduction and ecosystem service provision, but that have become lost or degraded due to urban development. These interventions will improve climate resilience at an urban ecosystem level by reducing the impact of climate-induced flooding — which is projected to increase — through improved infiltration, runoff control, reduced velocity of flash floods, soil and riverbank stabilisation, and erosion control. The Component 1 description has been revised to include this detail.

Co-financing

3. Are the indicative expected amounts, sources and types of co-financing adequately documented and consistent with the requirements of the Co-Financing Policy and Guidelines, with a description on how the breakdown of co-financing was identified and meets the definition of investment mobilized?

Secretariat Comment at PIF/Work Program Inclusion

FI, 4/14/20:

Cleared for PIF stage. By CEO Endorsement, we expect to see a much higher ratio of grant financing leveraged by this \$6 million project.

FI, 3/25/2020:

Not yet.

a) In Table C, please correctly categorize the UNDP Grant co-finance (only "in-kind" co-finance is categorized as "recurring expenditure" as per the GEF co-finance policy.

b) How is the \$19 million of in-kind co-finance derived? From which initiatives?

c) We expect UNDP to seek bring greater grant resources for an LDCF grant of this size. The currently proposed amount (\$0.5 million) is very small; please increase the amount.

Agency Response

UNDP, 13 April 2020:

a) Well noted, this has been corrected.

b) The co-finance will be part of the ongoing initiatives of the Department of Water Resources (MONRE), particularly including the \$25.6 million World Bank project Mekong Integrated Water Resources Management Project (2012–2021). In addition, in-kind support will be provided with government facilities available to support the implementation of the project.

c) UNDP is not able to commit more funds to this project, given the size of the project, the limited TRAC funds available for UNDP Lao PDR, and the amounts already committed by UNDP to other ongoing GEF and development projects in the country. \$50,000 per year represents ~30+% of the total TRAC funding available (non-programmed CO resources) for UNDP Lao PDR.

GEF Resource Availability

4. Is the proposed GEF financing in Table D (including the Agency fee) in line with GEF policies and guidelines? Are they within the resources available from (mark all that apply):

Secretariat Comment at PIF/Work Program Inclusion FI, 3/25/2020:

Yes.

Agency Response

The STAR allocation?

Secretariat Comment at PIF/Work Program Inclusion N/A

Agency Response

The focal area allocation?

Secretariat Comment at PIF/Work Program Inclusion N/A

Agency Response

The LDCF under the principle of equitable access

Secretariat Comment at PIF/Work Program Inclusion FI, 3/25/2020:

Yes.

Agency Response

The SCCF (Adaptation or Technology Transfer)?

Secretariat Comment at PIF/Work Program Inclusion N/A

Agency Response

Focal area set-aside?

Secretariat Comment at PIF/Work Program Inclusion N/A

Agency Response

Impact Program Incentive?

Secretariat Comment at PIF/Work Program Inclusion N/A

Agency Response

Project Preparation Grant

5. Is PPG requested in Table E within the allowable cap? Has an exception (e.g. for regional projects) been sufficiently substantiated? (not applicable to PFD)

Secretariat Comment at PIF/Work Program Inclusion FI, 3/25/2020:

Yes.

Agency Response

Core indicators

6. Are the identified core indicators in Table F calculated using the methodology included in the correspondent Guidelines? (GEF/C.54/11/Rev.01)

Secretariat Comment at PIF/Work Program Inclusion

FI, 4/14/20:

Cleared for PIF stage.

By CEO Endorsement, please clearly identify how LDCF-supported direct beneficiaries are being estimated in the context of larger baseline initiatives.

FI, 3/30/2020:

Further information and adjustment is requested:

(i) Please provide information on how the proposed number of direct beneficiaries was calculated;

(ii) Information on the remaining core indicators, which are also very relevant/applicable to the project's proposed activities, is missing. Please include in the excel sheet.

Agency Response

UNDP, 13 April 2020:

i) The number of beneficiaries was drawn from the 2015 Population and Housing Census accessed here: <https://data.humdata.org/dataset/lao-pdr-population-statistics> and here: https://lao.unfpa.org/sites/default/files/pub-pdf/PHC-ENG-FNAL-WEB_0.pdf

Number of beneficiaries included 75% of the district totals for Phine, Sepone, Thapangthong, Songkhone, Champhone, Xonbuly, Vilabuly, Atsaphone, and Phalanxay in Savannakhet Province. The number of beneficiaries from Luangprabang District in Luangprabang Province had erroneously been left out in the previous submission's calculations, but have now been included. The revised total number of beneficiaries is now 492,462, of which 247,991 are women and 244,471 are men. Further discussion of these indicators (including sources) has been added to Section 1.a.6.

ii) Well noted, these have been completed in the Indicator worksheet and further discussion of these indicators (including calculations/sources) has been added to Section 1.a.6.

Project/Program taxonomy

7. Is the project/ program properly tagged with the appropriate keywords as requested in Table G?

Secretariat Comment at PIF/Work Program Inclusion

FI, 4/14/20:

Cleared.

FI, 3/25/2020:

If possible, please also select terms relating to urban resilience.

Agency Response

UNDP, 13 April 2020:

Well noted, we have revised the Taxonomy to include urban resilience.

Part II – Project Justification

1. Has the project/program described the global environmental / adaptation problems, including the root causes and barriers that need to be addressed?

Secretariat Comment at PIF/Work Program Inclusion

FI, 4/14/20:

Cleared.

FI, 3/30/2020:

Review comment is pending agency responses to comments for item 2 of Part 1 of the review.

Agency Response

2. Is the baseline scenario or any associated baseline projects appropriately described?

Secretariat Comment at PIF/Work Program Inclusion

FI, 4/14/20:

Cleared.

FI, 3/25/2020:

Further information is requested.

How will the proposed project will deliver adaptation benefits additional to the World Bank's 'Mekong Integrated Water Resources Management Project', which also supports flood management? The World Bank project comes to a close next year; what are the implications for the proposed project?

Agency Response

UNDP, 13 April 2020:

Well noted, we have revised the description of the World Bank project and included the following information:

The proposed project will complement the flood management planning under the World Bank project by focusing its activities on climate change-induced flooding and drought management in the river basin. The activities will include mapping current and future zones of the Xe Bang Hieng River catchment at risk of climate change-induced flooding and drought.

The proposed project will also build upon the institutional arrangements made under the World Bank project by training the Xe Bang Hieng River Basin Coordinating Committee, established under the World Bank project, on the use of climate risk information in planning and implementing water management practices. Coordination meetings between the ongoing World Bank and proposed LDCF projects' teams in Savannakhet are envisaged before the closure of the World Bank project in 2021.

Additional baseline projects have also been integrated to Table 1.

3. Does the proposed alternative scenario describe the expected outcomes and components of the project/program?

Secretariat Comment at PIF/Work Program Inclusion

FI, 4/14/20:

Thank you. Cleared.

FI, 3/25/2020:

Please see comments for review item 2 of Part 1 of this review sheet.

Agency Response

UNDP, 13 April 2020:

Well noted, please see response above on Part I, Item 2 above.

4. Is the project/program aligned with focal area and/or Impact Program strategies?

Secretariat Comment at PIF/Work Program Inclusion

Yes, with the CCA Strategy for GEF-7.

Agency Response

5. Is the incremental / additional cost reasoning properly described as per the Guidelines provided in GEF/C.31/12?

Secretariat Comment at PIF/Work Program Inclusion

FI, 4/14/20:

Yes, the agency has strengthened the climate change adaptation rationale.

FI, 3/30/2020:

Not yet. Please see comment (a) for review item (2) of Part 1 of the review sheet.

Agency Response

UNDP, 13 April 2020:

Well noted, please see response above on Part I, Item 2(a) above.

6. Are the project's/program's indicative targeted contributions to global environmental benefits (measured through core indicators) reasonable and achievable? Or for adaptation benefits?

Secretariat Comment at PIF/Work Program Inclusion

FI, 4/14/20:

Yes, cleared.

FI, 3/30/2020:

Please see comments for item 6 of Part 1 of the review (on Core Indicators).

Agency Response

UNDP, 13 April 2020:

Well noted, please see response above on Part I, Item 6(a) and (b) above.

7. Is there potential for innovation, sustainability and scaling up in this project?

Secretariat Comment at PIF/Work Program Inclusion

Yes.

Agency Response

Project/Program Map and Coordinates

Is there a preliminary geo-reference to the project's/program's intended location?

Secretariat Comment at PIF/Work Program Inclusion

Yes.

Agency Response

Stakeholders

Does the PIF/PFD include indicative information on Stakeholders engagement to date? If not, is the justification provided appropriate? Does the PIF/PFD include information about the proposed means of future engagement?

Secretariat Comment at PIF/Work Program Inclusion

FI, 4/14/20:

Cleared. Information has been provided on stakeholder consultations held thus far, and a table identifying stakeholders and their roles. The stakeholder engagement process will deliberately target engagement with marginalized or vulnerable populations including women, the youth, and persons with disabilities.

FI, 3/26/2020:

Please provide further information on:

- (i) which stakeholders have already been consulted on the project activities; and
- (ii) how communities, including women, will be involved in project design and implementation.

Agency Response

UNDP, 13 April 2020:

Well noted, further detail has been added to *Section 2. Stakeholders* describing:

i) the consultation of stakeholders in Luang Prabang, government representatives from MONRE, and other UN agencies operating in the country, including FAO, UNEP and WFP;

and

ii) the methodology and approach for engaging communities (particularly women) during project design and implementation.

Gender Equality and Women's Empowerment

Is the articulation of gender context and indicative information on the importance and need to promote gender equality and the empowerment of women, adequate?

Secretariat Comment at PIF/Work Program Inclusion

Yes for PIF stage. The PIF outlines various ways in which the project is expected to promote gender equality, empower women, and reduce their vulnerability.

Detailed gender analysis will be undertaken during project preparation to identify relative vulnerabilities and adaptive capacities of women and men, which will inform project design as well as the stakeholder engagement approach.

Agency Response

Private Sector Engagement

Is the case made for private sector engagement consistent with the proposed approach?

Secretariat Comment at PIF/Work Program Inclusion

Yes for PIF stage. The project will seek to engage private sector actors in supporting the implementation and construction of protective infrastructure.

Agency Response

Risks

Does the project/program consider potential major risks, including the consequences of climate change, that might prevent the project objectives from being achieved or may be resulting from project/program implementation, and propose measures that address these risks to be further developed during the project design?

Secretariat Comment at PIF/Work Program Inclusion

Yes.

- Major risks have been considered and mitigation measures proposed.
- The Social and Environmental risk screening form has been uploaded.

Agency Response

Coordination

Is the institutional arrangement for project/program coordination including management, monitoring and evaluation outlined? Is there a description of possible coordination with relevant GEF-financed projects/programs and other bilateral/multilateral initiatives in the project/program area?

Secretariat Comment at PIF/Work Program Inclusion

FI, 4/14/20:

Cleared. Thank you for the explanations.

FI, 3/27/2020:

Not yet. Please discuss:

- a) Coordination with UNEP-LDCF ID 5815, which is under implementation, titled: "Building Climate Resilience of Urban Systems through Ecosystem-based Adaptation (EbA) in the Asia-Pacific Region" and which includes regions of Lao PDR;
- b) Alignment with vision for joint GEF-GCF programming in Lao PDR, following its Joint National Dialogue in February 2019. How does this project fit within Lao PDR's overall strategy for GEF and GCF programming, given not only ongoing/planned investments but also GCF NAPs Readiness funding?

Agency Response

UNDP, 13 April 2020:

a) Well noted, further detail has been added to *Section 6. Coordination* describing the coordination with the UNEP-LDCF project *Building Climate Resilience of Urban Systems through Ecosystem-based Adaptation (EbA) in the Asia-Pacific Region*. This regional project is currently being implemented and includes the city of Phongsaly in the North of Lao PDR. UNDP Country Office met with the UNEP project team to discuss synergies between projects while they were in the country in February 2020. The discussions covered how to best complement the work that the UNEP project will cover. A number of duplications were initially identified, which were taken into account in the development of this proposal. Further meetings are planned between the two project teams to ensure coordination between the initiatives.

b) Further detail has also been added to *Section 6. Coordination* describing the alignment of the proposed project with the vision for a joint GEF-GCF programming in Lao PDR. The proposed project is delivering on key priorities identified in the joint GEF-GCF National Dialogue in February 2019 that led to the development of a

coordinated GEF-GCF programming for Lao PDR. The UNDP Country Office and the Department of Water Resources have consulted with the GCF national designated authority and the GEF operational focal point in Lao PDR to ensure that activities under the proposed LDCF project are: i) scaling up urban EbA interventions implemented under the GCF and GEF projects (further described in the section); and ii) complementing adaptation initiatives in the vulnerable province of Savannakhet (also further described in the section). Although plans were made in early 2019 to align GCF and GEF investments in Lao PDR, the progress on these plans was delayed by organizational changes in the interested parties.

Although there is no approved GCF NAP Readiness proposal, the Lao PDR GCF Country Programme (February 2019) suggests how GEF and GCF can identify future joint investments in the country's NAP process, building on the PIF approved in 2018 *Building the capacity of the Lao PDR government to advance the National Adaptation Planning process*. The Department of Climate Change has indicated that they plan to conduct Climate Risk and Vulnerability Assessments (CRVA) in preparation for the NAP process. These assessments are planned for July 2020, although may be delayed pending the development of the COVID-19 outbreak. A footnote has been added to this section with this information.

Consistency with National Priorities

Has the project/program cited alignment with any of the recipient country's national strategies and plans or reports and assessments under relevant conventions?

Secretariat Comment at PIF/Work Program Inclusion

FI, 4/14/20:

Cleared.

FI, 3/20/2020:

Further information in requested.

The climate change adaptation plans/strategies referred to in Section 7 of the PIF are about ten years old. Are there any recent national strategy/vision documents identifying adaptation priorities for the country?

Agency Response

UNDP, 13 April 2020

Well noted, more recent plans, strategies and policies have been added to the table in Section 7 including:

- Decree on Climate Change (2019)
- Lao PDR – United Nations Partnership Framework 2017–2021
- Law No. 36/NA on Meteorology and Hydrology (2017)
- Environmental Protection Law (2013)
- Water and Water Resources Law (2019)
- Disaster Risk Management Law (2019)
- Ten Year Natural Resources and Environment Strategy, 2016-2025
- Renewable Energy Development Strategy (2011)
- Urban Development Strategy to 2030
- Vision 2030 and Ten Year Socio-economic Development Strategy (2016-2025)

Additionally, the Department of Climate Change is developing the National Adaptation Plan with UNEP which is planned for completion by 2024.

Knowledge Management

Is the proposed “knowledge management (KM) approach” in line with GEF requirements to foster learning and sharing from relevant projects/programs, initiatives and evaluations; and contribute to the project’s/program’s overall impact and sustainability?

Secretariat Comment at PIF/Work Program Inclusion

Yes.

Agency Response

Part III – Country Endorsements

Has the project/program been endorsed by the country’s GEF Operational Focal Point and has the name and position been checked against the GEF data base?

Secretariat Comment at PIF/Work Program Inclusion

FI, 4/14/20:

Cleared.

FI, 3/30/2020:

No. The LoE needs to be revised and resubmitted for the following reasons:

- (i) In the ‘Source of Funds’ column, instead of specifying LDCF, “GEF” has been entered, which refers to the GEF Trust Fund. Please replace with “LDCF”;
- (ii) The Focal Area should state Climate Change (or Climate Change Adaptation); and
- (iii) The text under the table should not present the LDCF funds as a STAR modality.

Agency Response

UNDP, 13 April 2020:

Well noted, it has been revised accordingly and signed and has been attached, date 8 April 2020.

Termsheet, reflow table and agency capacity in NGI Projects

Does the project provide sufficient detail in Annex A (indicative termsheet) to take a decision on the following selection criteria: co-financing ratios, financial terms and conditions, and financial additionality? If not, please provide comments. Does the project provide a detailed reflow table in Annex B to assess the project capacity of

generating reflows? If not, please provide comments. After reading the questionnaire in Annex C, is the Partner Agency eligible to administer concessional finance? If not, please provide comments.

Secretariat Comment at PIF/Work Program Inclusion

N/A

Agency Response

GEFSEC DECISION

RECOMMENDATION

Is the PIF/PFD recommended for technical clearance? Is the PPG (if requested) being recommended for clearance?

Secretariat Comment at PIF/Work Program Inclusion

4/14/20:

Yes.

FI, 3/30/2020:

Not yet. The agency is requested to please respond to the following comments of the review sheet:

Part I: review items 1, 2, 3, 6, and 7;

Part II: review items 2, 3, 5 and 6.

Please also respond to comments on these sections: (a) Stakeholders; (b) Coordination; (c) Consistency with national priorities; and (d) OFP endorsement letter.

ADDITIONAL COMMENTS

Additional recommendations to be considered by Agency at the time of CEO endorsement/approval.

Secretariat Comment at PIF/Work Program Inclusion

FI, 4/14/20:

By CEO Endorsement, the agency is requested to please clarify:

1. How the various core indicators (beneficiaries, number of hectares) have been estimated relative to baseline initiatives;
2. The various on-the-ground investments being supported by the project, with their climate change adaptation rationale explained;
3. Additional investment mobilized in co-finance for the project;
4. How the capacity of private sector entities will be built in terms of better understanding climate risks and adjusting construction/design standards and analytics to take climate change into account.

Review Dates

	PIF Review	Agency Response
First Review		
Additional Review (as necessary)		
Additional Review (as necessary)		
Additional Review (as necessary)		
Additional Review (as necessary)		

PIF Recommendation to CEO

Brief reasoning for recommendations to CEO for PIF Approval

CONTEXT and BACKGROUND

This project will improve the resilience of communities in Savannakhet Province and the city of Luang Prabang to floods and droughts, through integrated management of sites in the Mekong River Basin. Present-day vulnerability to flood and drought is already high, and climate change projections for Lao PDR show that their frequency and/or intensity is likely to increase; e.g., a greater number of days with heavier rainfall is projected, as well as an increase in the length of the dry season. The project targets communities in two particularly vulnerable areas: (i) in Savannakhet province, located in the Xe Bang Hieng river basin (major tributary of the Mekong River), where poor natural resource management and climate variability are adversely affecting agriculture, livelihood and food security and downstream safety; and (ii) the city of Luang Prabang, situated at the confluence of the Mekong and Nam Khan Rivers, where floods currently cause damage to transport and communication infrastructure, housing, nearby agricultural lands, and pollution of water sources.

COMPONENTS and RESULTS

The project has three components, focused on improved planning and assessment around climate resilience at both locations, and physical adaptation investments in Savannakhet province.

Component 1 will support identification and mapping of current and expected future flood zones of the Xe Bang Hieng River, improve its hydrological monitoring network and update early warning and emergency procedures for vulnerable communities. In Luang Prabang, the project will support economic valuation of urban ecosystem services and drafting and validation of climate-resilient development and land-use plans. In addition, options analyses will be conducted for on-the-ground investments in peri-urban areas of Luang Prabang to minimize the flood risk exposure through improved infiltration, runoff control, reducing the velocity of flash floods, and stabilizing soil and riverbanks (potential options include wetland restoration and management; natural urban stream rehabilitation and management; and permeable paving solutions in public areas).

Component 2 will support ecosystem based adaptation measures to restore ecological integrity of the Xe Bang Hieng river basin headwater zone, protecting critical ecosystem services while reducing flood/drought risk in the area and downriver, and also strengthening and diversifying livelihoods to reduce community pressure on the land and forest. Green and grey protective infrastructure will be supported to mitigate the impacts of floods and droughts in the lowlands and headwaters.

Component 3 will focus on trainings and awareness raising on climate change risks and adaptation measures for communities and the private sector.

The project is expected to directly benefit 492,462 people, of whom over fifty percent will be women, and to enhance the climate resilient management of 86,000 ha of land. It will mainstream climate resilience in ten policies and plans, and train 2,116 people in climate change adaptation and vulnerability reduction.

INNOVATION, SUSTAINABILITY, SCALE-UP & GENDER

In adopting an integrated approach to river basin/catchment management for adaptation, the project will seek to balance the potentially competing priorities and interests of various sectors (including water, agriculture, land), in pursuing economic development, social equity, environmental sustainability, and climate resilience. Such an approach is still relatively new in the country in the context of adaptation.

Sustainability will be promoted by aiming to ensure country and beneficiary ownership, through alignment with national, provincial and district development/adaptation priorities as well as through stakeholder engagement and participatory project development and implementation. The project also builds upon previous and ongoing projects and will seek to address gaps and promote complementarity.

The prospect for scaling up the approaches that the project will employ is high, as both integrated catchment management (ICM) and the development of integrated climate-resilient flood management strategy (ICFMS) approaches include scalable methodologies and activities that are transferable to other river basins and cities in Lao PDR, as well as in neighboring countries.

Coordination with relevant ongoing or planned investments will be ensured, including related GEF and non-GEF initiatives. The project will coordinate in particular with the GCF, as part of the coordinated approach in the country.