

GEF-8 REQUEST FOR CEO ENDORSEMENT/APPROVAL

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General Project Information

Project Title

Promoting climate-resilience through ecosystem-based adaptation (EbA) solutions in the Northern Lao PDR

Region

Asia

GEF Project ID

11695

Country(ies)

Lao PDR

Type of Project

FSP

GEF Agency(ies):

UNDP

GEF Agency Project ID

9814

Project Executing Entity(s)

Department of Environment (DoE) under the Ministry of
Agriculture and Environment (MAE)

Project Executing Type

Government

GEF Focal Area (s)

Climate Change

Submission Date

1/17/2026

Type of Trust Fund

LDCF

Project Duration (Months)

60

GEF Project Grant: (a)

6,192,694.00

GEF Project Non-Grant: (b)

0.00

Agency Fee(s) Grant: (c)

588,306.00

Agency Fee(s) Non-Grant (d)

0.00

Total GEF Financing: (a+b+c+d)

6,781,000.00

Total Co-financing

27,300,000.00

PPG Amount: (e)

200,000.00

PPG Agency Fee(s): (f)

19,000.00

Total GEF Resources: (a+b+c+d+e+f)

7,000,000.00

Project Tags

CBIT: No NGI: No SGP: No Innovation: Yes Competitive Window: No

Project Sector (CCM Only)

Climate Change Adaptation Sector

Taxonomy

Focal Areas, Climate Change, Climate Change Adaptation, Climate Change Mitigation, Influencing models, Transform policy and regulatory environments, Strengthen institutional capacity and decision-making, Deploy innovative financial instruments, Convene multi-stakeholder alliances, Demonstrate innovative approaches, Stakeholders, Indigenous Peoples, Private Sector, SMEs, Beneficiaries, Local Communities, Civil Society, Community Based Organization, Non-Governmental Organization, Academia, Type of Engagement, Information Dissemination, Partnership, Consultation, Participation, Communications, Awareness Raising, Education, Public Campaigns, Behavior change, Capacity, Knowledge and Research, Capacity Development, Knowledge Generation, Knowledge Exchange, Innovation, Learning, Theory of change, Adaptive management, Indicators to measure change, Gender Equality, Gender Mainstreaming, Women groups, Sex-disaggregated indicators, Gender results areas, Access and control over natural resources, Access to benefits and services, Knowledge Generation and Exchange, Participation and leadership, Biodiversity, Protected Areas and Landscapes, Productive Landscapes, Mainstreaming, Agriculture and agrobiodiversity, Financial and Accounting, Conservation Finance, Land Degradation, Sustainable Land Management, Sustainable Agriculture, Sustainable Forest, Least Developed Countries, Climate resilience, Mainstreaming adaptation, Private sector, Climate information, Ecosystem-based Adaptation, Community-based adaptation, Livelihoods, Agriculture, Forestry, and Other Land Use, United Nations Framework Convention on Climate Change, Nationally Determined Contribution, Paris Agreement

Rio Markers

Climate Change Mitigation	Climate Change Adaptation	Biodiversity	Land Degradation
Significant Objective 1	Principal Objective 2	Significant Objective 1	No Contribution 0

Project Summary

Provide a brief summary description of the project, including: (i) what is the problem and issues to be addressed? (ii) what are the project objectives, and if the project is intended to be transformative, how will this be achieved? (iii), how will this be achieved (approach to deliver on objectives), and (iv) what are the GEBs and/or adaptation benefits, and other key expected results. The purpose of the summary is to provide a short, coherent summary for readers. (max. 250 words, approximately 1/2 page)

The project aims to enhance resilience and sustainable livelihoods in the Northern Highlands of Lao PDR by addressing the interconnected challenges of climate variability, ecosystem degradation, and livelihood vulnerability across three target provinces (Oudomxay, Phongsaly, Xiengkhouang) and three target landscapes (Boun Neua District of Phongsaly Province, Lah District of Oudomxay Province, and Pha Xai District of Xiengkhouang Province). These landscapes are highly exposed to floods, landslides and droughts, while also facing pressures from unsustainable land use and limited access to resilient livelihood opportunities. These dynamics undermine critical ecosystem services and increase vulnerability of rural and ethnic communities dependent on natural resources.

To address these challenges, the project adopts a systemic ecosystem-based adaptation (EbA) approach, combining adaptation governance reform, ecosystem restoration and sustainable livelihood development. It will do so by undertaking the following interventions:

- First, the project will strengthen national and provincial governance mechanisms by developing one national EbA tool to improve decision-making and implementation capacities for EbA solutions. This will include adopting three (3) new provincial policies and regulations to foster the integration of EbA into three (3) provincial development plans and enhancing the skills of national and sub-national government personnel to apply the tool to designing EbA solutions in tandem to the adopted EbA plans/financing roadmap.
- Second, the project focuses on advancing EbA solutions in northern Lao PDR, where critical protected and watershed areas will be brought under improved management, restoration (passive) and rehabilitation (agroforestry-based afforestation), involving 2,500 conservation households (at least 50% are ethnic people). This intervention will benefit at least 12,000 individuals directly (50% are women). At least US\$ 200,000 sustainable financing will also be mobilised to support the implementation of EbA for the conservation households through sustainable market linkages and community enterprise development, all demonstrating a 20% increase in their income against baseline conditions.

- Third, the project will strengthen knowledge systems, stakeholder engagement, and inclusive participation, ensuring that EbA solutions are adaptive, scalable, and aligned with national priorities, including the National Adaptation Plan (2025) and Lao PDR’s climate and biodiversity commitments.

Through these interventions, the project will generate significant global environmental benefits by improving the management of 5,900 hectares of climate-resilient landscapes, strengthening ecosystem services and biodiversity outcomes, and enhancing resilience for 755,296 direct beneficiaries. It will also support the mainstreaming of climate resilience through three policies and plans, strengthen awareness and capacity among 152 stakeholders (50% women), and engage six private sector enterprises in climate adaptation and nature-based solutions. In addition, the project is expected to deliver climate mitigation co-benefits through enhanced carbon sequestration from restored and sustainably managed landscapes (approximately 1,408,300 metric tCO₂eq emissions over its 20-year accounting period^[1]).

^[1] See Annex 24

Project Description Overview

Project Objective

Enhancing resilience and sustainable livelihoods in the watershed areas of the Northern Lao PDR through acceleration of the integration of ecosystem-based adaptation (EbA) solutions at the national and subnational levels

Project Components

1. Enhancing climate adaptation governance to integrate EbA solutions

Component Type	Trust Fund
Technical Assistance	LDCF
GEF Project Financing (\$)	Co-financing (\$)
1,424,917.00	6,883,755.00

Outcome:

Outcome 1. Strengthened national and provincial governance mechanisms, leading to improved coordination, planning and implementation capacities to integrate ecosystem-based solutions for climate adaptation

Output:

Output 1.1. National level remote-sensing-based tool/application developed for assessing close to real-time climate risks and vulnerabilities to design comprehensive local EbA solutions.

Output 1.2. Provincial regulations / policies directing the integration of EbA approaches in government programs / planning documents.

Output 1.3. Comprehensive GESI-responsive /EbA plans for the target provinces (considering future climate risks and vulnerability), with adaptation finance roadmaps and investment plans included.

Output 1.4. Capacity training for key government officials at the national and sub-national levels on the utilization of EbA tool (Output 1.1.) and development of EbA plans (Output 1.3).

2. Advancing EbA application and financing at the local level

Component Type	Trust Fund
Investment	LDCF
GEF Project Financing (\$)	Co-financing (\$)
3,312,292.00	14,914,802.00

Outcome:

Outcome 2. More effective, coordinated and integrated implementation and financing of ecosystem-based adaptation solutions in the northern Laos watershed landscapes, strengthening community resilience and livelihoods.

Output:

Output 2.1. Support for ‘conservation communities’ to implement GESI-responsive integrated EbA solutions (agroforest-oriented watershed restoration and rehabilitation) in the target districts.

Output 2.2. Sustainable financing schemes (from private CSR fund, blended, REDD+, etc.) leveraged for the target ‘conservation communities’ to implement EbA solutions (in relation to Output 2.1).

Output 2.3. Assessment reports on potential market linkages built upon value chain analysis for community’s sustainable agroforest and/or NTFP products (in relations to Outputs 2.1 and 2.2.).

Output 2.4. GESI-responsive community-based enterprises established to strengthen conservation communities’ livelihoods, including provision of climate-smart agriculture/agroforestry practices training (in relation to Output 2.3).

Output 2.5. GESI- responsive community -based natural resource monitoring.

3. Knowledge Management, gender and social inclusion

Component Type	Trust Fund
Technical Assistance	LDCF
GEF Project Financing (\$)	Co-financing (\$)
983,917.00	2,920,035.00

Outcome:

Outcome 3: Increased public awareness/understanding and knowledge of EbA solutions, financing and implementation through effective lessons documentation and sharing at both national and sub-national levels.

Output:

Output 3.1. GESI-responsive stakeholder engagement, communication and outreach strategies, tailored to specific entities.

Output 3.2. GESI-focused knowledge products and communication materials, conferences, and events at national and sub-national levels to disseminate the project's best practices and lessons learned.

M&E

Component Type	Trust Fund
Technical Assistance	LDCF
GEF Project Financing (\$)	Co-financing (\$)
176,758.00	860,469.00

Outcome:

Output:

Output 3.3. Project-level M&E mechanism enables effective project management and monitoring, and delivery of project impacts and sustainability.

Output 3.4. Effective application of the Environmental and Social Management Safeguard procedures to facilitate inclusive and gender-responsive participation of Indigenous Peoples and Local Communities (IPLCs).

Component Balances

Project Components	GEF Project Financing (\$)	Co-financing (\$)
1. Enhancing climate adaptation governance to integrate EbA solutions	1,424,917.00	6,883,755.00
2. Advancing EbA application and financing at the local level	3,312,292.00	14,914,802.00
3. Knowledge Management, gender and social inclusion	983,917.00	2,920,035.00
M&E	176,758.00	860,469.00
Subtotal	5,897,884.00	25,579,061.00
Project Management Cost	294,810.00	1,720,939.00
Total Project Cost (\$)	6,192,694.00	27,300,000.00

Please provide Justification

PROJECT OUTLINE

A. PROJECT RATIONALE

Describe the current situation: the global environmental problems and/or climate vulnerabilities that the project will address, the key elements of the system, and underlying drivers of environmental change in the project context, such as population growth, economic development, climate change, sociocultural and political factors, including conflicts, or technological changes. Describe the objective of the project, and the justification for it. (Approximately 3-5 pages) see guidance here

A. Project Rationale

The Lao People's Democratic Republic (Lao PDR) or Laos is a landlocked country in Southeast Asia, situated in Central Indochina between latitudes 13° 54'-22° 30' North and longitudes 100° 05'-107° 59' East. It shares borders with Vietnam to the east, Thailand to the west, Cambodia to the south, and Myanmar and China to the north. Covering a total land area of approximately 236,800 km², Laos' landscape is predominantly mountainous, with elevations ranging from 80 meters above sea level in the south to 2,820 meters at Phou Bia Mountain in Xiengkhuang Province in the far northeast. Around 20% of the country consists of floodplains along the Mekong River, which enters from China in the northwest, flows eastward to Luang Prabang Province, and then southward along the borders with Thailand, Vietnam, and Cambodia.^{[1]2}

The country experiences a tropical to sub-tropical climate, heavily influenced by the monsoon, resulting in distinct wet and dry seasons. The rainy season, dominated by southwest winds, usually lasts from May to September, while the dry season extends from October to April, characterized by northeast winds. Annual rainfall varies significantly, ranging from 1,000 mm in the north to 3,000 mm in the south, with daily temperatures fluctuating from 10° C in January to 38° C in July.^{[2]3} The northern regions tend to be cooler than the southern lowlands, where the climate is classified as tropical, while higher elevations and mountainous areas are considered sub-tropical. This geography and climate create a closely connected system in which watershed health, rainfall timing, land use and rural livelihoods are interdependent. The country's monsoon climate further reinforces this exposure, because even relatively small changes in rainfall timing, intensity or duration can have major effects on water availability, agricultural production and disaster risk.

Laos have been experiencing rapid economic growth, with a pre-COVID-19 GDP of around \$18 billion, growing at 6% annually, driven by investments in agriculture, forestry, hydropower, and mining.^{[3]4} Despite reducing poverty from 46% (2007-2008) to 18.3% (2018-2019)^{[4]5}, about 75% of the population still depends on the informal sector, with only 16.6% of formally employed people covered by social protection schemes.^{[5]6} Agriculture is the main livelihood for 70-80% of Laotians, contributing about 30% of GDP, even though only 4% of land is arable.^{[6]7} Forests provide vital Non-

Timber Forest Products (NTFPs) that significantly support rural and ethnic communities, particularly the poorest households, who rely on NTFPs for 90% of their income.^{[7]⁸} However, expanding agriculture and resource extraction are increasing pressure on ecosystems, leading to deforestation and degradation. The result is a development model in which many rural households depend both on climate-sensitive agriculture and on forest ecosystems whose ecological integrity is being weakened.

Furthermore, Laos is highly vulnerable to climate change. Its reliance on agriculture and natural resources makes it particularly susceptible to extreme weather events such as floods and droughts. This vulnerability is further exacerbated by environmental degradation driven by unsustainable practices, especially for rural and ethnic communities who depend on NTFPs and lack economic safety nets. Recognising this growing exposure, the country's 2025 National Adaptation Plan places adaptation at the centre of national planning and emphasises the need for integrated, ecosystem-based approaches to address interconnected risks across sectors.

In this context, the project focuses on the Northern Highlands of Lao PDR within the Lower Mekong Basin (LMB), a transboundary watershed of critical ecological and hydrological importance. As the largest landlocked country in the basin, Laos plays a central role in maintaining the integrity of these systems. The Northern Highlands, particularly Oudomxay, Phongsaly, and Xiengkhouang Provinces, serve as key water catchments and regulators, sustaining river flows and water volumes for the Mekong River, especially during the dry season (see the ProDoc's Annex 21 for detail landscape profiles).

A.1 Climate Change Threats

Country-level threats

Laos is among countries most vulnerable to projected climate change trends because its population faces significant climate-related hazards exacerbated by poverty, malnutrition, and high exposure of poor and marginalized communities to hazards. Among the highly vulnerable regions in Laos is the Northern Highlands of the country. Lao PDR is also highly exposed because much of its population and productive land are concentrated along the Mekong River and its tributaries, where floods, droughts and seasonal water variability can have wide-reaching effects.

The Earthmap (2024)^{[8]⁹} – **Figure 1** below – recorded that climate in Laos, based on regression analysis, shows significant changes, with the average annual temperature increasing at a rate of approximately 0.076°C/year over the past 30 years, with maximum and minimum temperatures rising by 0.091°C/year and 0.056°C/year respectively from 1994 to 2024. Meanwhile, during the same period, rainfall increased by around 5.87 mm/year, although the number of rainy days decreased by more than 30% over the last 10 years^{[9]¹⁰}. According to the government report^{[10]¹¹}, the total number of rainy days with over 2.5 cm of rainfall per day were as follows: 139 days between 1976–1985, 101 days between 1985–1995, and 100 days between 1995–2005. Similarly, the total number of rainy days with over 5 cm

of rainfall per day were: 15 days between 1976–1985, 16 days between 1985–1995, and only 3 days between 1995–2005. This points not simply to a change in total rainfall, but to a change in rainfall distribution and intensity, with fewer rainy days and heavier rainfall concentrated into shorter periods.

This pattern is important because it increases the likelihood of flash flooding, runoff, erosion and landslides, while also reducing infiltration and soil moisture retention. It also means that agricultural systems become more exposed to drought between rainfall events, even where annual rainfall does not decline sharply.

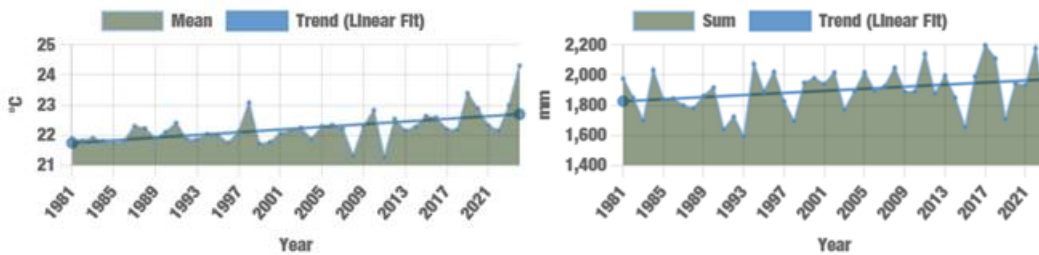


Figure 1. The average annual temperature^{[11]¹² and rainfall^{[12]¹³ in Lao PDR from 1981-2023}}

Specifically, the most noticeable impacts of climate change include shifts in rainfall patterns, seasonal changes, and increased intensity of rainfall affecting surface water flow, causing landslides, and increased intensity of floods, storms, and droughts. Precipitation has shown an increasing trend, rising from 1,825.4mm per year in 1982 to an estimated 1,970.5 mm per year in 2023 (linear estimate), as illustrated in Figure 1. High rainfall occurs in central and southern regions, with annual and seasonal rainfall reaching 2,600 mm and 2,400 mm respectively. Conversely, other areas such as Oudomxay and Phongsaly experience drought or rainfall deficits. These changes indicate that local communities nationwide face various climate hazards, especially floods and droughts.

Furthermore, according to the government report^{[13]¹⁴, the onset of the rainy season, which normally occurred in early May before the year 2000, has shifted to June after 2000. Over the past 42 years, the delay in the onset of rain has ranged between 0 and 5.67 days per year in the southern and northeastern regions, while other regions have experienced an earlier onset of rain by 5.67 to 11.33 days per year.^{[14]¹⁵ In northern Laos, rainfall typically starts between March 21 and April 5, with progressively later rainfalls observed as one moves southward. Similarly, the end of the rainy season occurs from late August to mid-September in the north and extends to October 30 in the southern regions. The change in pattern is also seen in the length growth period (LGP)^{[15]¹⁶; during the same period (the last 42 years), changes in LGP are as follows: (i) the central region has seen an increase of 0 to 17 days per year; (ii) in the southwest, the LGP has decreased by 0 to 5.67 days per year; and (iii) in the northern region, it has decreased by 0 to 11.33 days per year, despite having a longer overall LGP.^{[16]¹⁷}}}}

Climate hazards such as **storms, floods, and droughts** have increasingly occurred in Laos with growing frequency, magnitude, and impact[17]¹⁸. Additionally, **heatwaves** are expected to become serious future hazards as temperatures rise. Floods are the most frequent type of disaster. EM-DAT (2024)[18]¹⁹ data shows that floods are the most common natural disaster in Lao PDR, occurring almost annually, considering the geographical location downstream of the Mekong River (56.78% - 21 events over 30 years), affecting a total of 194,000 people with the largest total loss reaching USD 61 million. Droughts and storms are also potential major disasters, with 1.5 million people affected by these events, 226,000 people impacted, and total losses reaching USD 302 million.[19]²⁰ In terms of casualties, a total of 56 lives were lost during these events, with more than half caused by floods.[20]²¹ This large impact is significant as more than 50% of Lao PDR’s population lives in lowland and floodplain areas along the Mekong River and its main tributaries. Furthermore, the assessment of 189 villages in 8 districts showed that the climate vulnerability level in Laos, as reported by UN Habitat (2021)[21]²², indicates that drought is the main disaster affecting at least 25% of the population, followed by floods (20%), impacting 2.85 million people in nearly 4,000 villages nationwide. High vulnerability areas are mainly in the North.[22]²³ These disasters have severely impacted local livelihoods and environment through droughts and floods that lead to crop failure or damage, reducing harvest yields and resulting in income loss for farmers, as agriculture is the primary livelihood for many communities.[23]²⁴ Additionally, floods pose public health risks, often causing outbreaks of diseases like diarrhea.[24]²⁵ In ecosystems, flash floods result in biodiversity loss, including forest destruction, especially when accompanied by landslides.[25]²⁶

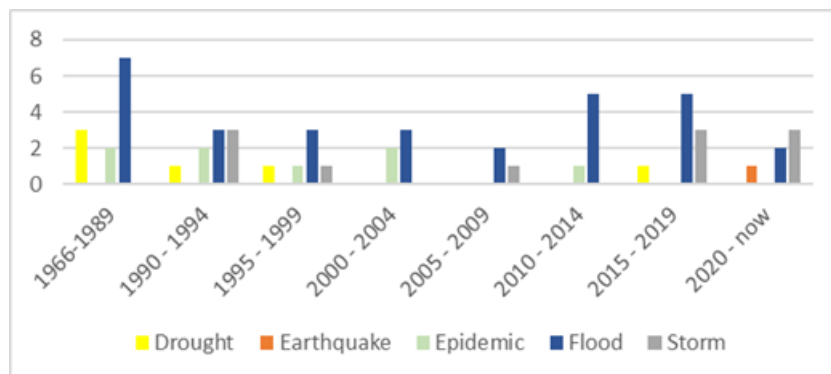


Figure 2. The Disaster Events in Laos PDR, EM-DAT (2024)

In terms of resilience, the levels vary across the country, with the northern region, where the project's geography is located, tends to have moderate to **low resilience**. This situation is due to several factors: (1) its isolation with limited accessibility; (2) the predominance of single-source livelihoods, primarily farming; and (3) low levels of education.^{[26]²⁷} In terms of crops, rice is the most affected crop by climate change, especially the majority of rice fields in Laos rely on rain-fed agriculture, meaning harvest yields are determined by rainfall.^{[27]²⁸} According to the TNC 2024 report^{[28]²⁹}, the impact of climate change on temperature and rainfall patterns could reduce local rice yields by approximately 5–20%. These conditions leave the population particularly vulnerable when disasters strike, leading to significant impacts such as the loss of household livelihoods due to the destruction of rice fields, crop failures, loss of farming equipment, and the devastation of roads, buildings, and homes. For example, following Typhoon Haima in 2011 and the floods of 2018, it was estimated that 14.2% of the population in Laos faced food insecurity related to the disasters, and 70% of households had to take on additional debt to secure their agricultural production.^{[29]³⁰} Furthermore, according to a report by the World Bank, the 2018 floods caused by heavy rains from two tropical cyclones resulted in damages estimated at USD 371.5 million, which accounted for about 2.1% of the country's GDP that year.^{[30]³¹} The floods also displaced over 600,000 people and caused extensive damage to farms, infrastructure, and housing, further resulting in recovery costs of around USD 520 million.^{[31]³²} Similarly, in 2020, tropical storms caused an additional USD 100 million in damages, further underscoring the growing toll of climate-induced disasters on Laos' economy.^{[32]³³}

Furthermore, the low resilience is accompanied by a **high level of vulnerability** and a **limited capacity** to implement adaptation solutions. Based on the ND-GAIN index, composed of a vulnerability score and a readiness score, Laos ranks 121 out of 185 countries with vulnerability score of 0.460 and readiness score of 0.336 (117 in terms of 'vulnerability' and 136 in terms of 'readiness' (the country's ability to mobilise investments for adaptation actions)).^{[33]³⁴} The high vulnerability score and low readiness score signify the country's low adaptive capacity, and is lacking the ability to leverage investments and innovations to implement adaptation actions. Similarly, the 2019's INFORM Risk Index^{[34]³⁵} (a composite index measuring hazard and exposure, vulnerability and coping capacity) ranks Laos 69th out of 191 countries. This score reflects the relatively high hazard exposure and vulnerability, alongside a lack of capacity to cope with climate hazards. As previously mentioned, floods are among the most frequent hazards in Laos. The INFORM Risk Index ranks Laos the 6th in terms of flood exposure, which signifies that this country has a high level of exposure to flood disasters, ranking 6th out of 191 countries, based on the total average population affected by floods annually.^{[35]³⁶} And although drought exposure is low, it must be monitored as hydropower development on the Mekong River significantly alters the region's hydrology. Generally, the highest vulnerabilities occur in the agricultural sector (particularly cereal crops) and the medical sector. At the same time, Laos's readiness to leverage adaptation investments is generally supported by relatively accountable governance, a significantly

improving education sector, and innovation (e.g., R&D patents). This indicates that the country has the appropriate enabling conditions to build resilience to climate change.

Climate threats in the project landscapes

The Lower Mekong Basin (LMB) is a vast area where Laos faces severe impacts from climate change. In July 2019, water levels in the Mekong River hit record lows, with flow reduced by 70%-75% compared to 2018, affecting over 68 million people across four countries. This situation was caused by a combination of prolonged drought and dam operations. Reduced rainfall due to climate change exacerbated the situation, while large upstream dams in China (e.g., Xiaowan, Nuozhadu) and Laos restricted natural wet-season flow to store water for hydropower, further reducing downstream water levels.^{[36]³⁷,^[37]³⁸ Furthermore, irregular flooding has led to a 60% decline in fish catch, reduced agricultural output in 200,000 hectares of rice fields, and negatively impacted communities, particularly in the service sector which is 10% of Laos PDR's GDP. The Northern Highlands in Lao PDR is crucial for maintaining the Mekong River's water volume. This is also the reason why the GoL prioritizes enhancing resilience in these vulnerable regions, which include investment to protect and improve the management of important conservation areas within these northern regions.}

At the same time, this region is highly vulnerable to climate change due to a combination of physical, socio-economic and environmental factors. First, its **mountainous topography**, characterised by steep slopes and fragile soils, makes it inherently prone to erosion and landslides under conditions of intense rainfall. Second, local communities are heavily **dependent on subsistence and traditional agriculture**, particularly rainfed systems such as upland rice, which are highly sensitive to rainfall variability and drought. Third, the region is increasingly experiencing **environmental degradation** linked to land-use change and development pressures, including agricultural expansion and infrastructure development, which affect soil stability, water quality, sediment loads and ecological integrity. These dynamics create a situation in which the same landscapes that are essential for regulating hydrological systems are also highly exposed to climate hazards.

The geographical diversity of Northern Lao PDR, with its combination of mountainous terrain, river valleys and low-lying areas, further contributes to its climate vulnerability. Low-lying areas along river systems are prone to flooding, while upland areas are increasingly exposed to drought and soil degradation. These areas are often densely populated and central to agricultural production, making them particularly sensitive to changing rainfall patterns, rising temperatures, increased evaporation and water stress. As a result, climate hazards in the region are not uniform, but vary across landscapes, often interacting in ways that amplify overall risk.

(i) Phongsaly Province and Boun Neua District^[38]³⁹

Phongsaly Province is exposed to multiple climate hazards, primarily storms, floods and landslides. Between 2019 and 2020, 44% of households were affected by one or more natural disasters, with approximately 30% reporting drought impacts and 70% reporting pest outbreaks. These hazards have historically caused widespread damage to infrastructure, agricultural land, irrigation systems, water sources and public services, including schools and health facilities. Reported damages from severe weather events in 2018 totalled approximately LAK 41 billion (USD 1.8 million), although actual losses are likely higher due to underreporting.

Boun Neua District, located in the northernmost part of Lao PDR, exemplifies these risks. Communities in the district have long experienced climate-related shocks, but there is increasing evidence that both the frequency and intensity of these events are rising. Local observations of erratic rainfall, prolonged drought and periodic flooding are now supported by documented large-scale events. In September 2024, Typhoon Yagi caused severe flooding and landslides across Phongsaly and other northern provinces, affecting an estimated 200,000 people nationwide.

In addition to excessive rainfall, Boun Neua faces recurring drought, particularly in upland areas that depend on rainfall for agriculture. These conditions reduce crop yields and threaten food security. The combination of steep terrain, deforestation and intense rainfall further increases the risk of landslides. Communities also report frequent wildfires in the dry season and periodic insect outbreaks that damage crops. These overlapping hazards demonstrate that climate risks in Boun Neua are not isolated or occasional, but form a pattern of persistent and compounding stress on both livelihoods and ecosystems.

(ii) Oudomxay Province and Lah District^{[39]⁴⁰}

Oudomxay Province faces a similarly complex climate risk profile, with storms, floods and drought as the primary hazards. During the period 2019–2020, approximately 72% of households were affected by natural disasters. Severe events between 2017 and 2019 resulted in estimated damages of around LAK 359 billion (USD 16 million), with significant losses in private buildings, infrastructure, energy systems and agriculture. Stakeholders consistently report that drought can be as severe as, or more severe than, flooding, reflecting growing pressure on water availability and agricultural systems.

Lah District mirrors these provincial dynamics. Communities have a long history of exposure to climate shocks, but recent evidence indicates that these shocks are becoming more frequent and more intense. As in Phongsaly, local accounts of erratic rainfall and climate variability are supported by documented events. Typhoon Yagi in September 2024 caused flooding and landslides in Oudomxay, further highlighting the scale of risk. Indeed, Lah District is particularly vulnerable to flooding from intense monsoon rainfall, as well as recurrent drought in upland areas. These conditions reduce agricultural productivity and threaten food security. The district's steep terrain, combined with deforestation and soil degradation, increases susceptibility to landslides. Wildfires during the dry season and pest outbreaks further compound these risks. Together, these hazards illustrate a

landscape under increasing climate stress, where environmental degradation and climate variability interact to undermine resilience.

(iii) Xiengkhouang Province and Pha Xai District^[40]⁴¹

Xiengkhouang Province is exposed to a range of climate hazards, particularly storms and floods, which have caused extensive damage to infrastructure and livelihoods. Between 2015 and 2019, severe weather events resulted in estimated damages of approximately LAK 100 billion (USD 4.5 million), with around 70% of losses affecting public infrastructure and 18% affecting agriculture. In addition to these hazards, there is growing concern over the increasing frequency and severity of droughts during the dry season. These droughts have been observed to damage dry-season crops such as vegetables, reduce water availability and increase pressure on already vulnerable rural livelihoods. Additionally, Pha Xai District has experienced a series of significant climate-related disasters over the past decade, reflecting broader trends across northern Lao PDR. The most recent major event occurred in 2025, when intense and prolonged rainfall associated with Tropical Depression Wipha caused widespread flooding and landslides across several provinces. On 23 July 2025, the United Nations Satellite Centre (UNOSAT) reported extensive flooding in Pha Xai and neighbouring districts, with submerged agricultural land, damaged infrastructure and emergency warnings issued to residents. In September 2024, Typhoon Yagi also affected the district, causing significant damage to infrastructure and agricultural systems.

Although detailed drought data at district level are limited, Xiengkhouang Province is recognised as highly vulnerable to drought. Reports from international organisations indicate that northern Lao PDR is experiencing longer and more intense dry seasons, which threaten agricultural productivity, particularly for smallholder farmers reliant on rainfed systems. Limited access to irrigation and drought-resilient crop varieties further exacerbates this vulnerability. The mountainous terrain of Pha Xai also makes it inherently susceptible to landslides, a risk that is significantly heightened during periods of intense rainfall. During July–August 2025, authorities issued warnings for flash floods and landslides across the district and surrounding areas, highlighting the ongoing exposure of communities in steep upland environments.

Taken together, the climate hazards observed across the three target provinces demonstrate that northern Lao PDR is experiencing multiple, interacting climate risks that are already affecting livelihoods, infrastructure and ecosystems. These risks are not isolated events, but part of a broader pattern of increasing climate variability and intensification of extreme weather across the Northern Highlands.

Future climate change projections

Lao PDR is projected to experience significant temperature increases over the period 2021–2050. According to the country's [Third National Communication \(2024\)](#), under the RCP 4.5 scenario, the average maximum temperature is expected to rise by 0.98°C to 1.35°C by 2050, with the northern regions facing greater warming compared to the south.

Key provinces like Phongsaly, Luang Namtha, and Bokeo are forecast to see a minimum temperature increase ranging from 1.05°C to 1.4°C during the same period. Meanwhile, under the more extreme RCP 8.5 scenario, temperature increases are even more pronounced. The average maximum temperature is projected to rise by 1.2°C to 1.6°C between 2021 and 2050, with the northern province of Phongsaly expected to experience the largest temperature increases. Minimum temperatures in northern provinces, such as Phongsaly and Oudomxay are projected to increase by 2.0°C to 2.5°C; while in the southern regions, including Saravan and Xekong, the rise in minimum temperatures is expected to range from 1.2°C to 1.5°C. This is consistent with the results of climate vulnerability analysis conducted by the Department of Disaster Management and Climate Change, MoNRE in 2016^[41]^[42].

According to MoNRE's 2016 report^[42]^[43], seasonal rainfall projections using historical data from 1975-2005 indicate that, based on RCP4.5 in the short term (2021-2050), rainfall will be very low during the dry season (January to May, with rainfall less than 500 mm), but higher rainfall (more than 1,000 mm) will occur during the rainy season (June to September). However, this report also indicates that an anomaly is observed under the RCP8.5 scenario, where annual rainfall in seven northern provinces of Laos, including Phongsaly and Oudomxay, will be lower (below 1,500 mm per year). This suggests changes in rainfall, especially during the rainy and dry seasons. The report also estimates that during 2021-2050, rainfall is expected to decrease from February to May under the RCP4.5 scenario, with projections showing a decrease in annual rainfall ranging from 5%–14%. Rainfall will change or slightly increase from June to September but may sharply increase by 11%–46% from July to December. In the long term, no information is currently able to identify the best model. However, the World Bank (WB) and Asian Development Bank (ADB) reported in 2021 that annual rainfall projections for the period 2080–2099 range from -27% to +41%. Although this information does not yet provide statistically certainty in projections, it indicates the persistence of extreme conditions in regions of Laos, particularly in Phongsaly and Oudomxay provinces in the north^[43]^[44]. Furthermore, modelling results for a temperature increase of up to 3°C indicate a 27% change in seasonal temperatures and a 41% increase in seasonal rainfall.^[44]^[45] Additionally, the increase in rainfall begins in early April, peaks from mid-July to mid-August, and returns to the dry season by mid-September.^[45]^[46]

These climate trends point to an uncertain future that may unfold through several reinforcing pathways:

One likely trajectory is characterised by more frequent and intense rainfall events during the wet season, resulting in flash floods, soil erosion, landslides, infrastructure damage, siltation of waterways, and widespread crop losses across steep watershed landscapes.

A second trajectory involves longer and hotter dry seasons, particularly affecting upland and rainfed systems, reducing water availability, lowering agricultural yields, stressing forest ecosystems, and increasing wildfire risk and food insecurity.

A third pathway emerges where climate extremes interact with already degraded ecosystems, so that even moderate shocks lead to disproportionate impacts, as forests lose their capacity to regulate water flows, soils lose moisture retention, and slopes become increasingly unstable.

A fourth pathway is socio-economic, whereby intensifying climate pressures, combined with market-driven expansion of monocultures and dependence on climate-sensitive livelihoods, push communities toward short-term coping strategies such as forest clearance, over-extraction of resources, and expansion into marginal lands, further reinforcing cycles of degradation and vulnerability.

In general, climate change will significantly affect the economic sector, where over 80% of rice production will be disrupted, given that rain-fed planting patterns in Laos depend on climate (rainfall duration and intensity). The impact of climate change on temperature and rainfall patterns could reduce local rice yields by around 5%–20% (approximately 0.62 million tons) by the 2040s, with losses typically greater under higher emission pathways^{[46]⁴⁷}. The further impact of climate change on agricultural production extends to its effect on the health and productivity of the labour force. Dunne et al. (2013) indicated that global labour productivity during peak months has decreased by 10% due to warming, and a decrease of up to 20% is expected by the mid-century under the highest emission pathway (RCP8.5). Combined, these processes are likely to have a significant impact on national food consumption patterns, both through direct effects on internal agricultural operations and through impacts on global supply chains, threatening the livelihoods of the Lao people.

In this context, climate change cannot be understood as a stand-alone hazard, but rather as **a systemic risk multiplier** that interacts with and intensifies existing **environmental, socio-economic, and institutional vulnerabilities**. It exacerbates ecological degradation, deepens poverty and livelihood insecurity, and places additional strain on already constrained service delivery systems and fragile market structures. As such, the climate risk profile in northern Lao PDR is defined not only by increasing floods or droughts, but by the compounding effects of these hazards on weakened ecosystem functions and vulnerable communities. A critical implication of these dynamics is the progressive erosion of resilience within watershed systems that underpin both ecological stability and local livelihoods. As forest cover declines, soils degrade, and hydrological regulation weakens, these landscapes become less able to buffer climate variability and extremes. This increases exposure to floods, droughts, and landslides, while simultaneously reducing the capacity of communities, particularly poor and marginalised groups, to anticipate, absorb, and recover from shocks.

The proposed project therefore addresses climate risk as a systemic challenge, characterised by the potential breakdown in the relationship between ecosystems and livelihoods. Declining ecosystem integrity reduces adaptive capacity, while increasing climate stress further reinforces and accelerates this degradation, creating a self-reinforcing cycle of vulnerability.

A.2. Underlying drivers

The climate threats described above are not happening in isolation. They are being driven and amplified by deeper structural changes in land use, livelihoods, institutions and markets. At the national level, Laos has already experienced long-term forest loss and land degradation, and these trends are closely linked to how people use land, how markets shape production choices, and how weak institutional systems struggle to keep pace with change. Forest cover has declined significantly over time, with national inventory data showing a

drop from 70% in 1940 to 41.5% in 2002, and then from 60.2% in 2005 to 58% in 2015. This matters because forests are not simply a land cover class; they are a key component of the country’s climate resilience system. They regulate runoff, retain moisture, stabilise slopes, reduce erosion, moderate local temperatures, and protect watersheds against the impacts of extreme rainfall and drought. As forest systems weaken, climate risk increases, particularly in upland and watershed areas where ecological stability is closely linked to hydrological function.

- Driver 1: Environmental degradation and land-use change

This country-wide pattern is clearly reflected in the northern provinces and target districts, where land-use change, agricultural expansion, and resource extraction are placing increasing pressure on forest ecosystems and watershed integrity. These dynamics are not uniform, but vary across locations depending on topography, access, market linkages, and socio-economic conditions. However, across all three target districts, the underlying trend is one of increasing pressure on natural systems, driven by a combination of subsistence needs, commercial incentives and limited availability of sustainable alternatives.

The specific drivers of degradation and land-use change within each of the target districts (Phaxay, Lah and Boun Neua) are summarised in detail in **Table 1** below, which highlights how national-level drivers manifest differently at the local level. These include deforestation linked to agricultural expansion, shifts in traditional land-use practices, increasing pressure from commercial production systems, infrastructure development, and the interaction of these processes with erosion-prone landscapes and climate variability.

Table 1: Drivers of Change within each target District.

Driver	Phaxay District	Lah District	Boun Neua District
1a. Deforestation and land use change	The expansion of agriculture is the most significant factor leading to deforestation. Research has shown that household-level decisions regarding land cover change are influenced by a complex interplay of factors, including ethnicity, physical access (distance to forests and roads), and institutional support (access to credit and agricultural extension services).	La District is undergoing a rapid and widespread transformation of its landscape, characterized by significant deforestation and a fundamental shift in land use. Over the past two decades, from 2001 to 2024, the district has lost approximately 36,900 hectares of its forest, which represents a 27% reduction in its tree cover since the year 2000.	Boun Neua District, has experienced significant forest loss. The primary drivers of this deforestation are the conversion of forest land for agriculture, both for subsistence and commercial purposes.
1b. Shifting cultivation	Slash-and-burn cultivation has been practiced for generations and remains a primary livelihood strategy, particularly for upland ethnic groups like the Hmong. While a historically adapted system, increasing population pressure and shortening fallow cycles can lead to forest degradation and reduced soil fertility.	The historical practice of rotational swidden (slash-and-burn) agriculture, which involved long fallow periods that allowed forests to regenerate, has been almost entirely replaced by permanent monoculture farming. This shift has been fueled by strong market demand from neighboring countries, leading to the widespread cultivation of maize, cassava, and rubber.	Between 2002 and 2024, Boun Neua lost 27,5000 hectares (27.5 kha) of its humid primary forest to shifting cultivation. This represents a staggering 24.6% reduction of these irreplaceable forests in just 22 years. This indicates that the most mature, biodiverse, and carbon-rich areas are being disproportionately affected.
2a. Agricultural	The expansion of commercial agriculture is a powerful driver of land use change. The cultivation of maize as a cash crop has	The district's naturally poor and acidic Acrisol soils are quickly exhausted by nutrient-hungry crops like maize,	More significantly, the expansion of commercial agriculture, such as rubber and cardamom plantations,

expansion and intensification	become widespread. Furthermore, there has been a significant increase in livestock farming, particularly cattle and pigs. This has led to a substantial portion of agricultural land in the province—reportedly as much as 50%—being converted to or utilized as pasture, both natural and improved.	forcing farmers to abandon degraded plots and clear new forest areas to maintain their yields and income.	has become a major contributor to deforestation in the district.
2b. Infrastructure development and land concessions	While specific data for Phaxay is limited, provincial-level data for Xiengkhouang reveals significant pressure from large-scale investments. An alarming 47% of the province's total land area has been granted for mineral prospecting and exploration of concessions.	Land degradation is being accelerated by contributing factors such as road development, which opens previously inaccessible forest lands to cultivation, and recent economic pressures that compel rural households to rely more heavily on immediate returns from land conversion and resource extraction.	The development of infrastructure in Boun Nuea, such as new roads, accelerates land use change by opening previously remote forested areas to settlement and commercial exploitation.
3a. Erosion-prone zones	Sloped lands that lack adequate ground cover, particularly those under monoculture farming or intensive grazing, experience severe soil erosion during the heavy rains of the wet season. Impacts of runoff subsequently degrades water quality and reduces agricultural productivity in downstream areas across the district.	La District lies within deeply dissected mountainous terrain, where slopes frequently exceed 30°—naturally predisposing the landscape to persistent soil erosion. This intrinsic susceptibility is magnified in areas where forests have been removed for shifting cultivation or infrastructural works (leaving bare slopes exposed to surface runoff).	The district's mountainous terrain, with its predominantly steep slopes, creates a high natural susceptibility to soil erosion. This risk is severely exacerbated in areas where forest cover has been removed for agriculture. This erosion leads to a decline in agricultural productivity, as fertile soil is washed away.
3b. Soil degradation and climate-related hazards	Repeated burning and cultivation on willow soils diminish fertility. Over the past decade, villagers throughout the district have reported increased climate variability, including rainy seasons starting earlier or later than usual and more frequent droughts, which exacerbate land degradation. The villages near rivers also experience periodic floods. Wildfires also remain a common hazard during the dry season.	During the intense rainfall season (May–October), exposed hillsides experience rapid detachment and transport of topsoil. Observational evidence and local accounts in La District report dramatic soil loss on deforested hillsides, with agricultural topsoil carried downslope or directly into streams during monsoon storms.	Wildfires are a major contributor to forest degradation in the district. Satellite data from recent years confirms a distinct fire season in the region, typically starting in late February and lasting for approximately 12 weeks. These fires, often linked to land clearing for agriculture, threatening nearby communities and infrastructure.

While the specific patterns differ between districts, they collectively illustrate a common trajectory in which environmental degradation, land-use change and climate variability reinforce one another, leading to declining ecosystem stability and increasing exposure to climate risks.

- *Driver 2: Climate-sensitive livelihoods and dependence on natural resources*

A second key driver is the structure of rural livelihoods. Agriculture remains the main livelihood for 70–80% of the population in Lao PDR, and 63.5% of households live in rural areas.^{[47]⁴⁸} More than half of farm households cultivate less than two hectares, which means that most people depend on small, marginal and highly climate-sensitive production systems. At the same time, around 80% of the population depends on forests for at least some part of their livelihoods, and 69% of farm households collect non-timber forest products for own

consumption or sale.^{[48]⁴⁹} This creates a situation in which households are highly exposed to both climate variability and ecosystem degradation.

These livelihood pressures are evident across the three provinces. In Phongsaly, limited mechanisation, low irrigation coverage and steep, erosion-prone soils make production systems particularly fragile. In Oudomxay, expansion of upland crops and plantations has increased pressure on land and water resources, while in Xiengkhouang, despite relatively higher levels of mechanisation, production systems remain highly dependent on rainfall and access to natural resources. Across all three areas, households often rely on short-term coping strategies that may provide immediate income or food security but contribute to longer-term degradation, including expansion into forest areas and intensive use of fragile soils.

- *Driver 3: Limited institutional, technical and financial capacity for EbA*

A third driver is weak institutional, technical and financial capacity to manage adaptation in a systematic and coordinated manner. Laos has established a strong policy framework for climate change, including the Climate Change Decree, the National Strategy on Climate Change and the National Adaptation Plan. However, implementation capacity at subnational level remains limited. Climate considerations are not consistently integrated into planning and budgeting processes, and EbA approaches are not yet fully operationalised across sectors. Provincial institutions face constraints in staffing, resources and coordination, and adaptation efforts remain largely project-based rather than embedded within regular government systems. The EbA-specific institutional framework is still emerging. While the Department of Environment under the Ministry of Agriculture and Environment plays a coordinating role, and the National Climate Change Committee Mechanism is being established, there is currently no dedicated structure focused specifically on the implementation and scaling of EbA. At provincial level, institutional arrangements exist but are often under-resourced and inconsistently applied, limiting their effectiveness in responding to increasing climate risks.

- *Driver 4: Market and infrastructure constraints shaping land-use decisions*

A fourth driver relates to market and infrastructure dynamics, which shape how households respond to climate and land pressures. Limited access to credit, weak market information systems, poor transport infrastructure and dependence on intermediaries constrain livelihood options and reduce incentives for sustainable land use. In Boun Neua, cross-border demand strongly influences production systems, particularly for high-value crops. In Lah, seasonal access and weak infrastructure limit market integration and reduce bargaining power. In Pha Xai, although there is potential for diversified value chains, limited processing capacity and market access restrict value addition. These conditions reinforce short-term decision-making and contribute to continued pressure on forest and land resources.

The interaction between these drivers creates a reinforcing cycle of vulnerability. Climate stress weakens natural systems; degraded ecosystems reduce livelihood security; livelihood pressures drive further land degradation; weak institutions struggle to coordinate and finance effective responses; and constrained markets limit incentives for sustainable practices. This systemic interaction underpins the climate vulnerability of northern Lao PDR and highlights the need for integrated approaches that address environmental, socio-economic and institutional dimensions simultaneously. The district-level climate vulnerability assessments presented in Annexes 21a, 21b and 21c, together with the project map in Annex E, further illustrate how climate exposure, land-use change and local vulnerability converge in the selected landscapes.

A.3. Project baseline situation and expected scenarios

Stakeholders Engagement

This project aims to address the underlying drivers above; and to do this, the project depends on a broad and diverse set of stakeholders whose coordinated engagement is essential to deliver EbA outcomes that are technically sound, socially inclusive and financially sustainable. Given the multi-sectoral nature of EbA, effective implementation requires the active participation of public institutions, private sector actors, civil society organisations, and local communities. Many of these stakeholders are already engaged in ongoing or planned initiatives in Lao PDR, providing an opportunity to leverage existing investments, strengthen synergies and enhance overall impact.

- *National and subnational government institutions*

National institutions, particularly the Ministry of Agriculture and Environment and the Department of Environment, play a central role in overall coordination, policy alignment and the development of the national EbA framework. Their leadership is critical for integrating EbA into national strategies, regulatory frameworks and cross-sector planning processes.

At subnational level, provincial and district authorities will be responsible for translating these frameworks into operational plans and actions. This includes departments responsible for agriculture, environment, forestry, finance, public works and planning. Their roles include integrating EbA into provincial development plans, coordinating across sectors, overseeing implementation, and supporting monitoring and reporting. Strengthening the capacity of these institutions is essential to ensure that EbA becomes embedded within routine governance systems rather than remaining project-dependent.

- *Civil society organisations and development partners*

Civil society organisations (CSOs) and development partners play a complementary yet critical role in supporting implementation, community engagement and capacity development. Organisations such as Save the

Children Australia, GIZ, WWF, FAO and World Vision are already active in Lao PDR in areas related to livelihoods, natural resource management and climate resilience. Within this project, CSOs will contribute through: (i) community outreach and awareness-raising on EbA practices; (ii) facilitation of participatory planning and local consultations; (iii) support for training and capacity-building activities; (iv) provision of technical expertise in areas such as agroforestry, sustainable agriculture and community-based natural resource management; and (v) engagement in citizen science and local data collection to support monitoring and adaptive management. Their involvement strengthens the project's ability to reach local communities, build trust and ensure that interventions are grounded in local knowledge and context.

- Local communities, IPLCs and conservation households

Communities, including Indigenous Peoples and Local Communities (IPLCs), are central actors in the system. These include ethnic groups such as Phou Noi, Hmong, Ew Mian, Akha and Khmou, among others. They are not only beneficiaries of the project but also key implementers and stewards of the landscapes targeted for EbA interventions. Their roles include: (i) participating in the design and implementation of EbA measures; (ii) managing and restoring forest and watershed resources; (iii) adopting climate-smart agriculture and agroforestry practices; and (iv) contributing to community-based monitoring systems. Their participation is essential because they hold the local knowledge, labour and decision-making authority that ultimately determine land-use practices and ecosystem outcomes. The project therefore places strong emphasis on ensuring that their needs, priorities and traditional knowledge are integrated into project design and implementation.

- Gender equality and social inclusion (GESI)

The need to strengthen gender equality and inclusive participation in EbA governance and implementation is well recognised in Lao PDR, particularly following the National Adaptation Plan process. However, significant gaps remain in institutional capacity, data collection and monitoring of gender-responsive outcomes. The project will therefore: (i) promote inclusive participation of women, youth and marginalised groups; (ii) strengthen institutional capacity for gender-responsive EbA planning and implementation; (iii) improve data collection and monitoring of gender-related outcomes; and ensure that benefits from EbA interventions are equitably distributed. This approach recognises that inclusive participation is not only a social objective, but also a practical requirement for effective and sustainable adaptation.

- Private sector engagement and value chain development

The private sector plays a critical role in strengthening the economic viability and scalability of EbA interventions. Businesses operating in agriculture, forestry and related sectors can provide investment, technical innovation and market access that are essential for sustaining climate-resilient livelihoods. Private sector roles in the project include: (i) strengthening agricultural and NTFP value chains; (ii) providing climate-smart agricultural services and inputs; (iii) supporting agro-tech and digital farming solutions; (iv) enabling access to finance, including microfinance and insurance; (v) contributing to monitoring and data systems through digital tools; and (v) capturing and disseminating knowledge generated through project activities. A particularly

important opportunity lies in the development of integrated value chain models. These models may involve private enterprises or consortia providing bundled services to farmers, including climate-resilient inputs, financing, advisory services, guaranteed market access and post-harvest infrastructure. Such vertically integrated approaches can reduce risks across the supply chain, increase efficiency, and improve resilience from production to market. By investing directly in the resilience of producers, private sector actors can strengthen both their own supply chains and the broader sustainability of local economies. Private sector engagement will also include participation in policy dialogue and consultation processes, particularly at provincial level, to support the integration of EbA into planning and investment frameworks.

All stakeholders will work together within a coordinated framework, with clearly defined roles and responsibilities aligned to project outputs and outcomes. Detailed stakeholder roles are outlined in the Stakeholder Engagement Plan (Annex 8 of the ProDoc), including their influence, responsibilities and contributions across different project components. By bringing together government, communities, civil society and the private sector, the project creates a platform for collective action that enhances the likelihood of achieving sustained and scalable adaptation outcomes.

Enabling conditions & baseline investments

In additions to pursuing a multi-stakeholder-based EbA approach, this project is anchored in an enabling environment for climate action that has evolved considerably in Laos over the past decade, while also responding to the remaining institutional, financial and operational gaps that continue to constrain the effective implementation and scaling of EbA. It therefore builds on existing policy commitments, institutional structures, technical knowledge and baseline investments, while seeking to strengthen the coherence, coordination and practical application of these foundations in the Northern Highlands of Laos.

(i) Policy and planning frameworks: Lao PDR has established an increasingly robust policy and regulatory basis for climate change adaptation and environmental management. At the international level, the country has ratified the UNFCCC, the Paris Agreement and the three Rio Conventions, signalling long-standing commitment to global climate and environmental objectives. At the national level, the 2019 **Decree on Climate Change** represents the country's first dedicated legal framework for climate change and provides the basis for mainstreaming adaptation and mitigation across sectors and levels of government.

This enabling environment has been strengthened further through the endorsement of the **National Adaptation Plan (NAP)** in 2025. The NAP is of particular relevance to this project because it provides a comprehensive framework for integrating adaptation into annual plans, five-year development plans and long-term strategies across nine priority sectors. Importantly, it recognises the role of ecosystem-based approaches in strengthening resilience and therefore provides a direct policy entry point for operationalising and scaling EbA interventions. This is complemented by successive National Socio-Economic Development Plans, which have progressively incorporated climate adaptation and green development objectives, as well as by sectoral strategies such as the Agriculture Development Strategy (2025–2030), which promotes increased agricultural productivity, strengthened extension services, organic farming, environmental protection and ecological balance.

(ii) Institutional architecture and governance platforms: At the institutional level, Lao PDR has put in place a core architecture for climate and environmental governance that provides an important entry point for this project. The Department of Environment under the Ministry of Agriculture and Environment serves as the national focal point for climate change coordination, supported by the updated **National Environment Committee** and the **National Climate Change Committee Mechanism** established to support implementation of the NAP. These structures create a platform for cross-sector dialogue and national-level coordination on adaptation.

At provincial level, the institutional architecture for planning and budgeting already involves the main actors needed for climate-resilient development. Provincial Departments of Agriculture and Environment, Provincial Administration and Finance Departments, Provincial Public Works and Transport Departments, forestry agencies, district planning offices and social welfare institutions all have roles in relation to environmental management, planning, budgeting, infrastructure and local implementation. District institutions, while operating as deconcentrated arms of provincial government, also play an important role as intermediaries between provincial priorities and village-level planning and execution.

However, while these institutional arrangements exist, they are not yet functioning in a sufficiently integrated manner to support effective EbA delivery. Coordination remains uneven, mandates often overlap, and key institutions responsible for environmental management and disaster-related functions are not yet consistently embedded in the core planning and budgeting discourse on climate resilience. In particular, EbA has not yet been fully operationalised as a planning and investment approach within the existing system. The project therefore benefits from the presence of institutional structures and coordination platforms, but also responds directly to the need to make them more coherent, practical and fit for purpose.

(iii) Existing capacities, knowledge and practical readiness for EbA: The project also benefits from a growing, though still incomplete, base of knowledge and institutional experience related to adaptation and EbA. The preparation of the NAP and earlier climate change initiatives has helped raise awareness of climate risks, adaptation planning and gender-responsive approaches within national and subnational institutions. Findings from the EbA Capacity Scorecard (Annex 22 of the ProDoc) indicate that while basic structures and some policy and legal frameworks for EbA are already in place, their implementation is inconsistent and significant gaps remain in operational readiness, coordination and systematic application.

At provincial level, there are useful entry points on which the project can build, as follows:

- Phongsaly has established an institutional focal arrangement for climate change through the relevant environment and climate division, though this remains constrained by limited staff, budget and equipment.
- Xiengkhouang has developed a foundation of knowledge through training on climate change adaptation, climate risk and vulnerability assessment, early warning functions and awareness-raising, but still lacks the practical tools and financial resources needed to turn this knowledge into implementation.

- Oudomxay has made progress in integrating gender dimensions into climate-related training and planning, but staff coverage and technical depth remain limited, while climate change adaptation is not yet systematically integrated into its draft provincial socio-economic planning framework.

These conditions are important enabling foundation for the project; while at the same time, they also confirm that a major gap remains between knowledge and practice. There is still a lack of operational tools, consistent methodologies, applied data systems and routine planning mechanisms through which EbA can be translated into implementable and financeable action at local level. The proposed project is therefore well positioned to convert partial readiness into more practical and durable institutional capacity.

(iv) Climate finance and subnational investment conditions: From a financing perspective, the enabling environment is also evolving but remains incomplete. There is increasing recognition in Lao PDR that adaptation requires dedicated and sustained financing, and the national government has begun to establish relevant frameworks, including work related to climate funds and green finance. The **Environmental Protection Fund**'s ongoing accreditation process with the Green Climate Fund, supported by GIZ, is one example of progress at national level. Previous initiatives, including the **LoCAL**-related experience under UNDP-GEF support, have also demonstrated the potential for integrating local climate finance into subnational planning and investment processes.

Nevertheless, climate finance remains weakly institutionalised at provincial and district levels. Planning documents often refer to climate risks at a general level but do not provide detailed, costed action plans or budgeted pathways for implementation. Budget proposals from sector departments rarely include climate risk assessments or climate-informed indicators. Provinces lack both the technical capacity and the financial credibility to access climate finance instruments independently, while public-private partnerships for climate-resilient investments remain underdeveloped. As a result, adaptation investments continue to be largely project-based, fragmented and dependent on external support.

(v) Baseline investments and complementary initiatives: The proposed project also builds on a substantial landscape of ongoing and planned investments, both GEF and non-GEF, which provide relevant lessons, institutional experience and opportunities for complementarity. These include:

- **Government's programs:** (i) MAE currently implements a project title '*Building resilience through small scale infrastructure*' during the period 2024-2027; (ii) MAE's Environment Protection Fund; (iii) MAE implements several programs related to promoting good agriculture practices (focus on maize, rice and vegetable) in Oudomxay (2023-2026).
- **GEF's projects:** (i) UNDP-led LDCF project '*Integrated Water Resource Management and Ecosystem-based Adaptation in the Xe Bang Hieng river basin and Luang Prabang city, Lao PDR*' 2022-2026 (ii) WWF-led LDCF project '*Enhancing Integrated Watershed Management and Climate Resilience for Vulnerable Communities in the Nam-Poui, Nam-Poun, Nam-Lay and Nam-Houng Basins in Lao PDR*' (at PPG stage); (iii) the Climate Smart Agriculture (CSA) Project is implemented by the World Vision in the northern provinces of Luang Prabang and Houaphanh; (iv) FAO-led LDCF project '*Climate Smart Agriculture alternatives for upland production systems in Lao PDR*'; and (v) WWF-US-led LDCF project "*Enhancing Integrated Watershed Management and Climate Resilience for Vulnerable Communities in the Nam-Poui, Nam-Poun, Nam-Lay and Nam-Houng Basins in Lao PDR*".

- **Other initiatives:** (i) GCF's funded '*Strengthening Climate resilience of Lao PDR Health System*' project (2023-onwards) implemented Save the Children Australia; (ii) GCF's funded '*Scaling up the implementation of the Lao PDR Emission Reductions Programme*' (2023-onward) implemented by GIZ; (iii) GCF's funded '*Building resilience of urban populations with ecosystem-based solutions in Lao PDR*' implemented by UNEP during the period of 2020-2025; (iv) GIZ's '*Protection and Sustainable Use of Forest Ecosystem and Biodiversity*' (ProFEB) especially in Oudomxay; (v) IFAD's '*Strategic Support for Food Security and Nutrition Project*' (2nd Phase) 2023-2030; (vi) ADAEBio 2 Project promotes the engagement of families, communities, and rural territories in pathways of sustainable socio-economic development. Phase 2 of the intervention continues the actions initiated since 2021 and expands them to new target areas in Beng, La and Xay districts, Oudomxay province.

These initiatives are significant as they demonstrate that Lao PDR has already established a growing portfolio of interventions in climate resilience, sustainable land management, community-based adaptation, and local development. They also generate valuable practical lessons on watershed management, local climate finance mechanisms, community engagement, climate-smart production systems, and institutional coordination. In this context, this project does not seek to duplicate existing efforts. Rather, it is designed to build upon these experiences and address the remaining gaps that limit the coherence, integration and scalability of current interventions. By doing so, it seeks to support a transition from fragmented and project-dependent adaptation towards a more integrated, financeable and sustainable model of ecosystem-based resilience in the Northern Highlands of Lao PDR.

However, despite these important advances, **significant barriers** (discussed in the next section) remain that constrain the effectiveness, coherence and scalability of current interventions. In particular, gaps in financing, institutional coordination, technical capacity and the integration of climate adaptation into planning and budgeting processes continue to limit impact. It is therefore important to clarify the **incremental reasoning** of the project by illustrating how GEF support will shift the system away from the baseline trajectory toward a more integrated and resilient pathway, while contributing to longer-term transformational change. The following are **three expected future scenarios**:

'BAU Scenario': In the absence of the project, the baseline is one of continued fragmentation and rising vulnerability. Climate risks will continue to intensify, but ecosystems in the target landscapes will remain under pressure from deforestation, erosion, forest fragmentation and unsustainable land use. Provincial institutions will continue to operate with limited climate tools, weak coordination and insufficient financing. Climate adaptation will remain only partially integrated into planning processes and largely disconnected from budgeting and investment decisions. At the local level, households will remain dependent on climate-sensitive farming and forest use, while market systems will continue to reward short-term extraction rather than long-term sustainability. As a result, the northern highlands will remain caught in a reinforcing cycle in which climate shocks exacerbate ecosystem degradation, degraded ecosystems increase exposure to climate hazards, and vulnerable livelihoods drive further unsustainable land-use practices.

Under this BAU trajectory, future climate risks, particularly increased drought frequency, more intense rainfall events, and rising temperatures, will amplify these pressures. Watershed systems will continue to lose their capacity to regulate water flows and stabilise slopes, increasing the likelihood of flash floods, landslides and seasonal water shortages. Agricultural productivity will become more volatile, especially for smallholder farmers reliant on rainfed systems, and food insecurity will deepen in vulnerable communities. Infrastructure damage and economic losses from extreme weather events will continue to rise, placing additional strain on

public resources. Over time, this trajectory risks locking the region into a cycle of increasing vulnerability, declining ecosystem services and reduced resilience.

'Ideal Scenario': An ideal scenario would represent a fully transformed system in which climate adaptation is comprehensively mainstreamed across all levels of governance and sectors. In this scenario, national and subnational institutions would have strong technical, financial and coordination capacity to plan and implement adaptation measures. EbA would be widely adopted across landscapes, with restored forests and well-managed watersheds providing effective natural buffers against climate extremes. Sustainable finance mechanisms would be fully operational, enabling large-scale investment in adaptation and nature-based solutions. Livelihood systems would be diversified and resilient, supported by strong value chains, market access, and inclusive participation of women and ethnic communities. Monitoring, evaluation and learning systems would be robust and harmonised, enabling continuous improvement and scaling. While this scenario represents a desirable long-term vision, it is not immediately achievable given current institutional, financial and capacity constraints.

'Realistic Scenario': A more realistic scenario lies between these two extremes and reflects what can be achieved within the current context while addressing key barriers. In this realistic pathway, climate adaptation becomes partially but meaningfully mainstreamed into national and provincial systems, supported by practical tools, policies and financing pathways. EbA is implemented at scale in priority landscapes, demonstrating tangible improvements in watershed function, slope stability, water regulation and ecosystem health. Institutional capacity is strengthened, enabling better coordination across sectors and more effective integration of climate considerations into planning and budgeting. Communities begin to transition towards more resilient livelihood systems, supported by climate-smart agriculture, agroforestry, improved value chains and access to finance. Sustainable financing mechanisms are established and tested, providing a foundation for scaling. Knowledge management and monitoring systems improve, enabling evidence-based decision-making and adaptive management.

The project is explicitly designed to achieve the 'realistic scenario', with intention to enable spill-over and scale-up to contribute to achieving the 'ideal scenario'. It does so by targeting the critical gaps that currently prevent Lao PDR from moving beyond the baseline trajectory. Through the development of a national EbA tool and the adoption of provincial EbA policies and plans, the project strengthens the institutional and planning framework needed to operationalise adaptation. By restoring and rehabilitating 5,900 hectares of watershed landscapes and supporting conservation households, it demonstrates how ecosystem restoration can directly reduce climate risks while improving livelihoods. By mobilising sustainable finance and strengthening value chains, it begins to address the economic barriers that limit the adoption of sustainable practices. By strengthening knowledge systems, monitoring and stakeholder engagement, it builds the foundation for scaling and long-term sustainability.

The project approach is therefore closely aligned with the realistic scenario. It does not attempt to achieve full system transformation within a single intervention, but instead focuses on creating the enabling conditions, practical models and institutional capacity needed to shift the system in that direction. By linking governance reform, local implementation, finance mobilisation and knowledge systems, the project creates a pathway through which the current baseline can be progressively improved. This pathway is resilient to future uncertainty because it strengthens both ecological systems and institutional capacity, allowing adaptation efforts to evolve as climate conditions change. In this sense, the project serves as a bridge between the current baseline and a

longer-term transformation. It demonstrates what is feasible under current constraints, while laying the groundwork for broader and more ambitious adaptation in the future. By doing so, it ensures that the outcomes achieved are not only immediate but also enduring, even in the face of continued changes in climate drivers and socio-economic conditions.

A.4. Barriers to addressing the drivers & project resilience

Although the need for action is clear, several barriers prevent Laos from responding effectively to the climate and environmental pressures described above. These barriers are not isolated constraints; rather, they reinforce one another and help explain why the key drivers of vulnerability (i.e., environmental degradation, climate-sensitive livelihoods, weak institutional capacity for EbA, and market and infrastructure constraints) continue to persist.

- *Barrier 1: Limited mainstreaming of EbA into planning, policy and decision-making*

The first barrier is the gap between policy recognition and practical implementation. Laos now has an increasingly strong climate policy architecture, and the 2025 National Adaptation Plan provides a clear framework for adaptation action. However, adaptation in general, and ecosystem-based adaptation in particular, is not yet consistently translated into provincial regulations, planning instruments, sector programmes, costed actions or budgeted implementation pathways. In practice, climate change is still too often treated as a cross-cutting issue that sits at the margins of planning rather than shaping core development choices. Provincial plans may refer to resilience, green growth or environmental sustainability, but they rarely contain the detailed climate-risk analysis, operational responsibilities, financing roadmaps and investment priorities needed to guide implementation.

This barrier is particularly significant because the drivers identified in Section A.2 are systemic in nature. Environmental degradation and climate-sensitive land use cannot be addressed through isolated activities alone; they require planning systems that can integrate climate risk, ecosystem function and livelihood resilience into public decision-making. Where such integration is absent, policy ambition does not translate into measurable change on the ground.

- *Barrier 2: Weak cross-sectoral coordination and limited implementation capacity*

A second barrier is limited institutional coordination and implementation capacity at national, provincial and district levels. Responsibilities for environment, agriculture, forestry, water, finance, planning and public works are spread across multiple institutions, but their coordination is inconsistent and often dependent on project-specific arrangements. Even where climate adaptation or EbA is recognised, it is not always clear which institution leads, how responsibilities are shared, or how implementation is followed through over time.

Provincial departments often face severe resource constraints, while district-level institutions may lack operational budgets, trained staff and practical authority to support multi-sector implementation.

This barrier directly reinforces the driver of limited institutional, technical and financial capacity for adaptation. It also weakens the response to environmental degradation, since degraded landscapes cannot be restored effectively if the institutions responsible for land, forests, water, agriculture and local development do not work together in a coordinated way. Because EbA depends on integrating ecological and livelihood considerations across sectors and scales, fragmented governance is particularly problematic.

- *Barrier 3: Weak climate information, monitoring and adaptive learning systems*

A third barrier is the limited availability and use of practical climate-risk information, monitoring systems and learning mechanisms to support decision-making and adaptive management. Lao PDR's climate adaptation monitoring environment remains fragmented. Different ministries and projects use separate indicators, proxy measures and donor-defined reporting frameworks, which makes it difficult to compare results, assess adaptation progress consistently, or use evidence to improve future interventions. As already noted, Phongsaly uses green growth indicators as proxies, Oudomxay relies heavily on project-specific indicators, and Xiengkhouang uses environmental monitoring data from development projects. This means that provinces do not yet have a robust and harmonised way to assess climate risks, identify priorities, track resilience outcomes or learn systematically from implementation.

This barrier affects all the main drivers of vulnerability. Without timely and locally relevant climate-risk information, environmental degradation may continue in the most vulnerable landscapes because threats are not properly identified or prioritised. Without good information and learning systems, communities and local governments cannot adapt livelihood systems effectively. Without monitoring and adaptive management, even well-designed interventions may fail to respond to changing conditions over time.

- *Barrier 4: Inadequate financing mechanisms for EbA and resilient livelihood transitions*

A fourth barrier is related to EbA financing. At provincial and district levels, climate adaptation is still not fully mainstreamed into public financial management systems, and innovative financing remains underdeveloped. Budget proposals rarely include climate-risk analysis or adaptation-sensitive indicators, and climate finance is not yet integrated into normal investment planning. Provinces often lack the technical capacity, creditworthiness and institutional arrangements needed to access climate funds or other innovative instruments directly. This limits their ability to move from planning to implementation, especially for adaptation approaches such as EbA that require coordinated investment across landscapes and sectors.

This financing barrier is particularly significant because it affects both environmental restoration and livelihood transition. Degraded watersheds cannot be restored at scale without sustained finance, and communities cannot

be expected to adopt more sustainable and climate-resilient practices if no viable financing is available to support the transition. In that sense, finance is not simply a supporting factor; it is one of the central constraints preventing a shift away from business-as-usual land use and livelihood systems.

- Barrier 5: Weak market systems and limited incentives for sustainable land use

A fifth barrier lies in market structure and the limited economic incentives for sustainable production. Smallholder farmers often cannot access affordable credit, reliable market information, quality inputs, or strong technical support for post-harvest handling, processing and quality control. Transport constraints and weak rural roads make market access difficult, especially during the rainy season. As a result, many producers depend on intermediaries and informal trade channels that offer limited bargaining power and weak rewards for sustainable production. In the target districts, these constraints reinforce short-term production decisions that can contribute to forest loss, land degradation and livelihood insecurity.

This barrier is closely linked to the drivers of climate-sensitive livelihoods and market and infrastructure constraints. If households cannot derive reliable value from sustainable land-use systems, they are more likely to continue relying on practices that degrade the resource base, even when they understand the risks. This is particularly important in landscapes where monocultures, low-value raw product sales, and weak local processing capacity lock communities into vulnerable livelihood pathways.

- Barrier 6: Limited inclusion of women, ethnic communities and local actors in adaptation processes

A sixth barrier is social exclusion and unequal participation in adaptation planning and implementation. The project area is ethnically diverse, and women often face unequal access to resources, information, finance, training and decision-making processes. If adaptation planning is not deliberately inclusive, the benefits of EbA may bypass the very communities most exposed to climate risk, including Indigenous Peoples and Local Communities, ethnic minority groups and women-headed households. This would not only create inequity; it would also weaken effectiveness, because adaptation measures are much less likely to be adopted, maintained and scaled if local actors are not genuinely engaged and able to benefit. This barrier cuts across all the drivers described earlier. Livelihoods cannot become more resilient if those managing the land lack voice, access or incentives. Restoration cannot succeed if communities are treated only as beneficiaries rather than as key actors in landscape stewardship. Governance cannot be strengthened if planning processes exclude the knowledge and priorities of those most directly affected by climate risks.

Taken together, these barriers show that the problem is not simply one of climate hazard. Rather, it is a problem of systems that are not yet organised, financed or incentivised to respond effectively to climate risk and environmental degradation. These barriers reinforce the drivers identified in Section A.2 and help explain why current adaptation efforts remain fragmented, difficult to sustain and insufficient to shift the prevailing trajectory. The project is designed to respond to these barriers in an integrated manner, but the specific approach through which it will do so is set out in Section B of this CEO-ER.

Strategic rationale for project selection and resilience

Laos is at a critical juncture where climate variability, ecosystem degradation and rural livelihood insecurity are converging in ways that threaten both development gains and long-term resilience. The proposed project has been selected to address these interlinked pressures through a systemic EbA approach (detailed in Section B) that responds directly to the drivers and barriers previously identified. Rather than addressing climate hazards, watershed degradation, livelihoods and planning constraints separately, the project combines governance reform, landscape-level EbA implementation, sustainable finance and knowledge management in a single integrated design. The project is strategically justified for three main reasons:

- First, it addresses the core adaptation challenge in northern Lao PDR: the weakening relationship between ecosystems and livelihoods in climate-vulnerable watershed landscapes. In the target districts, floods, droughts and landslides are being intensified by deforestation, soil erosion, declining watershed function and high dependence of communities on climate-sensitive agriculture and natural resources. The project therefore focuses on EbA because it strengthens the ecological foundations of resilience, including hydrological regulation, slope stability, soil retention and vegetation recovery, while linking these functions to more resilient livelihood systems.
- Second, it operationalises existing national commitments rather than creating a parallel agenda: The project is aligned with the 2019 Decree on Climate Change, the 2025 National Adaptation Plan, the National Strategy on Climate Change, the National Socio-Economic Development Plans, and the Agriculture Development Strategy 2025–2030. Its strategic value lies in helping translate these policy commitments into practical subnational action through a national EbA tool, provincial EbA regulations and plans, and strengthened institutional capacities for implementation.
- Third, it builds on existing investments while addressing the gaps that have limited previous efforts: Lao PDR already has relevant experience in climate resilience, watershed management, climate-smart agriculture, local climate finance and community-based natural resource management. However, these efforts have often remained fragmented by sector, geography or financing source. The project has therefore been selected because it connects currently separate elements (i.e., planning, restoration, livelihoods, finance and knowledge systems) into a more coherent and scalable EbA model.

The endurance of the project also derives from its alignment with Laos' broader development trajectory. The project is framed not as a parallel environmental initiative, but as a contribution to the country's priorities on sustainable agriculture, watershed protection, disaster risk reduction, climate adaptation, rural livelihoods and social inclusion. By demonstrating that biodiversity-friendly, watershed-based and community-responsive adaptation can also generate livelihood and economic benefits, the project is expected to strengthen the case for continued government and partner investment beyond the project period. Its sustainability is further reinforced by the integration of EbA into provincial planning and policy frameworks, the development of financing roadmaps, the mobilisation of conservation-linked finance, and the strengthening of local stewardship and community enterprises. This integrated approach (combining policy support, institutional strengthening, landscape restoration, finance mobilisation and livelihood incentives) makes the project well suited to deliver lasting adaptation and environmental outcomes in northern Laos and beyond. It represents not simply an incremental addition to existing activities, but a more fundamental shift towards institutionalised, financeable and landscape-based adaptation.

Nevertheless, the project objective cannot be achieved through government action alone. Its success depends on a collaborative governance model that brings together public institutions, local communities, civil society, development partners and private actors, each of whom has a distinct role in generating and sustaining adaptation benefits and global environmental benefits. This multi-stakeholder approach helps ensure that project outcomes endure because they are embedded simultaneously in governance systems, local livelihood systems, and emerging financing and market systems. In that sense, the project's resilience lies not only in its technical design, but also in the breadth of ownership and institutional anchoring that it seeks to establish. For detailed stakeholder roles and responsibilities, please refer to 'the Stakeholder Engagement Plan' Annex.

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B. PROJECT DESCRIPTION

This section asks for a theory of change as part of a joined-up description of the project as a whole. The project description is expected to cover the key elements of good project design in an integrated way. It is also expected to meet the GEF's policy requirements on gender, stakeholders, private sector, and knowledge management and learning (see section D). This section should be a narrative that reads like a joined-up story and not independent elements that answer the guiding questions contained in the guidance document. (Approximately 3-5 pages) see guidance here

A. Project Description

B.1. Project approach

The project approach is to utilise EBA as the organising framework for climate resilience in Northern Lao PDR. This is the appropriate approach because the underlying problem is not only climate hazard, but the interaction between climate hazard, degraded ecosystems, fragile livelihoods and weak institutions. Restoring forests, rehabilitating degraded watersheds and supporting agroforestry systems can help stabilise slopes, regulate water flows, improve soil moisture, reduce erosion and buffer climate extremes. At the same time, if these ecological interventions are linked to sustainable livelihoods, finance and market access, they can create a pathway for communities to benefit economically from conservation rather than being pushed away from it. This is what makes EbA more appropriate than narrower, sectoral or short-term interventions.

The project has been structured to respond directly to the barriers identified in Section A:

- 1. To address the weak mainstreaming of EbA into planning and decision-making (Barrier 1), it will strengthen governance and planning systems through the development of a national EbA tool, the adoption of provincial EbA regulations and plans, and capacity-building for government officials at national and subnational levels.**
- 2. To address fragmented coordination and limited implementation capacity (Barrier 2), it will support stronger institutional linkages across relevant sectors and scales, so that adaptation is not treated as a stand-alone environmental issue but as part of a broader development and watershed management agenda.**
- 3. To address weak climate information, monitoring and learning systems (Barrier 3), the project will strengthen the generation and use of climate-risk information, while also supporting monitoring, knowledge management, communication and stakeholder learning so that interventions can be improved over time and lessons can be shared beyond the pilot landscapes.**
- 4. To address the lack of finance for adaptation and resilient livelihood transitions (Barrier 4), the project will combine public planning tools with practical financing pathways, including support for sustainable financing mechanisms that can help communities implement and maintain EbA solutions.**
- 5. To address weak market systems and limited incentives for sustainable land use (Barrier 5), the project will support value chain development, climate-smart agriculture and agroforestry practices, and community-based enterprises that improve the economic viability of sustainable production.**
- 6. To address social exclusion and unequal participation in adaptation processes (Barrier 6), the project embeds GESI and inclusive participation throughout the design, recognising that adaptation will only be durable if women, ethnic communities and other local actors are able to shape, implement and benefit from it.**

The project therefore combines three interlinked approaches:

- First, it strengthens governance and planning through a national EbA tool, provincial EbA regulations and plans, and capacity-building for government officials at national and subnational levels.**

- Second, it supports local implementation through improved management of 900 hectares protected areas, as well as restoration and rehabilitation of 5,000 hectares, support to conservation households, sustainable financing, value chain development, and climate-smart community enterprises.
- Third, it strengthens learning, monitoring, communication and inclusion so that the project's lessons are captured and used beyond the pilot areas. These approaches are mutually reinforcing and are intended to create a coherent pathway from policy to practice, to scale.

Theory of Change

The project aims to break the cycle of vulnerability in Northern Laos, where climate variability and anthropogenic pressures interact to degrade terrestrial ecosystems, weaken watershed functions, and undermine the resilience of communities and local economies. These dynamics reduce the ability of ecosystems to buffer floods, droughts, and landslides, while simultaneously limiting livelihood options for communities that depend on climate-sensitive natural resources. To address this, the project promotes a systemic EbA approach that integrates ecosystem restoration, climate-resilient livelihoods, governance strengthening, and sustainable financing. By combining these elements, the project seeks to restore key watershed ecosystems, strengthen ecosystem services, and create sustainable livelihood pathways that reinforce long-term resilience. The approach is designed to demonstrate a replicable model aligned with Lao PDR's National Adaptation Plan (2025).

The Theory of Change is based on three interlinked causal pathways:

Causal pathway 1: Strengthening institutional frameworks and capacities for EbA integration

This pathway operates under the assumption that if national and subnational institutions are equipped with appropriate tools, policies, and capacities to integrate EbA into planning and decision-making, then climate adaptation can be implemented in a more coordinated, evidence-based, and sustainable manner. In this regard, the project will establish a national EbA decision-support tool and support the adoption of provincial EbA policies and plans with financing roadmaps in three target provinces. These interventions will strengthen coordination across sectors and improve institutional capacity to design and implement EbA solutions. As a result, national and subnational systems will be better positioned to mobilise resources and integrate EbA into development planning, contributing to improved resilience for an estimated 800,000 indirect beneficiaries.

Causal pathway 2: Advancing EbA implementation and sustainable livelihoods at landscape level

Causal pathway 2 assumes that if EbA interventions are implemented at landscape scale and linked to viable livelihood systems, then ecosystem management-restoration-rehabilitation and community resilience can be mutually reinforced. Here, the project will support the improved management of 900 ha protected areas, as well as restoration and rehabilitation of at least 5,000 hectares of watershed areas. Through the integration of climate-smart agriculture, agroforestry, and sustainable land management practices, the project will improve ecosystem functions such as water regulation, soil stability, and biodiversity conservation. By linking these interventions to sustainable value chains, enterprise development, and financing mechanisms, the project will enable participating households to achieve at least a 20% increase in income, while mobilising approximately USD 200,000 in sustainable finance. This pathway addresses both environmental and socio-economic drivers of vulnerability, ensuring that restoration efforts are sustained through improved livelihoods and economic incentives.

Causal pathway 3: Strengthening knowledge systems, awareness, and adaptive management

Under this pathway, the project assumes that if stakeholders have access to knowledge, monitoring systems, and inclusive platforms for learning and collaboration, then EbA implementation can be continuously improved, scaled, and sustained. Here, the project will strengthen knowledge management, stakeholder engagement, and monitoring systems to support adaptive management and learning. This includes increasing public awareness of EbA, developing knowledge products and platforms, and establishing community-based monitoring systems. These efforts will enhance the capacity of stakeholders to design, implement, and refine EbA solutions, while ensuring inclusive participation of women, ethnic communities, and vulnerable groups. Through these mechanisms, the

project will generate and disseminate lessons and best practices, contributing to broader replication and informing future adaptation policies and investments in Lao PDR.

Transformation levers: The project's Theory of Change and causal pathways are based on the premise that climate vulnerability in northern Lao PDR can be reduced through the integrated application of EbA that simultaneously strengthens ecosystems, livelihoods, and governance systems. By addressing the interacting drivers of climate risk, ecosystem degradation, and limited adaptive capacity, the project aims to deliver transformative change across watershed landscapes. To achieve this, the project applies key transformation levers, including: (i) policy and institutional strengthening, (ii) multi-sectoral coordination, (iii) financial leverage, (iv) innovation, and (v) knowledge and learning systems. These levers are operationalised through three mutually reinforcing components.

Component 1 strengthens the enabling environment by establishing a national EbA decision-support tool, supporting the adoption of provincial EbA policies and plans, and enhancing institutional capacities to integrate climate risk and ecosystem considerations into planning and budgeting processes.

Component 2 operationalises EbA at landscape level through the improved management of 900 hectares protected areas, as well as restoration and rehabilitation of at least 5,000 hectares of watershed areas. In doing so, it will engage 2,500 conservation households, and ensure promotion of climate-resilient livelihoods. By linking ecosystem restoration with value chains, community enterprises, and catalytic financing (targeting at least USD 200,000), the project aligns environmental outcomes with economic incentives.

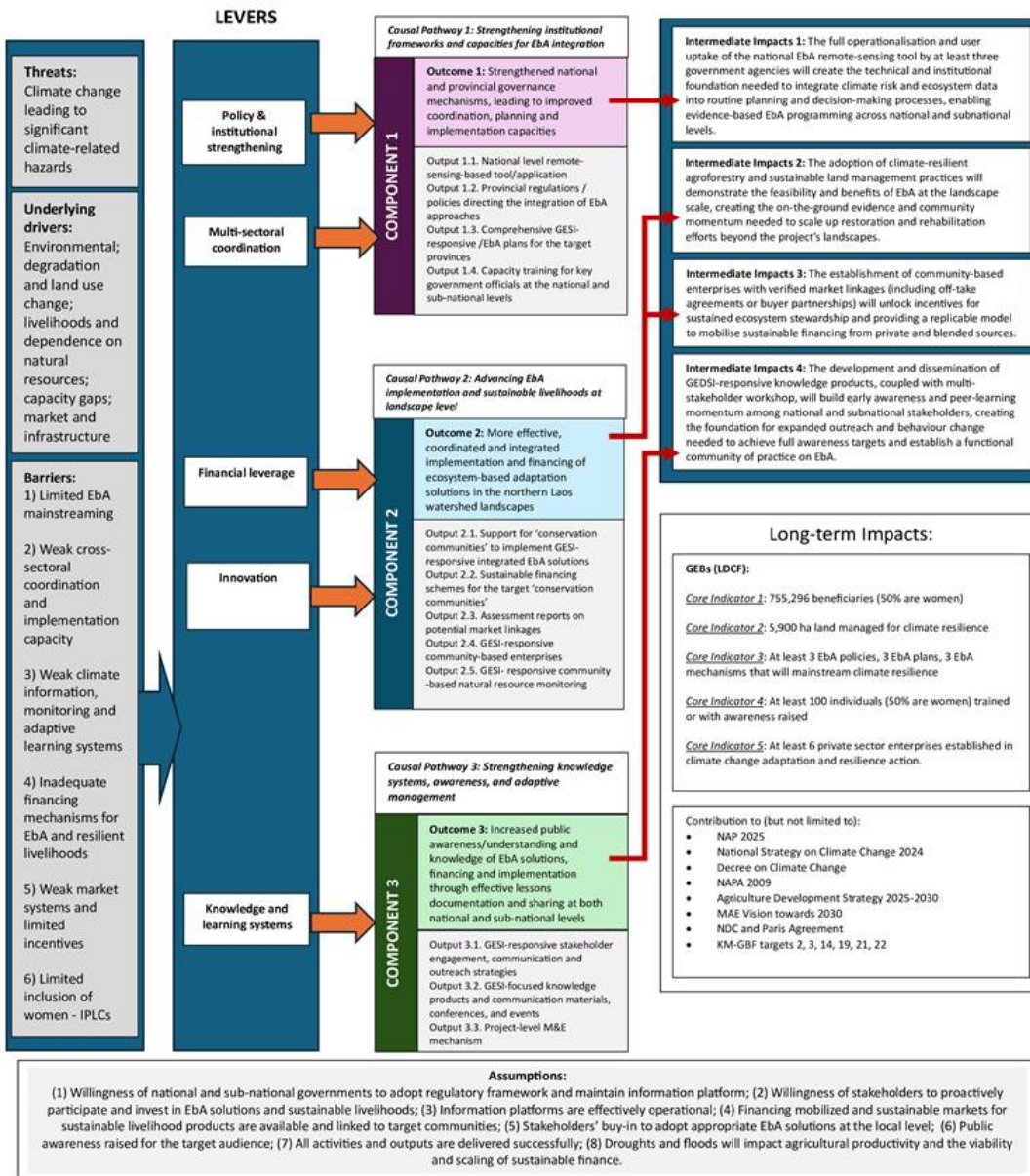
Component 3 strengthens knowledge management, stakeholder engagement, monitoring, and safeguards to support adaptive management, inclusive participation, and long-term sustainability of EbA interventions.

The project recognises key assumptions, including government commitment to EbA integration, stakeholder participation, and the availability of markets and financing. It also accounts for external risks, such as climate variability and market fluctuations, through adaptive management and community-based monitoring systems. The following Figure 3 captures the project's detail ToC.

By combining governance reform, practical implementation, financing mechanisms, and knowledge systems, the project establishes the institutional and financial conditions required for sustained EbA delivery. This integrated approach enables scaling through mainstreaming into provincial planning systems, replication of enterprise and financing models, and dissemination of knowledge and lessons learned. In doing so, the project supports a transition from fragmented adaptation efforts to a coherent and scalable model of climate resilience in Lao PDR.

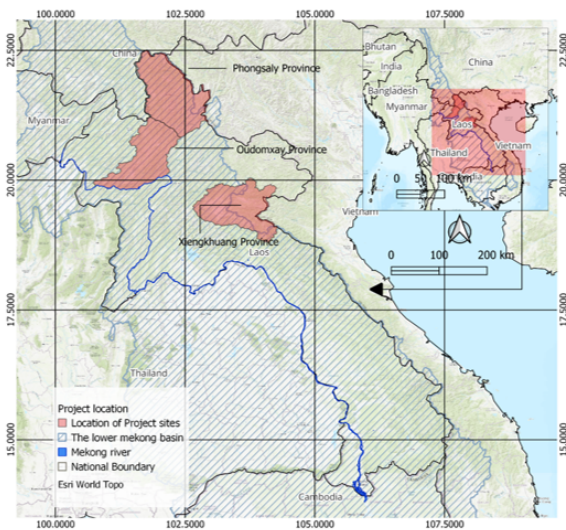
Figure 3. Project's ToC diagram

Project Objective:
Enhancing resilience and sustainable livelihoods in the watershed areas of the Northern Lao PDR through acceleration of the integration of ecosystem-based adaptation (EbA) solutions at the national and subnational levels



Project target areas

The project's landscape-level activities will be implemented in Boun Neua, Lah and Pha Xai districts, selected based on a combination of criteria, including: (i) high exposure to climate hazards such as floods, droughts and landslides; (ii) ecological and hydrological importance as upper watershed systems within the Mekong Basin; (iii) extent of ecosystem degradation and associated risks to biodiversity and ecosystem services; and (iv) strong dependence of local communities on climate-sensitive natural resources and livelihoods, creating opportunities to demonstrate integrated and scalable EbA approaches.



Boun Neua District (Phongsaly Province): Boun Neua District is a predominantly mountainous upland landscape within the Nam Ou River basin, characterised by steep slopes (400-1,800 m elevation), fragile soils, and extensive natural forest cover exceeding 80% of total land area. The district lies within the Northern Annamites rainforest ecoregion and supports a mosaic of evergreen, semi-evergreen and montane forests that provide critical ecosystem services, including water regulation, soil stabilisation, carbon sequestration and biodiversity habitat. However, these ecosystems are increasingly degraded due to shortened shifting cultivation cycles, expansion of commercial crops (e.g. rubber and cardamom), and seasonal wildfires, leading to severe soil erosion, sedimentation and landslide risk. Climate hazards are pronounced, including intense rainfall, floods, droughts and landslides, which are amplified by deforestation and steep terrain. As a result, watershed functions are declining, directly affecting downstream water availability, agricultural productivity and community resilience. For detailed landscape profile, please refer to Annex 21 of UNDP ProDoc.

Lah District (Oudomxay Province): Lah District is a highly dissected mountainous landscape dominated by steep terrain (often exceeding 30° slopes), degraded Acrisol soils, and a rapidly transforming land-use system driven by agricultural expansion. The district is located within the Nam Kor-Nam Pak watershed system, where high annual rainfall (2,000-3,000 mm) combined with fragile soils creates acute vulnerability to erosion, landslides and flooding. Forest cover remains significant but has declined substantially, with approximately 27% loss since 2000 due to conversion to maize, cassava and rubber plantations. This shift from traditional rotational agriculture to permanent monoculture systems has accelerated soil degradation and reduced ecosystem resilience. Key ecosystem services, including water regulation, slope stabilisation, biodiversity habitat and carbon storage, are under increasing pressure, while climate hazards such as flash floods, droughts and landslides are becoming more frequent and severe. The district therefore represents a critical example of the interaction between climate variability, land degradation and livelihood vulnerability. For detailed landscape profile, please refer to Annex 21 of UNDP ProDoc.

Pha Xai District (Xiengkhouang Province): Pha Xai District is located within the Nam Ngum watershed on the Xiengkhouang Plateau, characterised by a mix of rolling uplands, grasslands, valley plains and forested highlands. The district retains relatively high forest cover (approximately +80%), including dry evergreen, mixed deciduous and secondary forests, which play an important role in regulating water flows, stabilising soils and supporting biodiversity. However, the landscape is increasingly fragmented due to shifting cultivation, agricultural expansion, livestock grazing and infrastructure development, including mining concessions. The district is also uniquely constrained by widespread UXO contamination, limiting land access and complicating land-use planning and ecosystem restoration. Climate risks include floods, droughts, landslides and increasing rainfall variability, which are exacerbated by forest degradation and land-use change. As an upstream catchment of the Nam Ngum basin, the district is of high strategic importance for regional hydrology, hydropower systems and downstream water security. For detailed landscape profile, please refer to Annex 21 of UNDP ProDoc.

B.2. Incremental / additional cost reasoning and project benefits

Incremental cost reasoning

The proposed project generates global environmental benefits (GEBs) by addressing barriers that currently prevent EbA from being integrated into climate adaptation, local development and watershed management in Northern Laos. Under the baseline, climate adaptation efforts remain fragmented and largely project-driven. Existing policies, institutions and local initiatives provide useful entry points, but they do not yet deliver the integrated governance, finance, technical tools and local implementation systems needed to restore critical watershed functions, reduce climate risks, and generate sustained environmental and livelihood benefits at landscape scale. As a result, ecosystem degradation, weak hydrological regulation, declining soil fertility, biodiversity loss, and climate-vulnerable livelihoods continue to reinforce one another.

The alternative to be put in place through the GEF-LDCF project is an integrated EbA model that combines: (i) stronger governance, planning tools and policy integration at national and provincial levels; (ii) practical landscape-level restoration, rehabilitation and climate-resilient livelihood support in target districts; and (iii) sustainable financing, knowledge management and stakeholder engagement to ensure that outcomes are durable and scalable. This integrated alternative is incremental because it goes beyond the current baseline of isolated or sector-specific interventions and creates a coherent system through which EbA can be planned, financed, implemented, monitored and replicated.

The project's additionality lies in the fact that, without GEF support, these elements would remain disconnected. The anticipated GEBs therefore arise not only from direct field interventions, but from the institutional and financial architecture that allows those interventions to be sustained and scaled over time. The project's incremental reasoning can be summarised as follows.

Baseline	Alternative to be put in place	Project impact including GEBs
Enabling framework for integrating EbA into climate adaptation, subnational planning and sector decision-making in Lao PDR		
<ul style="list-style-type: none"> - No operational national EbA tool exists to support near real-time climate-risk and vulnerability assessment for local EbA design and planning. - EbA is not yet systematically integrated into provincial regulations, sector programmes, or subnational planning and budgeting processes. - Existing provincial planning frameworks include only limited or largely rhetorical treatment of climate adaptation, often without costed action plans, financing roadmaps, or implementation procedures. - Institutional coordination arrangements for climate adaptation and EbA remain fragmented across national, provincial and district levels. - Existing planning systems have limited tools and procedures for integrating environmental and social safeguards, climate-risk 	<ul style="list-style-type: none"> - A national remote-sensing-based EbA tool/application is developed and operationalised to support climate-risk and vulnerability assessment and improve design of local EbA solutions. - Provincial regulations and/or policies are adopted to direct the integration of EbA approaches into government programmes and planning documents. - Three comprehensive GESI-responsive EbA plans, including financing roadmaps and investment plans, are prepared and adopted in the target provinces. - Government personnel at national and subnational levels are trained to use the EbA tool and to apply EbA planning and financing approaches in practice. - Institutional coordination and planning arrangements are strengthened to support the integration of ecosystem service values, climate risk and safeguards into decision-making. 	<ul style="list-style-type: none"> - A coherent planning and governance framework is established for integrating EbA into climate adaptation and development decision-making in northern Lao PDR. - National and provincial institutions improve their capacity to identify, prioritise, plan and finance EbA measures in ways that enhance ecological integrity, watershed resilience and climate adaptation outcomes. - Criteria, tools, methodologies and procedures are available and applied for incorporating EbA into provincial planning and investment decisions. - Policy coherence is strengthened between climate adaptation, agriculture, forestry, watershed management and local development planning. - These governance improvements create the enabling conditions for sustained biodiversity conservation, improved land and water management, and longer-term climate resilience that would not arise under the baseline.

<p>information and ecosystem service values into decision-making.</p> <ul style="list-style-type: none"> - Capacity for identifying, planning, financing and operationalising EbA across agriculture, forestry, watershed management and local development remains limited. 		
<p>Landscape-level implementation of EbA in critical watershed ecosystems</p>		
<ul style="list-style-type: none"> - Degraded forests, unstable slopes, eroding soils and weakened hydrological regulation continue to increase exposure to floods, droughts and landslides in the target watersheds. - There is no integrated landscape-scale framework for applying EbA across forest, agroforestry, agricultural and community-managed lands. - Existing watershed interventions are fragmented across sectors and projects, with limited integration between restoration, livelihood resilience and climate adaptation. - Communities have limited access to suitable EbA models, tools and technical support for restoring critical watershed areas while maintaining viable livelihoods. - Incentives for local participation in restoration and sustainable natural resource management remain weak, particularly where short-term livelihood pressures favour unsustainable land use. - Capacity for community-based monitoring, adaptive management and maintenance of EbA interventions remains limited. 	<ul style="list-style-type: none"> - Integrated, GESI-responsive EbA packages are finalised, screened and operationalised for implementation in the three target districts. - At least 5,900 hectares of critical watershed areas are brought under restoration and rehabilitation through passive restoration, assisted natural regeneration and agroforestry-based afforestation. - 2,500 conservation households are supported to implement integrated EbA solutions linked to restoration, agroforestry, climate-smart agriculture and sustainable land management. - Participatory implementation planning, local capacity development, community-based monitoring and adaptive management systems are established. - Local conservation communities are engaged in natural resource management, co-management and benefit-sharing arrangements linked to restoration and resilience outcomes. 	<ul style="list-style-type: none"> - Critical watershed ecosystems in the Northern Highlands are restored and rehabilitated, improving ecological integrity, slope stability, soil health and hydrological regulation. - Climate resilience is strengthened in target landscapes through reduced exposure to floods, droughts, erosion and landslides. - Community stewardship of forests, watersheds and agroforestry systems is strengthened through participatory and inclusive implementation models. - The project demonstrates a practical, landscape-scale EbA model that links restoration, conservation-compatible production and local adaptation. - GEBs include reduced land degradation, improved ecosystem condition, enhanced biodiversity values, strengthened watershed services and long-term climate adaptation benefits that would not accrue under the baseline scenario.
<p>Financing and incentives for conservation-compatible livelihoods and nature-based solutions</p>		
<ul style="list-style-type: none"> - Current financing for EbA, watershed conservation and local adaptation is largely public and project-based, with few durable financing mechanisms at subnational level. - Provincial and district systems have limited ability to access or mobilise climate finance for EbA implementation. - Private sector engagement in financing nature-based solutions and conservation-compatible livelihood systems remains limited. 	<ul style="list-style-type: none"> - Sustainable financing schemes, including CSR, blended finance, REDD+-related approaches and other mechanisms, are developed and leveraged to support conservation communities in implementing EbA solutions. - At least USD 200,000 in sustainable finance is mobilised for conservation households. - Value chain analyses and market linkage assessments are carried out for sustainable agroforestry and NTFP products. 	<ul style="list-style-type: none"> - Diversified financing sources are mobilised to support conservation, watershed restoration and climate-resilient livelihood outcomes. - At least two new financing mechanisms and partnerships are developed and tested to support EbA and conservation-compatible livelihoods. - Local incentives for sustainable production and stewardship are strengthened, helping to reduce dependence on environmentally damaging livelihood practices. - Conservation households improve financial resilience through stronger market linkages, community enterprises and climate-smart agroforestry systems.

<ul style="list-style-type: none"> - Few incentives exist for businesses, producer groups or communities to integrate nature, biodiversity and ecosystem services into agroforestry-related operations and local market systems. - Value chains for agroforestry and NTFP products remain weak, with low local value capture, limited market access and inadequate business support. - Conservation households have limited access to affordable finance, climate-smart production practices and enterprise models that would support a transition away from unsustainable land use. 	<ul style="list-style-type: none"> - GESI-responsive community-based enterprises are established and supported, linked to climate-smart agriculture and agroforestry practices. - Institutions and communities are supported to strengthen partnerships and financing pathways for conservation-compatible livelihoods and resilient production systems. 	<ul style="list-style-type: none"> - At least 20% income increase is achieved for participating conservation households against baseline conditions. - The project demonstrates how environmental restoration, private and community finance, and local economic incentives can be aligned in support of biodiversity, soil and watershed conservation.
Knowledge management, awareness, inclusive participation and collaborative learning for EbA		
<ul style="list-style-type: none"> - Awareness of the ecological and economic value of ecosystem services, biodiversity, watershed health and EbA remains limited across many sectors and stakeholder groups. - Monitoring, evaluation, learning and reporting systems for climate adaptation are fragmented, with limited standardisation and weak integration across ministries and provinces. - Nature and ecosystem service values remain under-recognised in public and local decision-making due to limited baseline information, weak communication and inconsistent knowledge-sharing. - There are no strong and systematic platforms for sharing practical experience, lessons learned and best practices in EbA design, implementation and financing. - Inclusive participation of women, ethnic communities and other vulnerable groups in climate adaptation planning and implementation remains uneven. 	<ul style="list-style-type: none"> - GESI-responsive stakeholder engagement, communication and outreach strategies are developed and implemented. - Knowledge products, communication materials, conferences and events are produced to disseminate the project's lessons and best practices at national and subnational levels. - Peer-to-peer learning workshops and communities of practice are supported. - Project-level monitoring and evaluation systems are established to support adaptive management, tracking of results and long-term sustainability. - Safeguard instruments, grievance redress and inclusive participation mechanisms are implemented to ensure gender-responsive and socially inclusive delivery, including for Indigenous Peoples and Local Communities. 	<ul style="list-style-type: none"> - Public awareness and stakeholder understanding of EbA design, financing and implementation are significantly improved. - Knowledge, lessons and practical experience are documented and made available to a wider national audience, supporting future EbA programming and replication. - Monitoring, learning and communication systems improve the durability and scalability of project results. - Communities gain stronger understanding of the ecological and economic value of sustainable natural resource management, improving local stewardship and behaviour change. - Over 750,000 direct beneficiaries benefit from improved livelihood, awareness, planning, ecosystem services and resilience outcomes, with strong attention to women and ethnic communities. - Improved knowledge management and inclusive engagement help ensure that GEBs and adaptation benefits are sustained beyond the project period.

Global Environmental Benefits (GEBs)

The project will generate substantial GEBs by restoring and sustainably managing ecosystems in Northern Laos, while strengthening the institutional, financial and knowledge systems needed to sustain these benefits over time. At CEO endorsement, the project's GEBs are reflected in the wider reach of the intervention, which will benefit

755,296 direct beneficiaries across the three target provinces, including 378,898 men and 376,398 women, through improved livelihood and watershed services, climate resilience and ecosystem-based adaptation outcomes.

A key environmental benefit will be the management of 5,900 hectares of critical ecosystems for climate resilience, contributing to improved ecosystem integrity, reduced erosion, enhanced water regulation, and greater resilience of degraded watershed landscapes. The project will also support the mainstreaming of climate resilience through three policies, plans or frameworks, helping to embed EbA into development and planning systems beyond the project sites. In addition, 152 people will be trained or reached through awareness-raising activities (50% women), strengthening capacity to sustain EbA implementation and scale-up. The project will also engage six private sector enterprises in climate change adaptation and resilience action, supporting the mobilisation of finance and the integration of nature-based solutions into productive activities.

Socio-economic benefits

The project is also designed to deliver substantial socio-economic and adaptation co-benefits. At least 2,500 conservation households, including at least 50% ethnic minority households, will directly benefit from EbA implementation, with at least 12,500 individuals reached, of whom 50% are women. By linking restoration and agroforestry to value chain development, enterprise support, climate-smart practices and sustainable finance, the project aims to increase household income by 20% against baseline while strengthening financial resilience. Additionally, the project's GESI-responsive design is particularly important in the northern uplands, where ethnic communities, women and poor rural households are often disproportionately exposed to climate risks while facing unequal access to finance, information, markets and decision-making. The project's socio-economic benefits include not only income generation; but also conservation incentives, social inclusion and resilience-building so that adaptation benefits can be sustained after project completion.

B.3. Project's results, objective and components

Expected results: The project's expected results include: (i) strengthened national and provincial governance mechanisms, leading to improved coordination, planning and implementation capacities to integrate ecosystem-based climate adaptation; (ii) more effective, coordinated and integrated implementation and financing of nature-based adaptation solutions in the northern Lao PDR watershed landscapes, strengthening community resilience and livelihoods and (iii) increased public awareness/understanding and knowledge of EbA solutions, financing and implementation through effective lessons documentation and sharing at both national and sub-national levels.

The project is informed by and will advance Lao PDRs' climate policy objectives, and it aligns well with GEF 8 objectives and the objectives of the LDCF. It is expected to enhance policy coherence through strengthened governance mechanisms and institutional coordination. The project primarily focuses on adaptation, although the benefits for mitigation and biodiversity also seem likely. The project is also transformative in nature, involving causal pathways that: (i) strengthen institutional framework and capacity to integrate and finance sustainable climate adaptation solutions; (ii) advance the adoption of EbA at local level to strengthen community resilience and livelihoods; and (iii) strengthen knowledge management and access to climate information and solutions.

Project objective: The objective of the project is to enhance resilience and sustainable livelihoods in the watershed areas of the Northern Lao PDR through acceleration of the integration of ecosystem-based adaptation (EbA) solutions at the national and subnational levels.

Project components: To achieve the results and objective above, in line with Theory of Change, the project will implement the following Components:

Component 1 focuses on strengthening national and provincial governance systems to support the systematic integration of EbA into climate adaptation planning and implementation in Laos. The Component addresses key barriers identified in Section A, including fragmented climate information systems, limited policy integration of EbA, weak coordination across sectors, and insufficient technical capacity to design and implement EbA solutions. To achieve this, the Component will establish the enabling framework required to translate national climate commitments, particularly under the National Adaptation Plan (NAP 2025) into operational tools, policies, and planning processes at provincial and district levels. It will also strengthen institutional capacities to ensure that EbA is effectively mainstreamed into development decision-making across sectors such as agriculture, forestry, and water resources.

Outcome 1: Strengthened national and provincial governance mechanisms, leading to improved coordination, planning and implementation capacities to integrate ecosystem-based climate adaptation

(GEF Project Financing total = \$ 1,424,917)

This Outcome aims to establish a coherent governance and planning framework for EbA, improving the ability of national and subnational institutions to plan, coordinate, and implement adaptation measures in a systematic and integrated manner. Compared to the current baseline, where EbA is not fully embedded in planning systems and climate data remains fragmented, this Outcome will enable more coordinated, data-driven, and finance-linked adaptation planning. The Outcome will be delivered through four Outputs:

»» **Output 1.1. National level remote-sensing-based tool/application developed for assessing close to real-time climate risk and vulnerability to design comprehensive local EbA solutions**

Output 1.1 will create and commence implementation / operation of one national EbA tool/application. This will be designed to improve decision-making processes, programming and implementation of EbA solutions at both the national and local levels. Key deliverables under this Output include:

One operational national remote-sensing-based EbA tool/application integrating climate risk, ecosystem and spatial data

A web-based platform for visualisation and analysis of climate and ecosystem data

Operational guidelines, user manuals, and system administration protocols; in particular a cross-sectoral data-sharing and interoperability protocol to facilitate secure, coordinated and efficient exchange of data among relevant government agencies and existing systems.

A functional “one-stop” interface linking existing systems (e.g. CIS, LaCSA, SAMIS)

Trained national and subnational users capable of applying the tool for EbA planning

Adoption of the EbA tool by national and subnational government agencies for use in their planning or decision-making processes

The following are the activities proposed to support the delivery of this Output:

Activity 1.1.1: Stock-take of EbA (Climate Information System - CIS) Tools

This activity will initiate the framework for establishing a national EbA tool that may embrace or build upon existing systems already underway (see Annex 21b), though that is specifically designed to upload remotely sensed data to better enhance EbA related decision-making, programming and future implementation of EbA solutions at both the national and local levels. Whilst a CIS is being designed for Laos through the NAP process that is currently underway, its purpose is not to consider the inclusion of bio-physical related datasets, though its strength lies squarely in providing information on climate risk vulnerability assessments (CRVAs) for all 18 Provinces and 130 Districts across Lao PDR. Therefore, in the first instance, an inventory of possible EbA tools (global or regional) that may compliment the CIA will need to initially be prepared. This approach is needed as currently, in Lao PDR, climate data/information “systems” are not centralized. Data/information (including any remotely sensed data that would benefit EbA decision making) is currently dispersed across multiple sectoral systems and institutions, with limited interoperability and coordination among agencies. As a result, exchanging climate, ecosystem and spatial data across sectors remains a significant challenge, often constrained by differing formats, institutional mandates, access procedures, and in some cases payment requirements for data access. To address this, the project will assess options for establishing a practical cross-sectoral data-sharing and interoperability protocol as part of the EbA tool design, to facilitate more coordinated, efficient and transparent exchange of relevant datasets among key agencies and existing systems.

This activity therefore is designed to propose an effective way forward. This will consist of two interdependent parts as follows:

- (i) a database of existing (global) EbA tools and methodologies that may be of relevance to Laos that embraces the systems that are already in place^{[1]⁵⁰}; and
- (ii) a questionnaire to collect information on experiences using EbA tools.

This guidance will explain what information is to be provided within the database of tools and methodologies. Instructions will also be prepared on how users can search and add to the database. It will also enable users to provide information on their experiences of the various tools that will be included in this inventory. The core headers to be used in this stock take (to help determine the most suitable tool details needed) are listed below.

Planning	Reviewing and stocktaking of socio-ecological information as well as information on the institutional and regulatory context
Assessment	Analysing climate change scenarios and assessing current and future vulnerabilities
Design	Identifying, selecting and appraising adaptation options
Implementation	Developing a clear, long-term implementation strategy
Monitoring & Evaluation	Developing an M&E system to support adaptive management
Mainstreaming	Integrating EbA into existitng policies, frameworks, planning mechanisms and projects

This stock-take exercise will inform a clear assessment of the most suitable national remote-sensing-based tools and applications to support EbA-related decision-making, programming, and implementation at national, provincial, and district levels. Importantly, it will be ensured that this tool does not overlap with existing “tools” that may exist. Instead, it will be designed so that it aids in developing comprehensive, remote-sensing-based assessments of future climate risk and vulnerability, enabling more strategic and informed adaptation planning that makes use of EbA measures. Consideration willalso be made on how to include and capture traditional ecological knowledge to complement the remotely sensed /satellite data-based assessments.

Annex 21b identifies the most likely systems that could be built upon that currently exist in Lao PDR. Embracing realistic co-financing opportunities that exist (within ongoing projects), aligned opportunities may be realized by linking this EbA (CIS) Tool with the pending SAMIS Phase 2 work. This GCF funded work is seeking to update the existing SAMIS applications (early warning for the agricultural sector through the Land Resources Information Management Systems – LRIMS) which plays neatly into the intentions of this EbA tool being proposed. At this stage, the Lao PDR Climate Services for Agriculture (LaCSA) system appears to be the most suitable platform for alignment, ensuring minimal overlap and maximum complementarity with the proposed EbA tool. An alternative that may be considered to LaCSA^{[2][51]} may be to propose a link to the new CIS tool which is being developed by MAE and DMH under the National Adaptation Plan (NAP project – see Annex 21b).

Activity 1.1.2: Design of Preferred Integrated EbA Tool

Once a decision is reached by the Steering Committee on activity 1.1.1, this specific activity will go into more detail on how the EbA tool will operate and how it should link to the preferred system (identified in Activity 1.1.1 - see Annex 21b for more details). A detailed guidance and operational manual will be prepared along with a clear training manual for implementation that will be implemented through a targeted training approach that will engage National, Provincial (Oudomxay, Phongsaly and Xiengkhouang) and District level operators within those 3 Provinces. This manual will also include practical protocols for system administration, interoperability, and cross-sectoral data sharing among relevant agencies and existing national systems. This will help ensure coordinated, efficient and transparent exchange of climate, ecosystem and spatial data to support EbA planning and decision-making at national and subnational levels. To this end, improved capacity of at least 152 government personnel (50% being women) will be attained from the relevant national and sub-national government institutions.

Activity 1.1.3: Pilot Testing Phase for Preferred Integrated EbA Tool

This activity will undertake a “pilot” testing phase for the agreed EbA Tool which will lead towards the implementation of a “one-stop platform” for visualizing existing real time datasets (aerial or satellite imagery and hydro-meteorological data which may be used by multiple sectors). Figure 4 demonstrates a screen shot of the existing Lao CIS being produced under the NAP project. Pilot testing a “hybrid” system that combines LaCSA (SAMIS Project) and CIS tools together, which will be carried out and disseminated to key participants from national, provincial and District bodies to help improve its functionality as required. The pilot phase will also test practical arrangements for inter-agency data exchange and interoperability between the EbA tool and existing national systems. Lessons learned from the setup of the LaCSA tool shall be embraced within the pilot testing of the preferred tool.



CRVA Data 20 years	
Provinces	
District	
Number of villages affected by flash floods in the last 20 year	2
Number of villages affected by pluvial floods in the last 20 ye	2
Number of villages affected by storms in the last 20 years	5
Number of villages that landslides occurred in the last 20 years	1
Number of villages affected by drought in the last 20 years	2
Maximum temperature (Celsius)_(annual average of 20 years)	26.9
Minimum temperature (Celsius)_(annual average of 20 years)	16.9
Average temperature (Celsius)_(annual average of 20 years)	21.9
Precipitation (mm/year)_(annual average of 20 years)	1,430
Frequency of flash floods in the last 20 years	0
Frequency of pluvial floods in the last 20 years	0
Frequency of storms in the last 20 years	7
Frequency of landslides in the last 20 years	26
Frequency of drought events in the last 20 years	20
Population (persons)_(as of 2022)	23,695
Land area (Square Km)_(as of 2022)	2,928
Population density (Person/SqB Km)	8
Women_(persons)_(as of 2022)	11,873
Number of poor households (households)_(as of 20	1,877
Number of farmers_(as of 2022)	11,781
Area of agricultural land (Square Km)	
Literacy rate_(as of 2022)	60.00%
Number of health centers, clinics and hospitals_(as of	6
Accessible road length (km) (in rainy season and dry	409.19
Accessible road length (Km) (in rainy season)_(as of	437.35
Total Accessible road length_(as of 2022)	846.54
Total number of households_(as of 2022)	4,726
Number of households accessible to clean water_(as	1,745
Number of household accessible to electricity_(as of	3,773

Figure 4: Screen shot of the current CRVA “pages” of the Lao PDR Climate Information System

In addition to integrating real-time and remote-sensed data at the provincial level, the tool will include a portal for EbA experts to upload their CVs, experience, and publications as part of an innovative Lao PDR EbA “Expert Register”. More details on this aspect of the tool are developed further in Output 3.2.

It is anticipated that the pilot test design will include the following tasks:

- Development of a Web-based Back-Office portal in which users from different sectors at central and provincial offices can login to manage and upload data, contents and related images; the pilot test EbA tool will provide guidance on the user interface design for the web-based portal.
- Establish a forum/dialogue platform (as part of the website) for researchers and policymakers to interact frequently, thereby promoting the needs of policy-makers in EbA related scientific research.
- Develop additional functionality to implement more advanced features such as interactive maps with landscape change related information included, Infographics Data Visualization and other features that could make the EbA tool and website look more attractive to public visitors. The improved NAP information website should be bi-lingual Lao and English.
- Develop an EbA tool and web user manual and deliver training to trainers (ToT) for officials from central and provincial offices (see Output 1.4).
- Develop a user manual and deliver training to the support staff and system administrators to maintain and administer the EbA Tool (see Output 1.4).
- Administrative and technical support, quality control for an initial postproduction period of 12 months.
- Full source code handover to MAE including all developed libraries etc.

Activity 1.1.4: National Roll out of Preferred Integrated EbA Tool

This activity will undertake District wide delivery of the EbA Tool. This will be delivered through a series of national and Provincial level events whereby the tool will be demonstrated “live” to all participants. It will combine technical experts from other parallel projects, demonstrating the complimentary approach adopted with existing systems that are being developed (such as the FAO/GEF “*Strengthening Agroclimatic Monitoring and Information Systems*” (SAMIS) and the Lao Disaster Information System (LaoDi). The project will ensure formal adoption of the EbA tool by government agencies for improving the decision making processes related to climate adaptation and land use planning, during the roll-out process. It will target at least three agencies for formal adoption: such as the Ministry of Agriculture and Forestry (MAF), the Ministry of Natural Resources and Environment (MONRE), and two provincial level departments

»» Output 1.2. Provincial regulations/policies directing the integration of EbA approaches in government programs/planning documents

Output 1.2 will involve the creation and subsequent adoption of three provincial regulations/policies (within the Provincial governments of Oudomxay, Phongsaly and Xiengkhuang, to better promote the integration of EbA solutions into provincial government programs/planning documents. Under this Output, the project will establish provincial EbA Working Groups, chaired and convened by the provincial authorities, to serve as a multi-sectoral body for the coordination of EbA and other similar initiatives at the Provincial level. These Working Groups are necessary in order to achieve synergy and strong level of cooperation between different districts and communities when implementing Provincial EbA Plans (see Output 1.3). Lessons learned and/or progress from provincial

implementation will be consolidated and communicated to MAE through existing national coordination arrangements.

Relevant coordination functions of the EbA Working Group will include the following:

- **Policy Coordination:** Ensure EbA principles are integrated into provincial policies, sector plans (e.g., forestry, agriculture, fisheries, disaster risk management, land use planning), and planning processes;
- **Cross-Sector Collaboration:** Convene relevant government agencies and stakeholders, including private sector, to encourage the mainstreaming of EbA initiatives and from this, to develop EbA Public-Private Partnerships (PPP) that integrate EbA principles;
- **Project Oversight and Implementation:** Guide the design and implementation of Provincial EbA projects/initiatives so they support national priorities as identified within the Lao PDR NAP (2025);
- **Monitoring & Reporting:** Establish M&R role to track EbA outcomes and ecosystem resilience indicators. This could include reviewing progress reports of EbA projects and commissioning evaluations to inform adaptive management.

Considering the above, key deliverables under this Output are:

- Three provincial regulations/policies formally adopted to integrate EbA into planning and development processes

Strengthened Terms of Reference for provincial coordination mechanisms (EbA Working Groups)

Established and operational Provincial EbA Working Groups

Clear procedures for integrating EbA into sectoral planning (agriculture, forestry, water, etc.)

Mechanisms for monitoring, reporting, and enforcing EbA policy implementation

The following activities are proposed to support the delivery of this Output:

Activity 1.2.1: Review of EbA Policy Coordination Procedures

This activity will analyze the existing policy coordination and mainstreaming guides and procedures that already exist in in Lao PDR (e.g., as already produced for the NAP project in 2025), and specifically in the target provinces. Particular attention will be placed on how to better embed EbA principles into sector specific plans for agriculture, water resources and forestry etc. The project will then support the establishment of specific Provincial level "EbA Working Groups" that will have a specific responsibility for coordinating EbA related activities at the Provincial level. This will be achieved by drafting new ToRs (for Provincial / District level members) that explicitly include the operating expectations for coordinating provincial and District wide EbA efforts; reviewing and advising on EbA related policy integration; and reporting on EbA progress at Provincial to District levels. Institutionalizing these roles within the updated ToRs will help clarify responsibilities and strengthen accountability for EbA delivery, communication, and technical oversight. This includes coordination with the EbA Tool developed under Activity 1.1.1 .

Activity 1.2.2: Prepare EbA Regulations

This activity will adopt three provincial regulations or policies to facilitate the integration of EbA solutions into government programs and planning documents. This work aligns with the ongoing NAP process, particularly the efforts of the National Coordination Mechanism to mainstream climate resilience into sectoral policy frameworks. Any proposed updates to policies that cite existing and future EbA initiatives will undergo detailed consultative processes to best outline how results of EbA projects will be reported to MAE (through existing national

coordination and reporting arrangements) and how these results will be reflected, where relevant, in country's national reports to CBD, UNCCCF, UNCCD, etc. Mechanisms will also be set up to help enforce the agreed regulations or policy directives within a Province (or District study area). Efforts to learn from this will then be created as a mandatory output as part of the annual reporting process so that lessons learned may then be applied at the national level (see Activity 1.2.3).

Activity 1.2.3: Support specific meetings of the EbA Working Group

This activity involves the delivery of EbA Working Group meetings within each participating District. At least 12 meetings (circa 4 in each target province) will be held of the newly proposed EbA Working Group to support wider communication of the work identified in Activity 1.2.2 (EbA policy regulation design and enforcement lessons etc) and Activity 1.3.1 (EbA Plans) that is identified below.

»» Output 1.3. Comprehensive GESI-responsive EbA plans for the target provinces (considering future climate risks and vulnerability), with adaptation financial roadmaps and investment plans included

Output 1.3 will support the development and formal adoption of three MAE-endorsed ecosystem-based adaptation (EbA) plans, including financing roadmaps, for the provinces of Oudomxay, Phongsaly, and Xiengkhouang. These plans will enhance sectoral resilience through targeted EbA measures and are expected to benefit over 750,000 beneficiaries across the three provinces.^[3]⁵² Key deliverables under this Output include:

Three comprehensive, MAE-endorsed provincial EbA plans

Updated and spatially informed CRVAs incorporating ecosystem and remote sensing data

Prioritised EbA intervention maps and landscape strategies

Detailed investment plans and financing roadmaps aligned with NAP and climate finance frameworks

Documented stakeholder inputs and validated planning processes

The following are the activities are proposed to support the delivery of this Output as follows:

Activity 1.3.1: Draft EbA Plan Production

This activity is designed to produce 3 Draft Provincial level EbA Plans that “map” EbA initiatives across all three target Provinces (within or outside of Target Districts). This will outline a series of draft costs for EbA implementation that will be considered by all relevant stakeholders (public, private and CSO's etc) within a separate phase of provincial level consultation events (see Activity 1.3.2). These draft plans will be designed to link to (and upscale) the existing Provincial NAPs. One key sub-task will be to review the existing Climate Risk Vulnerability Assessments (CRVAs^[4]⁵³) which will be updated with new EbA specific information that may be derived from new aerial imagery, satellite data or the like. This will be used to then consider green infrastructure opportunities that may (or may not) be referred to within existing Provincial level sector plans and/or related Provincial / District climate plans. Each EbA plan will include a baseline review of current and proposed land-use planning directives to identify areas where EbA-related buffer zones could be established. Likewise, local awareness of these issues will then be raised and communicated to all beneficiaries of these plans under Activity 1.3.2 (see below). Finally, each Draft EbA Plan will then be complimented with a specific “Investment Plan” that will in tandem, align with the

Climate Finance Reports that are currently being produced through the parallel NAP project along with the supporting NAP Investment and Action Plan (being developed into 2026).

Activity 1.3.2: Consultation on the Draft EbA Plans

This activity involves the delivery of at least two Province-specific consultation events (i.e: 6 in total) to cover Oudomxay, Phongsaly and Xiengkhouang Provinces. These events will be participatory in nature, engaging all direct and indirect beneficiaries who may have input into the EbA initiatives proposed and whom may be able to offer inputs into the draft costs proposed for EbA implementation. Particular attention is targeted at the sustainable financing of proposed EbA measures that align to the possible support to value chains of key agro-forestry related activities (including Sustainable Livestock; Organic Vegetables and Diversified Crops; Maize; Agroforestry Products including coffee and tea; Bamboo; Rubber; Non-Timber Forest Products (NTFPs) and Weaving and Handicrafts (eco-tourism)).

Activity 1.3.3: Final EbA Plan Production

This activity is designed to update the 3 Draft Provincial level EbA Plans that considers the consultation event findings (Activity 1.3.2) so that final EbA Plans may be produced. These will be subjected to MAE final scrutiny before formal Ministerial endorsement.

»» Output 1.4. Capacity training for key government officials at the national and sub-national levels on the utilization of EbA tool (Output 1.1.) and development of EbA plans (Output 1.3)

Output 1.4 will introduce programmes to help improve the capacity of at least 152 government personnel (50% being women) from relevant national and sub-national government institutions. This will be designed to enhance government's capacity to operationalize the EbA tool (Output 1.1), enforce the EbA regulations (Output 1.2) and develop/implement the EbA plans/financing roadmaps (Output 1.3) that are developed. Key deliverables under Output 1.4 are:

At least 152 government personnel trained (minimum 50% women) across national, provincial and district levels

A standardized EbA training package (including CRVA, EbA design, planning, finance and monitoring)

Training-of-Trainers (ToT) system operationalised and scaled

EbA guidelines tailored for the three target provinces and districts

Strengthened institutional capacity to apply EbA tools, enforce policies, and implement plans

The following activities are proposed to support this Output:

Activity 1.4.1: Develop a EbA training package

This activity is designed for Provincial and District level decision-makers. Links to Output 1.1 are proposed here, whereby the EbA Tool activities will draft initial training of trainers (ToT) strategies for officials from central and provincial offices plus training to support staff and system administrators to maintain and operate the EbA Tool. These are designed to complement and build upon the work already completed on a similar initiative that was recently completed by the ongoing NAP project. A series of training of trainer (ToT) workshops were undertaken, which covered three regions (northern, southern and central) between July 2024 and June 2025. The intention of this activity is now to upscale this ToT course, with a 50:50 split of men to women, being trained to focus on CRVA plus also the role of EbA interventions to support adaptation. Evidence from the ToT workshops (already held through the NAP process during April-May 2025) has highlighted how stakeholders from different sectors became climate adaptation trainers and these same individuals are now cascading their climate adaptation knowledge to peers within

their respective sectors. The method of seeking to improve engagement of women into the training will be to mirror the approach adopted by the NAP Focal Points who were involved in participating in a series of ToT workshops that were undertaken in 2025. These covered three regions of Laos (northern, southern and central) between July 2024 and June 2025. Importantly, this involved, early in the process, the engagement of the Laos Women Union (LWU) who helped to identify prospective candidates for being trainers for climate adaptation across the country.

In addition to the above, the training package will include a series of training events that are designed for national, provincial and district level decision makers on topics including CRVAs, designing EbA interventions, mapping “district scale” EbA landscape management strategies, mainstreaming EbA measures in provincial and district policies and plans, management of Public-Private Partnerships in EbA projects, value chain support and reporting on EbA results (in coordination with the NAP implementation plan). EbA guidelines for the agreed 3 pilot District areas (to support the ToT approach) will be produced as a key output of this activity.

Activity 1.4.2: Deliver EbA Training to Government Officials

This activity will enhance the capacity of at least 152 government personnel, with 50% being women, from relevant national and sub-national government institutions, to enable them to effectively utilise the EbA tool and develop EbA plans and financing roadmaps. To achieve this, the project will build on and scale up the “Training of Trainers” (ToT) approach already adopted by MAE (DoE) under the NAP process. In particular, the project will engage and further strengthen the network of 65 climate adaptation trainers established through the 2025 NAP project, enabling them to serve as EbA trainers and resource persons at provincial and district levels. This approach will support institutional continuity, strengthen local ownership, and enhance the long-term sustainability of EbA capacity beyond the lifetime of the project.

The ToT course on EbA shall be designed to enhance the capacities of key stakeholders in planning, implementing and monitoring EbA measures effectively as part of Provincial EbA Plans and to facilitate scaling up of EbA vertically and horizontally. The training programme will also contribute to embedding EbA knowledge and technical skills within existing government systems and training structures, reducing long-term dependence on external technical assistance. Identified knowledge gaps that are filled through the ToT may include: i) locally-specific climate risks and vulnerability, ii) the link between climate change, nature conservation and adaptation for people and their livelihoods, iii) how to strengthen the level of organizational and individual capacity to plan and implement EbA actions, iv) knowledge on mechanisms on how to include adaptation in current planning tools, v) tools to monitor and evaluate the performance of adaptation projects. The course shall introduce the EbA mainstreaming cycle and consider key crosscutting topics relevant for scaling-up such as governance, gender responsiveness and inclusion for the 3 project Districts and Provinces.

Component 2 focuses on advancing EbA solutions in Northern Laos. It will bring 900 hectares of critical protected areas (PAs) under improved management, as well as restore and rehabilitate at least 5,000 hectares of watershed areas through passive restoration and agroforestry-based afforestation, engaging 2,500 conservation households. These efforts will support long-term ecosystem regeneration, which in turn, enhances local resilience to climate hazards (particularly floods and drought) and improve financial stability through sustainable market linkages and community enterprise development. One separate Outcome is associated with this Component, which includes five separate Outputs and associated activities as follows:

Outcome 2. More effective, coordinated and integrated implementation and financing of ecosystem-based adaptation solutions in the northern Lao PDR watershed landscapes, strengthening community resilience and livelihoods

(GEF Project Financing total = \$ 3,312,292)

Outcome 2 focuses on strengthening the coordination, integration, financing and implementation mechanisms required to operationalise EbA at landscape level. It builds on the enabling conditions established under Component 1 by translating EbA priorities into coherent, site-specific interventions that are technically robust, financially viable, and socially inclusive. The outcome emphasises integration across sectors, alignment of financing with implementation needs, and strengthened local ownership, ensuring that EbA measures are not implemented in isolation but are embedded within broader watershed management and livelihood systems. Through this approach, Outcome 2 establishes a practical and scalable model for delivering sustained adaptation and environmental benefits. It will do so through the following five outputs.

»» Output 2.1. Support for ‘conservation communities’ to implement GESI-responsive integrated EbA solutions (agroforest-oriented watershed restoration and rehabilitation) in the target districts

Under Output 2.1 the project will establish and operationalise ‘Conservation Community’ arrangements in selected landscapes (protected areas/PAs and watershed sites) in the target districts, as identified and prioritised through the Provincial EbA Plans developed under Output 1.3. This output provides the community-based institutional and operational foundation for EbA implementation by organising, engaging and formalising the participation of households and communities in restoration, rehabilitation and sustainable land-use measures. The purpose of this output is not only to define the technical EbA packages, but also to secure community participation, clarify roles and responsibilities, and develop the local implementation arrangements through which conservation households can participate in watershed restoration and agroforest-oriented rehabilitation.

The implementation will focus on bundled, landscape- and watershed-scale EbA packages rather than isolated or stand-alone measures, ensuring that ecosystem restoration, climate risk reduction, biodiversity conservation, and livelihood enhancement are addressed in a coherent and mutually reinforcing manner. Each EbA package will be tailored to local ecological conditions, climate risks, land-use patterns, and socio-economic contexts, with explicit consideration of gender equality, social inclusion, and the needs of ethnic groups and Indigenous Peoples. EbA planning and site selection will incorporate traditional and local knowledge of ethnic communities, ensuring that locally appropriate practices and community priorities inform the design of interventions.

Depending on local conditions and priorities identified through the Provincial EbA Plans (Output 1.3), EbA packages may include a range of measures. These comprise restoration and rehabilitation of degraded forests and watersheds through native species reforestation and assisted natural regeneration; climate-resilient agroforestry systems integrating perennial crops, shade trees, and soil and water conservation measures; sustainable land management practices aimed at reducing soil erosion, landslide risk, and flood impacts; climate-resilient agricultural practices, including improved water management, diversified cropping systems, and climate-smart irrigation; and fire prevention and ecosystem protection measures in climate-vulnerable landscapes. All such measures will be implemented as integrated intervention packages to maximise ecosystem service provision, climate resilience, biodiversity co-benefits, and livelihood outcomes.

The EbA package implementation under this output will directly engage at least 2,500 households (at least 50% are of the ethnic minority households) and benefit at least 12,500 individuals (of which 50% are women). These beneficiaries will contribute to the restoration-rehabilitation and sustainable management of approximately 5,900 hectares of climate-vulnerable landscapes. All interventions will be implemented in compliance with national regulations and the project’s environmental and social safeguards framework. Site-specific screening and implementation planning will explicitly assess risks related to access, land and resource use, and tenure security, and will ensure that Free, Prior and Informed Consent (FPIC) is applied and documented where interventions may affect the rights, lands, resources, or traditional livelihoods of Indigenous Peoples and ethnic communities.

In practice, Output 2.1 will result in conservation communities being identified, consulted, formally engaged, and organised around agreed EbA intervention packages and implementation arrangements. These arrangements will then provide the basis for financing support under Output 2.2, market-linkage analysis under Output 2.3, and enterprise development under Output 2.4. Key deliverables under this Output are:

Three Strategic Feasibility Studies (SFS) (one per district), providing: detailed EbA intervention designs, spatial delineation at watershed and sub-watershed levels, and technical specifications and implementation plans

District-level EbA implementation packages, including: (i) integrated measures (restoration, agroforestry, climate-smart agriculture, fire management), (ii) ecosystem service targets (erosion reduction, water regulation, biodiversity), and (iii) GIS-based maps and spatial plans for all intervention areas

Participatory conservation community agreements and arrangements established in target districts, including agreed roles, responsibilities and participation frameworks for restoration and rehabilitation activities, as well as long-term stewardship.

Monitoring system established, including:

- Biophysical and socio-economic indicators;
- adaptive management protocols; and
- safeguards and inclusion tracking (including documentation of FPIC, where required, incorporation of traditional/local knowledge, and participation of ethnic communities in EbA planning and implementation)

Activity 2.1.1: Finalisation of conservation community arrangements and operationalisation of integrated EbA packages

The project will translate the prioritised EbA packages identified through the Provincial EbA Plans (Output 1.3) into fully operational implementation packages ready for on-the-ground delivery. This will be achieved through the following interventions:

- 1) **Technical detailing of EbA packages**: Through the completion of Strategic Feasibility Studies (SFS) for each District, the technical detailing of each EbA intervention will include several elements:
 - i. EbA packages will be defined as integrated combinations of complementary measures selected based on ecosystem function, climate risk profiles, and livelihood dependence. Measures may include forest and watershed restoration (e.g. native species reforestation, assisted natural regeneration, riparian buffer restoration, enrichment planting); climate-resilient agroforestry systems (e.g. shade-grown perennial crops, multi-strata tree–crop systems, contour planting); soil and water conservation measures (e.g. contour bunds, vegetative strips, terracing, check dams, infiltration ditches); climate-resilient agricultural measures (e.g. crop diversification, drought-tolerant varieties, improved water management, small-scale irrigation); and fire prevention and ecosystem protection measures (e.g. firebreak establishment, community fire management, early warning arrangements).
 - ii. For each EbA package, the project will define technical standards and specifications, including selection of native and climate-resilient species, design criteria for agroforestry and restoration systems, climate-resilience criteria to ensure interventions enhance water regulation and soil stability under projected climate scenarios, and maintenance and management requirements.
 - iii. The project will specify inputs and resources required for each EbA package, including seedlings, planting materials, tools, equipment, labour requirements for site preparation and maintenance,

and the roles and responsibilities of communities, local service providers, and government technical staff.

- iv. All EbA packages will be designed to reflect ecosystem connectivity and watershed-scale logic, ensuring that interventions upstream, midstream, and downstream are mutually reinforcing, that restoration and land-use measures contribute to improved water regulation and reduced disaster risk across the landscape, and that EbA implementation supports habitat connectivity and biodiversity conservation objectives rather than isolated site-level gains.

- 2) **Spatial delineation and mapping of implementation areas:** The project will delineate exact implementation boundaries at watershed and sub-watershed levels using GIS and spatial planning tools, building on the spatial prioritisation conducted under Output 1.3. Specific land-use categories (e.g. forest, agricultural land, riparian zones) will be identified, and compatibility will be confirmed with local land-use plans, protected area zoning where applicable, and village land-use agreements. Climate risk layers, biodiversity values, and ecosystem service hotspots will be integrated to optimise spatial targeting.
- 3) **Definition of ecosystem service and resilience objectives:** Clear ecosystem service objectives will be defined for each EbA package, such as reduced erosion and landslide risk, improved water regulation and dry-season flows, enhanced soil fertility and agricultural productivity, and improved habitat connectivity and biodiversity co-benefits. These objectives will be explicitly linked to the project's adaptation and biodiversity outcomes and to GEF Core Indicators, providing a basis for monitoring and evaluation.
- 4) **Identification and validation of beneficiaries and implementation partners:** Direct beneficiary groups will be identified and confirmed, including households, community organisations, farmer groups, and producer groups, with gender and social inclusion considerations integrated. Beneficiary selection will be validated through consultation with village authorities, district offices, and provincial departments to ensure transparency, equity, and alignment with local development priorities. Local implementation partners, such as district technical staff, extension services, and community-based organisations, will be identified and assigned roles. Community consultation processes will utilise existing local governance structures where appropriate, including customary and village-level institutions, to ensure culturally appropriate engagement and strengthen local ownership.
- 5) **Sequencing, phasing, and scheduling of EbA implementation:** Phased implementation schedules will be developed for each EbA package, including preparatory activities (training, site preparation), implementation phases (planting, construction, rehabilitation), and maintenance and post-implementation support. Implementation sequencing will be aligned with seasonal calendars, climatic conditions, and local livelihood cycles to maximise effectiveness and minimise disruption.
- 6) **Institutional coordination and validation:** Coordination meetings and technical validation workshops will be conducted with provincial and district authorities to formally endorse implementation packages. Consistency will be ensured with provincial development plans, sectoral strategies, and relevant regulatory frameworks. Formal agreements or administrative endorsements required for implementation will be secured.

Activity 2.1.2: Technical, environmental, social, and economic screening of EbA packages

Each EbA package will undergo technical, environmental, social, and economic screening, including District specific Strategic Feasibility Studies (SFS), to ensure technical viability, cost-effectiveness, safeguard compliance, land tenure security, and alignment with national and local regulations. The outcomes of this screening will be used to refine implementation designs prior to field deployment. This screening will also include assessment of social risks related to land tenure, access to natural resources, and potential impacts on Indigenous Peoples, with FPIC requirements identified and applied as necessary in accordance with UNDP Social and Environmental Standards.

Activity 2.1.3: Community engagement and participatory implementation planning

The project (including the SFS) will engage local communities, farmer groups, women's groups, and ethnic communities in participatory planning processes to support EbA implementation. Community-based implementation arrangements will be established or strengthened to ensure inclusive participation, transparency, and long-term stewardship of restored and sustainably managed landscapes. These processes will ensure that Indigenous Peoples and ethnic communities are meaningfully engaged in decision-making, and that their traditional knowledge and priorities are reflected in implementation arrangements.

Activity 2.1.4: Implementation of integrated EbA measures

Based on the findings of the SFS for each District, integrated EbA packages will be implemented at landscape and watershed scales using appropriate delivery modalities, such as community contracting, cash-for-work schemes, and partnerships with local service providers. Implementation will follow approved technical designs and schedules, with continuous technical supervision and quality control.

Activity 2.1.5: Capacity building for local implementation and maintenance

Hands-on training and technical support will be provided to communities, district staff, and extension workers to strengthen local capacities for EbA implementation, operation, and maintenance, thereby ensuring sustainability beyond the project lifetime.

Activity 2.1.6: Monitoring, adaptive management, and performance verification

The project will monitor biophysical and socio-economic indicators related to EbA implementation, including ecosystem condition, climate risk reduction, and beneficiary participation. Adaptive management approaches will be applied to refine EbA measures based on monitoring results, climatic variability, and stakeholder feedback. Additionally, monitoring under this activity will also track inclusive participation of ethnic communities, documentation of FPIC where required, and the incorporation of traditional and local knowledge into EbA planning and implementation.

»» Output 2.2. Sustainable financing schemes (from private CSR funds, blended, REDD+, etc.) leveraged for the target 'conservation communities' to implement EbA solutions (in relation to Output 2.1)

Under Output 2.2, the project will mobilise and leverage sustainable financing schemes to enable conservation communities established under Output 2.1 to implement agreed EbA measures. The emphasis of this output is on financing the implementation of restoration, rehabilitation, agroforestry and related EbA interventions by conservation households and communities, using locally accessible or externally mobilised sources of climate, environmental, blended, or CSR-related finance. It will support the design and piloting of financing mechanisms that lower barriers for conservation communities to participate in EbA, including co-financing arrangements, climate and environmental finance linkages, and other practical funding modalities suited to local contexts. In this way, Output 2.2 provides the implementation finance needed for the EbA commitments and community arrangements established under Output 2.1.

Key deliverables under this Output are:

At least USD 200,000 in sustainable financing mobilised to support conservation communities implementing EbA solutions

Financing mechanisms established and tested for restoration, rehabilitation, agroforestry and related EbA implementation

Conservation households and community groups supported to access climate, environmental, blended or CSR-related finance

Capacity built for community groups and relevant actors on financial literacy, proposal development, and use of financing instruments

Financing arrangements aligned with the EbA packages and conservation community agreements developed under Output 2.1

Activity 2.2.1: Identification and design of financing mechanisms for conservation communities

Under this activity, the project will identify and design financing mechanisms that can support conservation communities to implement the EbA measures agreed under Output 2.1. Building on the Provincial EbA Plans, the Strategic Feasibility Studies, and the value-chain and livelihood analyses undertaken during the PPG phase, the project will assess the financing needs associated with restoration, rehabilitation, agroforestry, assisted natural regeneration, soil and water conservation, and related watershed management interventions in each target district.

The activity will identify financing options that are realistic and accessible for conservation households and community groups, including local grant schemes, community-based revolving funds, CSR contributions, blended finance arrangements, public co-financing windows, and links to relevant climate and environmental financing mechanisms at provincial, national, or external levels. Particular attention will be given to ensuring that financing instruments are appropriate for the scale, risk profile, and implementation capacity of conservation communities, and that they can support EbA actions with both short-term implementation needs and medium-term livelihood benefits.

This activity will also define eligibility criteria, financing purposes, indicative allocation parameters, fiduciary and accountability requirements, and basic operating procedures for each proposed financing modality. The design process will be undertaken in consultation with provincial and district authorities, conservation communities, women's groups, ethnic communities, and relevant financing actors, in order to ensure local relevance, transparency, and social inclusion. The result will be a practical financing framework that links conservation community agreements under Output 2.1 with implementable, fit-for-purpose financing mechanisms.

Activity 2.2.2: Capacity building for conservation communities to access and manage EbA finance

This activity will strengthen the capacity of conservation communities, community organisations, producer groups, and relevant local institutions to access, manage, and account for EbA-related finance. The purpose is to ensure that conservation communities are not only identified as beneficiaries of financing schemes, but are also able to engage with those schemes effectively, transparently, and sustainably.

Capacity-building support will include training and mentoring on basic financial literacy, group financial management, budgeting for restoration and rehabilitation activities, proposal preparation, documentation requirements, use of grant or co-financing resources, simple bookkeeping, procurement of materials and services, and reporting on use of funds. Where relevant, the project will also support communities to understand the financial implications of different EbA options, including phased restoration, agroforestry establishment, maintenance requirements, and expected returns over time.

Training will be tailored to the capacities and needs of different community groups, including women-led groups, ethnic communities, and vulnerable households, and will use practical, locally appropriate methods. The project will also strengthen the role of district extension staff, village facilitators, and local support organisations so they can provide ongoing accompaniment to conservation communities during implementation. In this way, the activity will help build the confidence, organisational capability, and fiduciary discipline needed for communities to absorb and utilise EbA finance effectively.

Activity 2.2.3: Mobilisation and piloting of sustainable financing schemes for EbA implementation

Under this activity, the project will operationalise and pilot the financing mechanisms identified under Activity 2.2.1 in order to support actual implementation of EbA measures by conservation communities. The activity will focus on mobilising and deploying finance in forms that directly enable restoration, rehabilitation, agroforestry establishment, sustainable land management, and related community-level interventions.

Pilot financing schemes may include co-financing windows, performance-based support, matching contributions, revolving arrangements, or other practical financing models suitable for the target landscapes. The project will use its resources catalytically to test these approaches, with the aim of demonstrating how relatively modest and well-structured financial support can unlock local participation in EbA and reduce barriers to implementation. The mobilisation target of at least USD 200,000 in sustainable financing will be pursued through a combination of project resources, private sector contributions, CSR sources, and linkages to wider climate and environmental finance mechanisms.

Activity 2.2.4: Partnership facilitation with financing institutions, CSR actors and climate/environmental funds

This activity will facilitate partnerships between the project, conservation communities, and a range of financing actors that can support longer-term mobilisation of resources for EbA implementation. These actors may include commercial banks, rural finance providers, CSR programmes, impact investors, development finance institutions, environmental funds, climate finance facilities, REDD+ related mechanisms, and other relevant public or private financing institutions.

The activity will map and engage potential partners whose mandates, investment criteria, or social responsibility objectives are compatible with restoration, agroforestry, watershed rehabilitation, and climate-resilient livelihood systems. Based on this engagement, the project will help structure practical partnership arrangements that can channel resources towards conservation communities, whether through grant support, co-investment, blended structures, CSR contributions, or other financing mechanisms appropriate to the context.

Where feasible, the project will broker dialogue between financing actors and community groups, support preparation of concept notes or investment proposals, and facilitate memoranda of understanding or other partnership arrangements. It will also seek alignment with national platforms such as the Climate and Sustainable Finance Hub in Lao PDR, so that local implementation can connect to wider policy and financing reforms. This activity will therefore help move beyond isolated project financing and create pathways through which conservation communities can access sustained external support for EbA implementation.

Activity 2.2.5: Monitoring and learning on financing models for conservation community implementation

This activity will generate evidence and lessons on the performance, relevance, and scalability of the financing models piloted under Output 2.2. Monitoring will assess not only financial delivery and uptake, but also the extent to which the financing schemes enable conservation communities to implement agreed EbA measures effectively, equitably, and sustainably.

The activity will track indicators such as number and type of conservation communities accessing finance, timeliness and use of disbursements, implementation progress of funded EbA measures, community satisfaction, inclusion of women and ethnic groups, basic fiduciary performance, and early livelihood and environmental outcomes associated with funded interventions. Monitoring will also assess the suitability of different financing modalities for different types of interventions and beneficiary groups, including whether certain models are more effective for restoration, agroforestry establishment, or community-based maintenance and stewardship. Lessons learned will be documented through periodic reviews, case studies, and implementation learning notes, with findings fed into adaptive management of the project. The activity will also identify which financing models show the greatest potential for institutionalisation, replication, or uptake by other programmes and financing partners.

»» Output 2.3. Assessment reports on potential market linkages built upon value chain analysis for community sustainable agroforest and/or NTFP products (in relation to Outputs 2.1 and 2.2)

Output 2.3 will assess and develop the market-linkage, value-chain and partnership conditions required to support sustainable agroforestry and NTFP products generated through EbA implementation under Outputs 2.1 and 2.2. As restoration, rehabilitation and agroforestry interventions become established through conservation community arrangements and financing support, this output will identify the market pathways needed to connect these products to viable buyers, off-takers, supply chains and partnership arrangements.

The main focus of this output is to bridge EbA implementation and livelihood improvement by assessing commercial opportunities for agroforest and NTFP products, including value-chain development, market supply chains, public-private partnerships, off-take arrangements, and other buyer–producer models. It will help ensure that products derived from restoration-compatible livelihoods can access markets in ways that reinforce conservation incentives and improve long-term viability for participating communities.

Key deliverables:

Market and value-chain assessments for priority agroforestry and NTFP products emerging from EbA interventions

PPP opportunities, off-take arrangements and supply-chain entry points identified for conservation community products

Technical recommendations to inform community-based enterprise establishment under Output 2.4

One activity is proposed under Output 2.3:

Activity 2.3.1: Assessment of market linkages, value chains and partnership opportunities for EbA-compatible products

This activity will assess and develop the market, value-chain and partnership conditions required to support sustainable agroforestry and NTFP products emerging from EbA implementation under Outputs 2.1 and 2.2. The focus will be on identifying viable commercial pathways through which products derived from restoration-compatible livelihoods can access markets, generate income, and reinforce conservation incentives for participating communities.

The activity will support the Department of Environment (in MAE) and relevant partners to undertake market and value-chain assessments for priority agroforestry and NTFP products associated with EbA interventions, including products linked to agroforestry systems, sustainable forest restoration, and watershed-compatible livelihood options. These assessments will examine market demand, buyer requirements, supply-chain structures, value addition opportunities, entry barriers, and the competitiveness of community-produced goods in local, national, and, where feasible, niche or cross-border markets. In addition, the activity will identify partnership opportunities that can help connect conservation communities with buyers, off-takers, processors, aggregators, service providers, and other market actors. This will include assessment of PPP potential, off-take arrangements, contract farming or sourcing models, and other buyer–producer mechanisms that can support sustained market access for agroforestry and NTFP products. The emphasis is therefore on understanding and structuring commercially viable pathways for conservation-compatible products, rather than on financing EbA implementation directly.

Proposed Tasks to support this Activity include the following:

mapping of existing and potential markets for priority agroforestry and NTFP products generated through EbA interventions;

assessment of value-chain opportunities, including value addition, processing, aggregation, transport and market access constraints;

identification of viable buyers, off-takers, private sector partners and service providers, and analysis of the conditions required for conservation communities to engage with them;

assessment and development of PPP, off-take and buyer–producer partnership opportunities relevant to agroforestry and NTFP products;

capacity-building and dialogue workshops with private sector actors, community representatives and relevant government institutions to validate market findings and explore partnership options; and

preparation of technical recommendations to inform the design and establishment of community-based enterprises under Output 2.4.

Where relevant, the activity will also consider alignment with broader national initiatives on sustainable finance, value-chain development and green growth, including opportunities to connect market-linkage recommendations with wider public and private support systems. The findings of this activity will provide the analytical and partnership foundation for Output 2.4, under which conservation communities will be supported to establish GESI-responsive community-based enterprises based on identified market opportunities.

»» Output 2.4. GESI-responsive community-based enterprises established to strengthen conservation communities' livelihoods, including provision of climate-smart agriculture/agroforestry practices training (in relation to Output 2.3)

Output 2.4. will establish GESI-responsive community-based enterprises to strengthen the livelihoods of conservation communities, particularly those participating in PA management, restoration and rehabilitation that are related to climate-smart agriculture/agroforestry practices under Output 2.1. These enterprises will be developed on the basis of the market, value-chain, PPP and off-take opportunities identified under Output 2.3, so that conservation communities can move from EbA implementation into viable livelihood and business arrangements linked to sustainable agroforestry and NTFP production.

The activities under this output will therefore focus on operationalising community enterprises, producer groups, and business partnerships that are informed by market assessment results and aligned with conservation objectives. This includes the provision of climate-smart agriculture and agroforestry training, support for enterprise organisation and management, and facilitation of partnerships between conservation communities and private sector actors. The activities under this Output will deliver substantial benefits for terrestrial protected areas and help to maintain the ecosystem service areas associated with these areas.

In this sequencing, Output 2.4 represents the livelihood and enterprise follow-through of Outputs 2.1 to 2.3: communities are first organised around EbA implementation, then supported with finance, then linked to markets, and finally supported to establish practical community-based enterprises and partnerships.

Key deliverables under Output 2.4 are:

Community-based enterprises established and operationalised in target districts

Climate-smart agriculture and agroforestry training delivered to communities

Enterprise support systems (gender-responsive) established, including: production systems, value addition, and market access

Livelihood systems aligned with EbA implementation, ensuring: restoration and production are mutually reinforcing

Contribution to protected area and ecosystem service maintenance, including: support to buffer zones and surrounding landscapes

To achieve these deliverables, the activities under this output are designed to ensure that livelihood development reinforces, rather than competes with, ecosystem restoration and watershed management efforts, particularly within and around protected areas and their buffer zones. These activities comprise of:

Activity 2.4.1: Identify and design GESI-responsive community-based enterprises:

This activity will identify and prioritise community-based enterprise opportunities that directly support the livelihoods of conservation communities, particularly those located within and around Protected Areas and critical watershed zones. It will draw directly on the value-chain, market and financing analyses completed under Output 2.3. Through participatory assessments at village and district levels, the project will identify livelihood options based on climate-smart agriculture, agroforestry systems, and sustainable use of natural resources, building on the value chain and financing analyses under Output 2.3. Enterprise models will be designed as integrated systems that explicitly link production activities with EbA interventions implemented under Output 2.1, ensuring that livelihood development contributes to ecosystem restoration, biodiversity conservation, and improved watershed management. Strong emphasis will be placed on gender equality and social inclusion, including the identification and promotion of women-led enterprises.

Activity 2.4.2 Establish climate-smart agriculture and agroforestry enterprises:

This activity will support the establishment and operationalisation of community-based enterprises through targeted training and technical assistance. Training programmes will focus on climate-smart agriculture and agroforestry practices, including sustainable land management, soil and water conservation, and biodiversity-friendly production systems, in alignment with Outputs 2.1 and 2.3. In parallel, the project will provide support for enterprise establishment, including organisational development, financial literacy, and basic business management. Essential inputs, tools, and small-scale equipment will be provided where necessary. The activity will prioritise inclusive participation, ensuring that women, ethnic groups and vulnerable households are actively engaged in enterprise development and leadership roles.

Activity 2.4.3: Develop value addition, market linkage and incentive mechanisms

This activity will strengthen the economic viability of EbA-linked enterprises by supporting value addition, product development, and improved market access, building directly on the market linkage and financing mechanisms developed under Output 2.3. It will therefore operationalise the PPP, off-take and buyer-linked opportunities identified through Output 2.3 into concrete enterprise partnerships for conservation communities.

In this regard, the project will facilitate partnerships between community enterprises, SMEs and private sector actors, including the development of off-take arrangements and value chain integration. In addition, the activity will establish incentive mechanisms that link enterprise performance to conservation outcomes, ensuring that income generation is directly associated with the adoption of climate-smart agriculture and agroforestry practices and the maintenance of restored ecosystems. This will create strong economic incentives for conservation-compatible livelihoods and long-term stewardship of natural resources.

Activity 2.4.4: Implement protected area management, watershed systems and adaptive monitoring

This activity will ensure that enterprise development is fully integrated within protected area management and watershed restoration systems. Enterprises will be designed to support the maintenance of ecosystem services in buffer zones and surrounding landscapes, including water regulation, soil stability, and biodiversity conservation. The project will strengthen coordination between communities, local authorities and protected area management units, including support for co-management arrangements where appropriate. A monitoring and adaptive management framework will be established to track livelihood outcomes, gender participation, and environmental

impacts, including contributions to ecosystem restoration and resilience. Lessons learned will be used to refine enterprise models and support replication and scaling beyond the project areas.

»» Output 2.5. GESI- responsive community-based natural resource monitoring

Importantly, Component 2 is designed to account for climate risks and the other drivers of change, such as market fluctuations that influence agricultural productivity. This requires the establishment of GESI-responsive, community-based monitoring systems to support real-time feedback, evidence-based decision-making, and adaptive management of EbA interventions. Key deliverables of this Output are:

Community-based monitoring systems (with monitoring indicators well defined and applied) established and implemented across target districts

Training programmes delivered with 50:50 gender participation for long-term monitoring and stewardship

Monitoring reports generated to record progress against restoration targets supported, including: contribution to GBF Target 2 (restoration), improved ecological integrity and connectivity

To achieve the deliverables above, the following are the indicative activities under Output 2.5:

Activity 2.5.1: Establish GESI-responsive community-based monitoring systems

Community-based natural resource monitoring systems will be established across the target districts, aligned with EbA interventions under Output 2.1. These systems will be developed through participatory processes and embedded within local governance structures, with active involvement of women, ethnic groups and vulnerable households. Monitoring arrangements will be aligned with watershed and protected area management priorities to support long-term ownership and sustainability.

Activity 2.5.2: Develop indicators and integration with project M&E systems

A set of practical monitoring indicators will be developed and applied to track ecosystem restoration, biodiversity and ecosystem service outcomes, and climate resilience. These will be aligned with EbA objectives, GEF Core Indicators, and GBF Target 2 on restoration. Community-generated data will be integrated into the project's monitoring and evaluation system to support evidence-based planning and adaptive management.

Activity 2.5.3: Deliver capacity building for community monitoring

Targeted training will be delivered to build local capacity in data collection, reporting and interpretation. Training will use simple, practical tools and ensure a 50:50 gender balance, with specific support for women and vulnerable groups. This will strengthen local capacity to manage and sustain monitoring systems beyond the project period.

Activity 2.5.4: Ensure implementation and adaptive management

Community monitoring systems will be operationalised to regularly track the performance of EbA interventions and livelihood activities. Results will be used to inform local decision-making and adjust implementation where needed. This will support adaptive management, strengthen long-term stewardship, and contribute to improved ecosystem condition, resilience, and progress toward restoration targets.

Component 3 focuses on knowledge management, gender, and social inclusion by increasing public awareness, information sharing and lessons of exchanges of EbA solutions. The project will produce knowledge products, hold learning workshops, and establish a project-level monitoring and evaluation (M&E) system to ensure effective project implementation, monitoring of project impacts, and sustainability. It also includes Social and Environmental risks that will be monitored and responded periodically and systematically through a project-level Grievance Redress Mechanism (GRM) and effective implementation of any developed site-specific Environmental and Social Management Plans and their subplans, Indigenous Peoples Plans, Livelihoods Action Plan or Resettlement Action Plan, Gender Action Plan and Stakeholder Engagement Plan.

Outcome 3: Increased public awareness/understanding and knowledge of EbA solutions, financing and implementation through effective lessons documentation and sharing at both national and sub-national levels

(GEF Project Financing total = \$983,917 plus \$ 176,758)

Outcome 3 builds the enabling environment for sustained and scalable EbA by strengthening knowledge systems, inclusive participation, and adaptive management. It ensures that evidence, experience, and stakeholder perspectives are systematically captured and used to inform decision-making, improve implementation quality, and support continuous learning across national and subnational levels. By embedding gender equality and social inclusion principles throughout these processes, the outcome promotes equitable access to information, participation, and benefits, while reinforcing transparency, accountability, and long-term ownership of EbA interventions.

»» **Output 3.1. GESI-responsive stakeholder engagement, communication and outreach strategies, tailored to specific entities**

Output 3.1 will develop strategies to enhance public awareness (as measured by increased KAP score – see baseline and target in the Project Results Framework (see Section VI) to support improved EbA design/financing/applications among stakeholders. This Output focuses on conducting a wide ranging and effective awareness campaign, engaging local communities and decision-makers in the 3 target districts on topics including EbA, climate resilient value chains and biodiversity/watershed related conservation. Recognizing the common misconception that grey infrastructure is the only effective response to climate challenges, the outreach campaign that will be designed will focus energy on shifting mindsets to help foster a deeper understanding of the role of EbA and NbS, their effectiveness in supporting environmental sustainability as a no-regrets, win-win and even low-cost solution to climate adaptation and catchment related rehabilitation.

Key Deliverables under this Output comprise of:

A project Knowledge Management (KM) Strategy developed and operationalised

A comprehensive Communication Strategy, including culturally appropriate materials in Lao and relevant ethnic languages

A national and subnational awareness campaign implemented, including: (i) at least 12 district-level workshops; (ii) at least 6 village-level engagement sessions; and (iii) at least 9 public events/exhibitions

Behaviour change communication materials developed and disseminated (radio, social media, visual content)

To achieve a significant and lasting impact, the outreach and communication strategies will engage specific expertise in communications, marketing, and behaviour change. This specialized approach acknowledges that traditional (ethnic peoples) environmental messaging may not always resonate with the public or lead to behavioural change. By employing professionals that are skilled in influencing perceptions and actions, the strategies adopted will more effectively convey the benefits of EbA in Northern Lao PDR and on a more national footing along with clear messaging to all direct and indirect beneficiaries on the critical role that natural ecosystems play in climate adaptation. An integrated, behaviour change-oriented campaign that is grounded in Lao culture and powered by radio plus social video though reinforced through village, community and school networks, will offer the strongest pathway to normalize EbA as the default climate-resilience tool across both the target Provinces plus also across Lao PDR at a national scale.

A range of activities are proposed to support the delivery of this Output as follows:

Activity 3.1.1: Development of a Knowledge Management (KM) Strategy

This activity will develop a project KM Strategy that provides a systematic, gender-responsive process for capturing, organizing, and sharing Lao specific EbA and NbS experience, so it can immediately inform adaptive management within the project, accelerate replication in all participating (and non-participating Districts), and position Lao PDR as a regional knowledge broker within the ASEAN region. It will also link strategically to the EbA Tool (where suitable) as proposed in Output 1.1 (Activity 1.1.1) plus also offer links to three Provincial EbA Plans (Output 1.3) and associated training programmes (Output 1.4).

Activity 3.1.2: Development of the project Communication Strategy and campaign materials

This activity will produce a clear and informative Communication Strategy that integrates easy to understand campaign related materials in all relevant Lao languages to ensure that any materials produced may be absorbed by all relevant ethnic people groups. It will also include an annual review and update of the strategy and materials based on lessons learned (in English and Lao).

Activity 3.1.3: Implementation of the Communication Strategy

This activity will involve the delivery of twelve (4 per District) community awareness workshops and seminars. A series of separate village awareness sessions (six – 2 per District) will also be undertaken for local leaders, decision makers, large corporations, and SMEs; school and college engagement programs. This will build Activity 3.1.1 through the implementation of targeted media campaigns and involve the effective and appropriate use of social media outreach. Nine (9) public events and exhibitions (in coordination with parallel projects underway such the ADAEBio Phase 2 CCL project) will also be delivered within all surrounding Villages (within the District) that is undertaking EbA measures (circa 3 per District).

Activity 3.1.4: EbA Donor Exchange Event

This activity will be designed to bring together project executing partners and implementing agencies during Year 4 or 5 to exchange lessons learned, ensuring these experiences inform future projects. This is particularly important in EbA related projects as learnings must be widely shared to help similar initiatives avoid potential pitfalls. The outcome of this activity will also offer benefits and insights gained from other similar EbA related investments in Lao PDR, such as those GEF and LDCF projects implemented by other agencies.

By implementing these activities, the awareness campaign will not only educate and engage the local communities and decision-makers in the project districts but also foster a deeper understanding and commitment to environmental sustainability, climate adaptation, and conservation practices in the three target Provinces.

»»» **Output 3.2. GESI-focused knowledge products and communication materials, conferences, and events at national and sub-national levels to disseminate the project’s best practices and lessons learned**

Output 3.2 will develop and disseminate at least ten GESI-oriented knowledge/communication products and three peer-to-peer learning workshops (community of practice). Key deliverables under this Output include:

- **At least 10 GESI-oriented knowledge and communication products (toolkits, case studies, briefs, digital content)**
- **At least 3 peer-to-peer learning workshops / communities of practice conducted**
- **A national EbA and GESI Expert Registry developed and operational, including:**
 - **database of experts and institutions**
 - **two thematic platforms: *Envirodapt* (EbA) and *Equidapt* (GESI)**
- **A web-based knowledge platform hosted by MAE**
- **A Lessons and Best Practice Database, with bilingual (Lao/English) documentation**
- **At least 3 concept notes developed for future EbA investments**
- **Annual learning and knowledge exchange events conducted across target districts**

As stated in Output 1.1, a key product will include an “EbA and GESI Expert Register”. This EbA and GESI Expert Registry will be a live system portal that is designed to encourage community “champions” to be part of upskilling individuals’ other areas of Lao PDR on EbA techniques etc. This will be designed as an online self-registration of experts allowing for the continuous auto-updating of professional Profiles. It will be designed to house non-mediated information through two expert thematic forums as follows:

- a) **Envirodapt (dedicated to EbA best practices);**
- b) **Equidapt (devoted to GE and adaptation best practice).**

Moreover, the Expert Registry will be designed to contain an uploading function to share best practices project related deliverables & products (e.g. Project Briefs, Toolkits, URL links, Project MELs, Workshop Recommendations) through the Ministry’s (MAE) equivalent website (possibly linked to the NAP projects website^{[5]54}).

The purpose of the Expert Registry’s auto-filtering multi-criteria will serve as a proxy filter to ensure best practice EbA and GE quality control in Lao PDR. This will encourage continued capacity development as long term sustained success will warrant that registered EbA/GESI experts are not only highly qualified but possess certain minimum international standards of practice on EbA and gender equality mainstreaming coupled with climate risk management in addition to having a strong track record of experience in the country (or region).

Several Activities are hereby proposed to support this Output as follows:

Activity 3.2.1: “Identification of the needs”

A fairly robust preliminary scoping of needs for EbA and GESI related expertise (i.e., expert criteria, relevant experts, communities of practice and networks) will be conducted as an initial activity to identify lists of prospective experts and agencies (in Lao PDR) to be considered for inclusion within the Expert Registry.

Activity 3.2.2: “Identification of the individuals and organizations”

A preliminary thematic list of the types of core professionals and organizations to be contacted for the Expert Registry needs to be formulated, along with a series of sub-classifications to help broaden the levels of expertise across the proposed expert database. MAE and academia will initially be invited to offer suggestions to regional and national experts, based on their project portfolios. This may be set out as per the Table below:

PROFESSIONAL DISCIPLINE	PROFESSIONAL/THEMATIC EXPERTISE	SUB-CLASSIFICATIONS	EXPERT/AGENCY GPS COORDINATES
For EbA	<ol style="list-style-type: none"> 1. Climate Change Adaptation Experts 2. Biodiversity Specialists 3. Agricultural Engineers 4. Environmental Policy-Makers 5. Environmental Economists 6. Environmental Engineers 7. IWRM Expert 8. Flood Management Specialists 9. Fisheries Experts 10. Forestry Experts 11. Community-Based River Defence Groups 12. Hydrologists 	<ol style="list-style-type: none"> 1. the agency's, network's or professional's project/professional profile 2. a Sector-Based Categorization of their Project Portfolio 3. professional certifications 4. relevant tools, publications, and platforms, segregated by EbA &/or Gender Equality/social 5. status (public/private/NGO) type of actions (policy support, action/research, project design & implementation) 6. funding resource outputs (tools, applied research, publications, online platforms) 7. expert/agency GPS geographical location 8. social media contact coordinates 	GPS mapped Projects/ Case Studies
For GESI	<ol style="list-style-type: none"> 1. Women Experts in Environmental & Engineering Fields 2. Sector-Based Gender Focal Points 3. Gender Equality & Climate Change Adaptation Experts 4. Gender Equality & Biodiversity Specialists 5. Gender Equality & Agricultural Engineers 6. Gender Equality & Environmental Policy-Makers 7. Gender Equality & Environmental Economists 8. Gender Equality & IWRM Experts 	<ol style="list-style-type: none"> 1. the agency's, network's or professional's project/professional profile 2. a Sector-Based Categorization of their Project Portfolio 3. Professional certifications 4. relevant tools, publications, and platforms, segregated by EbA &/or Gender Equity status (public/private/NGO) 5. type of actions (policy support, action/research, project design & implementation) 6. funding resource outputs (tools, applied research, publications, online platforms) 7. GPS geographical location 8. social media contact coordinates 	GPS mapped Projects/ Case Studies

9. Gender Equality & Flood Management Specialists		
10. Gender Equality Specialists		
11. Gender Equality & Fisheries Experts		
12. Gender Equality & Forestry Experts		
13. Community-Based River Defence Groups		
14. Gender Equality & Hydrologists		
15. Women's Associations		
16. Gender Equality & Cultural Anthropologists		
17. Gender Equality & Policy-Makers		
18. Women Sociologists		
19. Social Economists		
20. Gender Equality & Livelihood Security Experts		
21. Gender Equality & Social Workers		

Activity 3.2.3: Development of the Expert Registry database

The first step in creating the database will consist of defining and validating its design, layout (filtering, profile structure, mapping) and functionality issues (e.g. digital inter-phasing, GPS locator).

Registry functionalities. Following register functionalities are foreseen at this stage:

- Online registration for new members & updating professional profiles
- Direct interphase with experts through email, phone, and social media
- Real-time chat-line using a specific plug-in (such as for example Live Chat Unlimited)
- Non-mediated Forum for users
- FAQ section
- Interphase with professional networks (e.g. LinkedIn) through Professional Group
- Possibly (feasibility to be checked): integration of participation in pilot projects through a summary information and localization

Once the above-mentioned platform parameters have been validated, the development of the platform database can commence. The Registry will be hosted on the MAE server (or equivalent). It will allow easy access to development partners in Lao PDR, Provincial and District stakeholders, with appropriate encoding and security features for end-

users. The end output will be a web-based Self-Registry of EbA/GESI Expertise (individuals and organizations) developed and populated with disaggregated EbA and GESI skills and know-how from Lao PDR and the ASEAN Region.

Activity 3.2.4: Peer-review and registration of identified expertise

This activity will complete the following:

Self-Registry: This Registry will function as a self-registry, with two complementary sub-components of data filters: the *Envirodapt database* dedicated to EbA expertise; and the *Equidapt* database devoted to gender Equality know-how. This approach will allow for harmonized and disaggregated data.

An online self-registration for new members will take place, with the auto-updating of professional profiles promoted every quarter through an automated prompt from the web moderator. This will be done via direct interphase with registered experts through email, SMS, and *Linkedin Professional Group* prompts. This Registry will foster the exchange of non-mediated information through two expert thematic forums: *Envirodapt (EbA expertise)* & *Equidapt (Gender Equality and adaptation expertise)* for users and contain a FAQ section for reference. Moreover, the Registry will contain an uploading function to share best practices of project related deliverables (e.g. Project Briefs, Project MELs, Workshop Recommendations) onto the MAE (or project) website.

Peer-Review: A mandatory auto-filtering multi-criteria will serve as a proxy filter to ensure quality control. This will warrant that registered experts are highly qualified, possess certain minimum international standards of practice on EbA and gender equity and climate risk management, and, have a strong track record of experience in Lao PDR or the region. This Expert Registry is designed to be used for future bids for EbA or climate adaptation, mainstreaming research, EbA pilot projects and investment programmes related to EbA and GESI mainstreaming, and strategic planning for climate risk management.

Also under this Output, the project will conduct semi-annual lessons learning sessions with the project partners to formulate the project lessons and develop best practices on EbA. The lessons and best practices will be applied for improvement of the project strategies (adaptive management) and disseminated among other Districts within Oudomxay, Phongsaly and Xiengkhuoang plus offer an upscaling opportunity for other Provinces in Lao PDR (and internationally) for effective learning and replication of successful approaches with an intention to speed up the climate adaptation efforts and deliver national GBF targets in Lao PDR. Under this Output the project will develop and implement the KM Strategy (Output 3.1) and update Stakeholder Engagement Plan to ensure participatory, inclusive and integrated implementation of the project activities in accordance with EbA concept and principles. This Output will be delivered in coordination with knowledge management mechanisms of parallel projects (such as the ADAEBio Phase 2 CCL project) to enable improved sharing of successful EbA experiences.

Activity 3.2.5. Annual learning sessions on EbA

This activity will integrate the contributor's input to the Expert Registry and from this, a series of rotating learning sessions for project partners and stakeholders will be organized and hosted alternately across all three participating Districts, that bring together community representatives, women's committees, district officials, private-sector partners, and technical agencies. Each session will capture fresh lessons from ongoing EbA agroforestry related measures, highlighting gender-specific benefits, constraints, and innovation in EbA and supporting sustainable value chains so that they may feed directly into the project's adaptive-management cycle through an updated "Lessons Log" (or similar). Links to Activity 3.1.4 (see above) will be made here to coincide with donor related exchange events planned as part of that Activity.

Activity 3.2.6. EbA knowledge collection and regional exchange series

During the 5 years of the project duration, insights will be captured through a series of annual learning sessions. These will be distilled into a bilingual (Lao/English) lessons and best practice database and publications, packaging the most transferable EbA models into concise, step-by-step case studies with budgets, contact points, and priority policy recommendations for MAE, Provinces, Districts and donors alike. To turn static knowledge into action, the project will run knowledge sharing events in cooperation the ADAEBio Phase 2 CCL project, including inter-district workshops,

webinars, interactions with Global EbA platforms and frameworks, such as the Global EbA Network^{[6]55}, the World Business Council for Sustainable Development and Business for Nature and Task Force for Nature-related Disclosure (amongst others). One output from this will be to (in partnership with CCL and others) prepare at least three (3) funded “concept notes” on future EbA interventions within each of the three provinces (for Donor funding into the future). As stated above links to Activity 3.1.4 and 3.2.5 will be made here to coincide with donor related exchange events planned.

»» **Output 3.3. Project-level M&E mechanism enables effective project management and monitoring, and delivery of project impacts and sustainability**

Output 3.3 will develop and establish project-level monitoring and evaluation procedures that are designed to facilitate systemic and adaptive project management, implementation-monitoring and sustainability across the target Provinces. The information and data received through the project M&E (undertaken by the National M&E Specialist) will be applied for the project adaptive management and learning. The last year of the project (Year 5) will produce a robust Exit Strategy to ensure sustainability and ownership of the project Outputs. The M&E activities are described in the M&E Plan section of this ProDoc. Key deliverables under Output 3.3 are:

- A validated project monitoring and evaluation (M&E) framework at inception
- A fully operational project M&E system aligned with UNDP/GEF Results-Based Management
- Regular quarterly and annual progress reports produced, which include the monitoring of:
 - project results and indicators
 - gender and stakeholder engagement
 - safeguards and community participation
- Mid-term review and terminal evaluation completed
- A project Exit Strategy developed in Year 5 to ensure sustainability and ownership

A range of activities are proposed to support the delivery of this Output as follows:

Activity 3.3.1: Validation of the monitoring framework for the project at the Inception phase;

Activity 3.3.2: Undertake monitoring of the project in relation to the results, safeguards, gender, community engagement plans, stakeholder engagement plans, and GRM. This will include tasks as follows:

- Tracking progress against all indicators in the project Results Framework and prepare regular updates to measure and report on the achievement of project outcomes.
- Regular updates to safeguards, gender, community engagement plans, and stakeholder engagement plans and approaches as required;
- Prepare quarterly and annual progress reports for sharing among partners, GEF and government and non-government entities;
- Presentation and communication of project results and impacts through regular Project Board Meetings and through other media such as websites and social media;
- Conduct mid-review, make adjustment and adapt as required to ensure achievement of project outcomes;
- Conduct terminal evaluation and disseminate its findings among key stakeholders to inform future EbA projects across Lao PDR and abroad.

»» **Output 3.4. Effective application of the Environmental and Social Management Safeguard procedures to facilitate inclusive and gender-responsive participation of Indigenous Peoples and Local Communities (IPLCs)**

Output 3.4 will regularly manage and monitor all project related Social and Environmental risks which are responded to periodically and systematically through a purposely created project-level Grievance Redress Mechanism and effective implementation of Environmental and Social Management Plan (ESMP). Key deliverables under this Output comprise of:

- **A fully operational Environmental and Social Management Plan (ESMP) and associated sub-plans**
- **A Grievance Redress Mechanism (GRM) established and functional across target districts**
- **Evidence-based documentation of safeguard and GRM compliance**

Under this Output, the project will develop and implement a participatory and gender-sensitive M&E framework in accordance with the Results-Based Management (RBM) approach practiced by UNDP and GEF. For the M&E, the project will use standard UNDP approaches and procedures and the following groups of indicators:

Output Indicators will be used to measure delivery of the project Outputs (the project's products and services) and monitor routine project progress on monthly and quarterly basis. Collection of information on the Output indicators will be performed by the Project Management Unit (PMU) and represented in the project Quarterly and Annual Reports;

Outcome Indicators in the Project Results Framework (PRF) will be used to indicate the progress toward and achievement of the project Outcomes (e.g., capacity, management, or behavioural changes happened in result of use of the project Outputs by target groups of stakeholders). Collection of information on the Outcome indicators will be performed by the PMU and key partners. Project progress against Outcome indicators will be reflected in the Annual, Mid-Term and Terminal Project Reports, LDCF Core Indicator Framework updates (see Annex 17), and Mid-Term Review and Terminal Evaluation Reports.

Impact Indicators will be used to measure changes in the ecosystem health and extent, climate resilience of communities, carbon sequestration, progress towards GBF Targets, and community livelihood because of EbA implementation, ecosystem restoration and improved protection.

Social and Environmental Risk Indicators will be used to assess impact of the project activities on gender equality and involvement of women in sustainable agriculture and forestry development as well as to monitor potential social and environmental risks that may be produced by the project. The ongoing data collection on the social and environmental risks indicators will be quarterly carried out by the PMU in cooperation with project partners.

The project will establish a project-level Grievance Redress Mechanism (GRM) in the project area. The project-level GRM will be built on UNDP Lao PDR's existing [Stakeholder Response Mechanism](#) and will be activated upon project inception, ensuring that communities and other stakeholders have access to a clear, accessible and accountable channel to raise concerns related to project implementation.

A range of activities are proposed to support the delivery of this Output as follows:

Activity 3.4.1: Monitoring of SES measures

This activity will undertake the required monitoring measures (and supporting evidence-based documentation) to ensure that environmental and social safeguards are delivered in line with the expectations of the project (as declared within the PIF)

Activity 3.4.2: Annual Reporting of all projects related SES and GESI

This activity will undertake all necessary safeguarding measures and gender inclusivity activities in line with the expectations of the project (as declared within the PIF).

Innovations, sustainability and scale-up

Innovation: The proposed project introduces a systemic and integrated EbA model that combines governance reform, landscape-level implementation, financing mechanisms, and knowledge systems within a single operational framework. This represents a significant shift from the current fragmented and project-based approach to climate adaptation in Lao PDR. The innovation lies in the simultaneous operationalisation of EbA across three interconnected levels:

At the national and provincial levels, the project establishes a remote-sensing-based EbA decision-support tool, coupled with provincial EbA regulations and planning frameworks. This creates, for the first time, a structured system for integrating climate risk, ecosystem data, and development planning into decision-making processes.

At the landscape level, the project implements integrated EbA packages across watershed systems, combining restoration, agroforestry, climate-smart agriculture, and biodiversity conservation. These interventions are designed as bundled, multi-functional solutions that address climate risks, ecosystem degradation, and livelihood needs simultaneously.

At the livelihood level, the project pilots innovative financing and enterprise models that link ecosystem restoration with livelihood incentives. This includes blended finance approaches, community-based enterprises, and risk-sharing mechanisms that enable private sector engagement in EbA-compatible activities.

A key innovation is the integration of EbA with livelihood systems, ensuring that restoration and production are mutually reinforcing rather than competing objectives. This is further strengthened through GESI-responsive approaches that promote inclusive participation and benefit-sharing, particularly for women and ethnic communities. Together, these elements create a replicable model for climate-resilient landscape management that is grounded in local realities while supported by national systems and financing mechanisms.

Sustainability: The project is designed to ensure sustainability by embedding EbA into policy, institutional, financial, and community systems, rather than relying on stand-alone interventions.

Institutional sustainability will be achieved through the adoption of EbA policies, provincial EbA plans, and strengthened coordination mechanisms (Component 1). By integrating EbA into existing planning and governance structures, the project ensures that adaptation measures continue to be implemented beyond the project lifetime.

Financial sustainability will be supported through the development of financing roadmaps, catalytic finance mechanisms, and private sector partnerships (Component 2). By linking restoration to viable value chains and

enterprises, the project creates long-term economic incentives for conservation and reduces dependence on external funding.

Ecological sustainability will be ensured through improved management of 900 hectares protected areas, the restoration and rehabilitation of 5,000 hectares of critical watershed areas, improving ecosystem functions such as water regulation, soil stability, and biodiversity conservation. The use of integrated, landscape-scale EbA packages strengthens ecosystem resilience to future climate variability.

Social sustainability will be reinforced through GESI-responsive approaches, community-based enterprises, and participatory monitoring systems (Components 2 and 3). These measures promote local ownership, equitable benefit-sharing, and long-term stewardship of natural resources.

Knowledge and adaptive management sustainability will be ensured through robust monitoring systems, knowledge platforms, and learning mechanisms (Component 3), enabling continuous improvement and informed decision-making over time.

Scaling-up: The project is explicitly designed to support scaling-up and replication across Lao PDR and beyond. Scaling will occur through three main pathways:

Policy and institutional mainstreaming: The integration of EbA into national tools, provincial regulations, and planning systems will enable replication across other provinces. The EbA tool, provincial plans, and coordination mechanisms provide a standardised framework that can be applied nationally.

Replication of models and financing mechanisms: The project will demonstrate scalable models for EbA implementation, including integrated landscape approaches, community-based enterprises, and blended finance mechanisms. These models will be refined through implementation and can be replicated in other watershed landscapes.

Knowledge dissemination and learning platforms: Through knowledge products, the EbA expert registry, peer-to-peer learning, and regional exchanges (Component 3), the project will facilitate horizontal and vertical knowledge transfer. Lessons learned will inform future investments, including the development of new project concepts and funding proposals.

In addition, the project will leverage existing national platforms, such as the NAP implementation framework and climate finance initiatives, to ensure that EbA approaches are integrated into broader development programmes and funding streams. By combining policy integration, practical demonstration, financing innovation, and knowledge dissemination, the project creates the institutional and financial conditions required for scaling-up. This positions the project as a transformative intervention, enabling Lao PDR to transition from fragmented adaptation efforts to a more coherent, scalable, and sustainable EbA-based resilience model.

[1] <https://friendsofeba.com/eba-tool/>

[2] The SAMIS project has in fact already harmonized into the LaCSA system the database of existing climate and meteorological data including three types of data: a single database of automatically generated data (34 stations) and manually recorded data (38 stations) having a span between 5 and 40 years.

[3] Lao Population statistics show a collective value of 730,295 (Phongsaly = 177,989; Oudomxay = 307,622; Xiengkhouang = 244,684) according to the 2015 Census (see Annex 21).

[4] this will include alignment to the new proposed GCF District level CRVA work, and Provincial NAPs that are produced.

[5] <https://naplaos.com/>

[6] <https://www.unep.org/gan/what-we-do/global-eba-fund?%2Fwhat-we-do%2Fglobal-eba-fund=&%2Fru%2Fnode%2F14=>

Institutional Arrangement and Coordination with Ongoing Initiatives and Project.

Please describe the Institutional Arrangements for the execution of this project, including financial management and procurement. If possible, please summarize the flow of funds (diagram), accountabilities for project management and financial reporting (organogram), including audit, and staffing plans. (max. 500 words, approximately 1 page)

Section 1: Institutional Arrangement

Implementing Partner: The Implementing Partner for this project is the **Department of Environment**, under the **Ministry of Agriculture and Environment**.

The Implementing Partner is the entity to which the UNDP Administrator has entrusted the implementation of UNDP assistance specified in this signed project document along with the assumption of full responsibility and accountability for the effective use of UNDP resources and the delivery of outputs, as set forth in this document.

The Implementing Partner is responsible for executing this project. Specific tasks include:

Project planning, coordination, management, monitoring, evaluation and reporting. This includes providing all required information and data necessary for timely, comprehensive and evidence-based project reporting, including results and financial data, as necessary. The Implementing Partner will strive to ensure project-level M&E is undertaken by national institutes and is aligned with national systems so that the data used and generated by the project supports national systems.

Overseeing the management of project risks as included in this project document and new risks that may emerge during project implementation.

Procurement of goods and services, including human resources.

Financial management, including overseeing financial expenditures against project budgets.

Approving and signing the multiyear workplan.

Approving and signing the combined delivery report at the end of the year; and,

Signing the financial report or the funding authorization and certificate of expenditures.

Responsible Parties: The project will engage two Responsible Parties (RPs) to support the delivery of specialised technical activities across Components 1-3. These entities will be competitively selected during the Inception Phase, formally nominated by the IP, and subject to a HACT assessment prior to contracting. The roles of the RPs will be aligned with the revised project design:

RP1 will primarily support Component 2, including the implementation of EbA interventions (Output 2.1), mobilisation of sustainable financing mechanisms (Output 2.2), and facilitation of private sector engagement, value chain

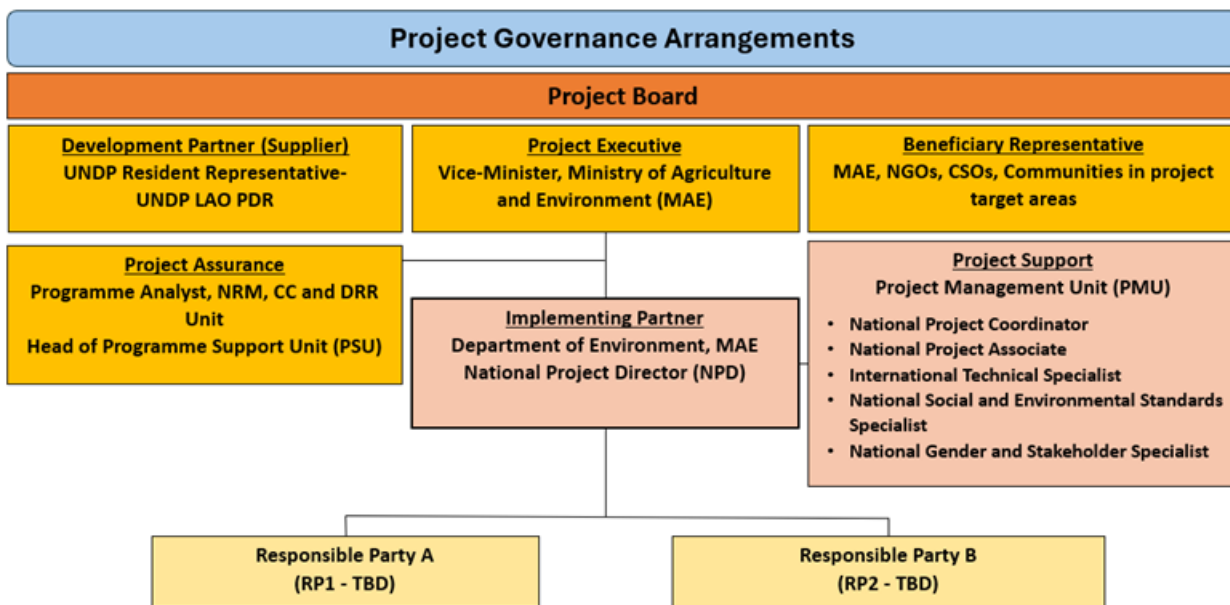
development, and enterprise-related activities (Outputs 2.3 and 2.4). This includes supporting the mobilisation of at least USD 200,000 in sustainable finance and facilitating partnerships with private sector actors.

RP2 will support Component 1, including the development and operationalisation of the EbA decision-support tool (Output 1.1), preparation of Provincial EbA Plans (Output 1.3), policy and regulatory integration (Output 1.2), and capacity-building activities (Output 1.4). This RP may also contribute to knowledge management and technical support functions under Component 3.

All RPs will be contracted during the Inception Phase and managed by the Implementing Partner, in accordance with UNDP rules and procedures.

UNDP: UNDP is accountable to the GEF for the implementation of this project. This includes overseeing project execution undertaken by the Implementing Partner to ensure that the project is being carried out in accordance with UNDP and GEF policies and procedures and the standards and provisions outlined in the Delegation of Authority (DOA) letter for this project. **The UNDP GEF Executive Coordinator, in consultation with UNDP Bureaus and the Implementing Partner, retains the right to revoke the project DOA, suspend or cancel this GEF project.** UNDP is responsible for the Project Assurance function in the project governance structure and presents to the Project Board and attends Project Board meetings as a non-voting member.

The governance structure for the project is presented below. The **Project Board** will be chaired by the Vice Minister of the Ministry of Agriculture and Environment. The composition of the Project Board will be confirmed during the project inception workshop.



NOTE:

First line of defense:

Person providing oversight of execution support (COS) cannot report to UNDP staff providing project assurance or providing programmatic oversight support to the RR.

Second line of Defense:

Regional Bureau oversees RR and function of UNDP Country Office compliance in project assurance.

BBPS RTA oversees functions of technical oversight and GEF compliance in project assurance. BBPS NCE PTA overseas RTA function.

UNDP GEF Executive Coordinator and Regional Bureau Deputy Director can revoke DOA/cancel/suspend project or provide enhanced oversight.

A **Project Board (Project Steering Committee)** will serve as the highest oversight body, chaired by MAE and comprising representatives from relevant ministries, provincial authorities, development partners, and key stakeholders. The Project Board will provide strategic guidance, approve workplans, review progress, and ensure alignment with national priorities. Decisions will be made by consensus in accordance with UNDP procedures.

The UNDP Resident Representative assumes full responsibility and accountability for oversight and quality assurance of this Project and ensures its timely implementation in compliance with the GEF-specific requirements and UNDP's Programme and Operations Policies and Procedures (POPP), its Financial Regulations and Rules and Internal Control Framework. The Programme Analyst the UNDP Country Office will assume the assurance role and will present assurance findings to the Project Board and therefore attends Project Board meetings as a non-voting member.

Day-to-day implementation will be managed by a **Project Management Unit (PMU)** under MAE, responsible for coordinating activities, managing resources, and ensuring timely delivery of results. The PMU will work closely with provincial and district authorities to facilitate implementation at the landscape level.

The project will engage a wide range of stakeholders, including government agencies, local communities, civil society organisations, and private sector actors. Local communities, including women and ethnic groups, will play a central role in implementation, monitoring, and stewardship of EbA interventions. Private sector engagement will support value chains, financing mechanisms, and enterprise development.

The project will also coordinate closely with ongoing national and donor-supported initiatives, including NAP implementation, climate finance programmes, and EbA-related projects, to maximise synergies, avoid duplication, and support scaling-up of results.

Overall, the institutional arrangement ensures strong government ownership, effective multi-stakeholder coordination, and full compliance with UNDP and GEF requirements, providing a robust foundation for delivering and sustaining project outcomes.

Will the GEF Agency play an execution role on this project?

No

If so, please describe that role here and the justification.

Also, please add a short explanation to describe cooperation with ongoing initiatives and projects, including potential for co-location and/or sharing of expertise/staffing (max. 500 words, approximately 1 page)

Building dynamic, cross-sector partnerships are key to the project to ensure that all relevant stakeholders that play key roles in EbA delivery, coordinated cross-sectoral planning, investment and finance planning, as well as the coordinated implementation of interventions to reduce the risks of degradation of watersheds and terrestrial natural resources, the loss of ecosystem services and biodiversity from the unsustainable livelihood and commercial natural resources exploitation practices. Such stakeholders include national, provincial and district government agencies, sectoral entities (in agro-forestry and water resources related sectors, among others such as tourism), NGOs and CBOs, donor organizations, scientific and educational institutes, as well as the private sector and local communities. To ensure completeness, as the first step following project initiation, during the Inception Phase, the Stakeholder Engagement Plan (Annex 8) will be critically reviewed and updated, to ensure that all relevant stakeholders are identified. Especially

government agencies at the national, municipal and district levels are critical to the development and implementation of practices to protect and sustainable landscapes in the three participating Provinces (and associated target Districts).

National, regional and local government authorities as well as NGOs and CBOs are important partners to facilitate the infusion of best EbA solutions and related management and finance considerations for the demonstration of benefits from investments in sustainable livelihood and business practices for the conservation and sustainable use of terrestrial natural resources. Private sector entities are of key value as possible partners for enhancing ecosystem and biodiversity conservation-friendly, commercially attractive business practices in their sectors of investments, as well as in promoting livelihood opportunities for local community members, including through project support in attractive finance support and incentives. At the same time, the project will benefit from UNDP's wider knowledge of networks and expertise, which can be accessed, as needed, for technical advice as well as capacity building and training activities. In addition, the project will ensure close linkages with ongoing initiatives to halt and reduce the loss of biodiversity and ecosystems, and the degradation of land and water resources, to exchange knowledge, expertise and worst- and best-practice results in support of mutual learning and, as relevant, cooperation.

The project will engage businesses in agriculture, forestry and related sectors to promote sustainable EbA practices at the village and District level. This may include sub-sectors that promote the use of climate smart agricultural services, support to delivering resilient value chains, agri-tech and digital farming tools, sustainable livestock or support towards offering attractive agricultural insurance and finance. Key institutions in Lao PDR that maybe involved in the project could include:

- Agence de Promotion et de Developpement des Entreprises (APME Lao PDR): While a government-supported agency, it works to provide financial solutions and support to SMEs, including those in the agricultural sector, helping them access the capital needed for resilience investments.
- ACLEDA Bank Lao Ltd.: A commercial bank with a strong focus on serving SMEs and rural populations. It is well-positioned to develop and offer tailored loan products for farmers seeking to invest in adaptation measures like drip irrigation or improved crop varieties.
- Forte Insurance (Lao) Co., Ltd.: As a leading insurance provider in the region with a presence in Lao PDR, Forte has the expertise to develop and pilot agricultural insurance products, potentially in a PPP model like that seen in Thailand, to help farmers manage climate-related crop losses.

Coordination with other relevant GEF-financed projects and other initiatives

The success of a project of this nature hinges on dynamic, strategic and multi-sector partnerships across several government agencies, NGOs and local communities. Working with other major GEF or non-GEF initiatives: other major GEF or non-GEF initiatives are also addressing EbA related issues. By working with these initiatives, the project will be able to share resources, collaborate on common goals, and leverage the strengths of each initiative. This will help to increase the project's impact and promote a more comprehensive approach to addressing sustainable land management and delivery of EbA measures across watersheds. Hence, at the core of the project's strategy is to identify and engage all relevant partners and stakeholders within the project as well as form a network that can catalyze further change. As such the project will be implemented in strong coordination and collaboration with other relevant programs and projects in the country to ensure (1) **Resource Optimisation**, including funding, expertise, and manpower, to avoid duplication of efforts and obtain co-financing; (2) **Knowledge and Experience Sharing** to enhance the effectiveness of each project, leading to more innovative and well-rounded solutions; and (3) **Synergy in objectives** to amplify their impact, making it easier to achieve these shared objectives on a larger scale. Specifically, the project will directly collaborate with the following initiatives in Lao PDR.

Considering the above, this Full-Sized Project is therefore strategically designed to complement and leverage existing investments in the development of the EbA measures across Lao PDR. Several donor-funded programmes and projects contribute to sustainable development and EbA delivery across Lao PDR, with links to the objective and outputs of this project. The project is also designed to build upon Govt of Lao PDR priorities (linked to the new NAP 2025), and the experiences and outcomes of some highly relevant ongoing projects, as well as support or complement projects that are scheduled to commence in 2026 onwards. Through UNDP Lao PDR, linkages and synergies will be established between the project and other GEF-financed projects and other donor initiatives across Northern Lao PDR, as described in the table below:

Existing initiatives (Projects/ Programmes)	Main Partners	Intersection with project outputs/interventions
Climate Protection through Avoided Deforestation (CliPAD)	GCF MAE	The project, financed by Green Climate Finance and BMZ, is being implemented in Lao PDR until 2027 and executed in the country by the Ministry of Agriculture and Environment. The key objective of the project is to reduce greenhouse gas emissions by promoting sustainable forest management and forested landscapes at scale in six provinces of Lao PDR through implementation of the Lao ERP.
Building resilience through small scale infrastructure, and MoNRE's Environment Protection Fund	MAE	This program focuses on development of small-scale infrastructure for water retention and water conservation to increase water availability during droughts. This initiative will be relevant for the project's interventions related to watershed management (Outputs 2.1 and 2.2).
Programs related to promoting good agriculture practices (focus on maize, rice and vegetable) in Oudomxay (2023-2026)	MAE and Dept of Forestry	These programs focus on increasing agriculture productivity through the application of good agriculture practices. This initiative will especially connect with this project's interventions under Component 2, especially activities related to the project's Output 2.4 (provision of climate-smart agriculture/agroforestry practices training).
Integrated Water Resource Management and Ecosystem-based Adaptation in the Xe Bang Hieng river basin and Luang Prabang city, Lao PDR (2022-2026)	UNDP (GEF)	This project focuses on (i) developing national and provincial capacities for Integrated Catchment Management (ICM) and integrated urban Ecosystem-based Adaptation (EbA) for climate risk reduction, (ii) implementing EbA interventions with supportive infrastructure and livelihood enhancement, and (iii) focusing on knowledge management and Monitoring and Evaluation (M&E). While it targets the infrastructure and urban planning related sectors, lessons learned from this project are very relevant for Outputs 1.3 and 2.1 of this PIF's project.
Enhancing Integrated Watershed Management and Climate Resilience for Vulnerable Communities in the Nam-Poui, Nam-Poun, Nam-Lay and Nam-Houng Basins in Lao PDR (at PPG stage)	WWF (GEF)	This project has an objective to 'enhance adaptation capacity of agriculture-dependent communities to floods, droughts, seasonal variations, and uneven access to freshwater in key river basins in Sayaboury province.' There is a significant potential for the two projects to collaborate to share lessons learned on watershed management and climate smart agriculture training (Outputs 2.1, 2.2, 2.3, 2.4).
The Climate Smart Agriculture (CSA) Project (the northern provinces of Luang Prabang and Houaphanh)	World Vision (GEF)	This project is aimed at (i) building an enabling environment to promote and incentivize resilient and sustainable rural landscapes in Lao PDR; (ii) adopting resilient and sustainable land-use planning and value-chain networks in both provinces; (iii) deploying climate-smart technologies to improve livelihood practices and support the food security and nutrition of rural households. This project's lessons will be very much relevant for Outputs 2.1, 2.2, 2.3, 2.4.
Climate Smart Agriculture alternatives for upland production systems in Lao PDR	FAO (GEF)	The planning and decision-making tools developed by the FAO-LDCF project for Luang Prabang and Houaphanh provinces (Output 2.1.3) offer valuable lessons and guidance for the UNDP-MoNRE's LDCF project in creating the national-level remote sensing EbA tool (Output 1.1). Moreover, the project will build on this FAO-LDCF project in developing regulations / policies for EbA mainstreaming in its target provinces (Output 1.2). It will also identify potential alignment with the national policies developed under FAO-LDCF project.
Enhancing Integrated Watershed Management and Climate Resilience for Vulnerable Communities in the Nam-Poui, Nam-Poun, Nam-Lay and Nam-Houng Basins in Lao PDR	WWF-US (GEF)	This project is aimed at enhancing climate resilience of local communities in key watersheds in Sayaboury province through IWRM (integrated water resource management) and community-driven livelihood support. This UNDP-MoNRE's LDCF project will coordinate with this WWF-led project to learn from their lessons especially regarding project's Outputs 1.3, 2.1, 2.2, 2.3, 2.4.

Strengthening Climate resilience of Lao PDR Health System (2023-onwards)	Save the Children Australia (GCF)	This project aims to enhance the climate resilience of the Lao PDR health system and empower communities to manage health impacts from climate change. The project will strengthen health system leadership and governance at all levels, improve access to climate information and WASH indicators for health facilities, and enhance health system capacity in 25 climate-vulnerable rural districts. Lessons from this project is especially relevant for Output 1.1. where the project will support the development of a national level remote-sensing-based tool/application for assessing future climate risk and vulnerability to design comprehensive local EBA solutions.
Scaling up the implementation of the Lao PDR Emission Reductions Programme (2023-onward)	GIZ (GCF)	This project's interventions centre around improving governance and sustainable forest landscape management. The lessons from this project will be highly relevant for Outputs 1.3 (EbA plans) and 2.1 (watershed management) to build upon.
Protection and Sustainable Use of Forest Ecosystem and Biodiversity (ProFEB)	GIZ	The project intersects with ProFEB mainly under Outputs 2.1–2.4, particularly in watershed restoration, forest management, and community livelihoods in Oudomxay. Both projects support restoration activities and forest-based value chains. Coordination will ensure alignment of target areas, shared planning information, and complementary approaches to avoid duplication and enhance impact.
Building resilience of urban populations with ecosystem-based solutions in Lao PDR (2020-2025)	UNEP (GCF)	This project aims to test an alternative approach to flood control in urban Lao PDR, moving away from a traditional focus on grey infrastructure, such as dams and concrete drainage systems. It will implement ecosystem-based adaptation in urban areas. Lessons from this project will be relevant for Output 1.3.
Strategic Support for Food Security and Nutrition (2nd Phase) 2023-2030	IFAD	The project aims to improve food and nutrition security through investments in nutrient-sensitive, climate-adapted agriculture. Key activities include empowering women to enhance family diets, especially during the critical first 1,000 days of an infant's life, forming farmers' organizations to connect small-scale farmers to markets, and supporting farmers in creating personalized, profitable agricultural solutions in collaboration with peers and private enterprises. This initiative is a great potential partner to collaborate on Outputs 2.2, 2.3 and 2.4.
Integrated rural development in Beng, La and Xay districts, Oudomxay province (ADAEBio)	AFD (CCL)	The ADAEBio project promotes the engagement of families, communities, and rural territories in pathways of sustainable socio-economic development. Strengthening the capacities of local actors—particularly women and youth—and creating horizontal and inclusive governance bodies at various levels (from villages to the provincial level) will support the identification and implementation of collaborative and relevant solutions to address the complex and interrelated challenges facing the territory: adaptation of farming systems to climate change through agroecology, pesticide management, water resource preservation, biodiversity erosion, and human-elephant conflict resolution. The lessons from this project will be highly relevant for Outputs 1.3 (EbA plans) and 2.1 (watershed management) to build upon.

Core Indicators

Indicate expected results in each relevant indicator using methodologies indicated in the GEF-8 Results Measurement Framework Guidelines. There is no need to complete this table for climate adaptation projects financed solely through LDCF and SCCF.

Explain the methodological approach and underlying logic to justify target levels for Core and Sub-Indicators (max. 250 words, approximately 1/2 page)

META INFORMATION – LDCF

LDCF true	SCCF-B (Window B) on technology transfer false	SCCF-A (Window-A) on climate Change adaptation false
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Is this project LDCF SCCF challenge program?

false

This Project involves at least one small island developing State(SIDS).

false

This Project involves at least one fragile and conflict affected state.

false

This Project will provide direct adaptation benefits to the private sector.

true

This Project is explicitly related to the formulation and/or implementation of national adaptation plans (NAPs).

true

This project will collaborate with activities begin supported by other adaptation funds. If yes, please select below

Green Climate Fund	Adaptation Fund	Pilot Program for Climate Resilience (PPCR)
true	false	false

This Project has an urban focus.

false

This project will directly engage local communities in project design and implementation

true

This project will support South-South knowledge exchange

true

This Project covers the following sector(s)[the total should be 100%]: *

Agriculture	20.00%
Nature-based management	40.00%
Climate information services	20.00%
Coastal zone management	0.00%
Water resources management	20.00%
Disaster risk management	0.00%
Other infrastructure	0.00%
Tourism	0.00%
Health	0.00%
Other (Please specify comments)	0.00%
Total	100.00%

This Project targets the following Climate change Exacerbated/introduced challenges:*

Sea level rise	Change in mean temperature	Increased climatic variability	Natural hazards
false	true	true	true
Land degradation	Coastal and/or Coral reef degradation	Groundwater quality/quantity	
true	false	false	

CORE INDICATORS – LDCF

	Total	Male	Female	% for Women
CORE INDICATOR 1				
Total number of direct beneficiaries	755,296	378,898.00	376,398.00	49.83%
CORE INDICATOR 2				
(a) Area of land managed for climate resilience (ha)	5,900.00			

(b) Coastal and marine area managed for climate resilience (ha)	0.00			
CORE INDICATOR 3				
Number of policies/plans/ frameworks/institutions for to strengthen climate adaptation	3.00			
CORE INDICATOR 4				
Number of people trained or with awareness raised	152	76.00	76.00	50.00%
CORE INDICATOR 5				
Number of private sector enterprises engaged in climate change adaptation and resilience	6.00			

SUB INDICATOR 1

	Total	Male	Female
1.1 Number of direct beneficiaries from more resilient physical and natural assets	12500	6,250	6,250
1.2 Number of direct beneficiaries with diversified and strengthened livelihoods and sources of income	12500	7,500	5,000
1.3 Number of direct beneficiaries from the new or improved climate information services including early warning systems	730296	365,148	365,148
1.4 Number of youth (15 to 24 years of age) benefiting from the project	0	0	0
1.5 Number of elderly (over 60 years of age) benefiting from the project	0	0	0
1.6 Increased income, or avoided decrease in income (per capita in \$ across all relevant beneficiaries)	0		

SUB-INDICATOR 2

2.1 Hectares of agricultural land

900

2.2 Hectares of urban landscape

0

2.3 Hectares of rural landscape

5,000

2.4 Hectares of forests

0

2.5 Hectares of marine area

0

2.6 Hectares of freshwater area

0

2.7 Number of residential houses

0

2.8 Number of public buildings

0

2.9 Number of irrigation or water structures

0

2.10 Number of fishery or aquaculture ponds or cages

0

2.11 Number of ports or landing sites

0

2.12 Km of road

0

2.13 Km of riverbank

0

2.14 Km of coast

0

2.15 Km of stormwater drainage

0

2.16 Number of new adaptation technologies supported

6

SUB INDICATOR 3

3.1 Number of policies/plans developed and strengthened that will mainstream climate resilience

(regional, national, sub-national)

3

3.2 Number of systems and frameworks established for continuous monitoring, reporting and review of climate adaptation impacts

0

3.3 Number of national climate policies and plans enabled, including national adaptation planning processes

0

3.4 Number of institutional partnerships or coordination mechanisms established or strengthened

3

3.5 Number of institutions with increased capacity to plan, implement, monitor, and report for climate adaptation

0

3.6 Number of institutions with increased capacity to attract, and manage climate adaptation finance

0

3.7 Number of local community organizations benefitting from and/or engaged in institution strengthening, partnerships, or financing

0

3.8. Number of climate risk and vulnerability assessments conducted

3

SUB INDICATOR 4

4.1 Number of people trained or made aware of climate change impacts and appropriate adaptation responses	Total	Male	Female
a) National government	10	5	5
b) Local government	90	45	45
c) Local community organizations	42	21	21
d) Extension services	0	0	0
e) Hydromet and disaster risk management agencies	10	5	5
f) School children, university students, and teachers	0	0	0
g) Youth	0	0	0

SUB INDICATOR 5

	Total	Male	Female
5.1 Amount of investment mobilized (US\$) from private sector sources	100,000		
5.2 Number of entrepreneurs supported for climate adaptation or resilience	20	13	7
5.3 Total financial value of lines of credit and/or investment funds	100,000		
5.4 Number of MSMEs incubated/accelerated with technical assistance, financial matchmaking, and/or direct financing	3		

Key Risks

	Rating	Explanation of risk and mitigation measures
CONTEXT		
Climate	Moderate	Project activities, which involve reforestation and climate smart agriculture, will be implemented in watershed areas of the Northern Laos - which are prone to floods, droughts, and landslides related hazards, and the outcomes of

		these interventions will be vulnerable to the potential impacts of these climate hazards. Each intervention site will be subject to a screening to identify the level of this risk and propose mitigation measures within the activities. Please see the project's SESP for details.
Environmental and Social	Substantial	EbA interventions carry ecological, community health and occupational risks and may lead to economic displacement, as well as negative impacts on indigenous peoples if not carefully managed. Implementation of IPM interventions can lead to the release of pesticides which can negatively affect the environment, particularly biodiversity. Site selection for each identified EbA intervention and pilot project will be subject to Environmental and Social (E&S) screening in line with the Environmental and Social Management Framework (ESMF) that has been developed for the project. The screening will assess these risks and propose mitigation measures including, as applicable, management plans such as Livelihoods Action Plans and Indigenous Peoples Plans. Please see the project's SESP for details
Political and Governance	Low	The project will be executed at the national, provincial, district, and community levels, with robust support from the government and other stakeholders. MAEA, the executing agency overseeing implementation, brings extensive experience in project management, political navigation, and governance. Although there is a potential risk of delays due to the turnover and rotation of government officials, this risk is minimized by the existing management mechanisms and lifelong assessment system. The project will engage with any new personnel during the implementation period to ensure their alignment with project goals and minimize impact on outcomes. This risk will be addressed in the stakeholder engagement plan, which will outline detailed mitigation strategies.

INNOVATION

Institutional and Policy	Moderate	The achievement of Outputs 1.2 and 1.3 will depend on the national and provincial government's buy-in. There is potential that the newly appointed (relevant) national entities and governors change their commitments / priorities due to the turnover. There is a risk that this might lead to a lack of buy-in for the adoption of these policies/plans, which could delay the execution of interventions under these outputs. The project PMU will consider recruiting a government liaison who will link the project with necessary authorities to ensure their buy-in. The project aims to enhance local resilience by formulating integrated watershed management plans and sustainable livelihoods (promoting NTFPs). However, these strategies may limit access to forest resources, such as timber, particularly for marginalized individuals or groups, potentially leading to economic loss if the planned alternative livelihoods and increased income for Indigenous Peoples and Local Communities (IPLCs) do not materialize as expected. To mitigate this risk, the project will reassess the Social and Environmental Screening Procedure (SESP) and develop an Environmental and Social Management Framework (ESMF) and a Stakeholder Engagement Plan. These measures, along with targeted management plans and a Strategic Environmental and
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		Social Assessment (SESA), will address this risk during project implementation. Please refer to Risk 3 of the project’s preliminary SESP for further details.
Technological		N/A
Financial and Business Model		N/A
EXECUTION		
Capacity	Moderate	Limited capacity of the government, especially Department of Climate Change in managing the project under National Implementation Modality with Country Office Support Services. To mitigate the risk, UNDP will provide training on fund management to the government.
Fiduciary	Moderate	Financial management and procurement risks relate to the potential mismanagement of funds. To mitigate these risks, the project will adhere to UNDP and GEF financial rules throughout its duration. Regular financial audits will be conducted to ensure the proper use of project funds and prevent any unauthorized changes. Given the current global economic climate, there is a risk of rising inflation during tproject implementation, which could impact the exchange rate and subsequently increase the project’s operational and other costs. To address this, the project will reevaluate this risk during the inception phase and develop suitable mitigation strategies.
Stakeholder	Moderate	Important stakeholders are not fully engaged, especially vulnerable and marginalized groups including women and IPLC. Please see Risk 2 and Risk 5 of the project’s pre-SESP for details.
Other		N/A
Overall Risk Rating	Moderate	Combining all identified risks, the overall project risk rating is assessed as moderate. However, close monitoring will ensure timely risk identification, management, and adaptation. The project will carry out environmental and social site screening and assessment and develop necessary plans during the inception phase to mitigate these risks.

C. ALIGNMENT WITH GEF-8 PROGRAMMING STRATEGIES AND COUNTRY/REGIONAL PRIORITIES

Explain how the proposed interventions are aligned with GEF- 8 programming strategies and country and regional priorities, including how these country strategies and plans relate to the multilateral environmental agreements.

For projects aiming to generate biodiversity benefits (regardless of what the source of the resources is - i.e., BD, CC or LD), please identify which of the 23 targets of the Kunming-Montreal Global Biodiversity Framework the project contributes to and explain how.

Confirm if any country policies that might contradict with intended outcomes of the project have been identified, and how the project will address this. (max. 500 words, approximately 1 page)

The proposed project is fully aligned with Lao PDR’s national climate, biodiversity and sustainable development priorities, and it contributes directly to the country’s commitments under the Convention on Biological Diversity (CBD), the UNFCCC, and the Paris Agreement. It responds to the Government of Lao PDR’s strategic direction to strengthen climate resilience, conserve and restore terrestrial ecosystems, improve watershed management, and support a transition towards greener and more inclusive development. The project is particularly relevant because it translates policy ambition into practical, landscape-level action through EbA, while strengthening the enabling environment needed for long-term sustainability.

At the national level, the project is consistent with the **National Adaptation Plan (2025)**, the **National Strategy on Climate Change (2024)**, the **Decree on Climate Change (2019)**, the **National Biodiversity Strategy and Action Plan (NBSAP)**, the **National Adaptation Programme of Action (NAPA, 2009)**, and the **MAE Vision towards 2030**. It also supports Lao PDR’s **NDC 3.0** under the UNFCCC, including the broader climate-resilience agenda and the protection and enhancement of carbon sinks under Article 5 of the Paris Agreement. In addition, the project is aligned with the **Agriculture Development Strategy 2025–2030**, particularly the objectives related to sustainable and climate-resilient agricultural production, organic and diversified farming, stronger extension services, and ecological balance in agricultural development.

The project is also timely because it builds on the momentum of ongoing government reforms and donor-supported initiatives. It will help operationalise the policy framework by strengthening institutional capacity, creating practical EbA tools and provincial planning frameworks, supporting sustainable finance and local livelihoods, and generating knowledge that can inform future adaptation planning and implementation across the country. In this way, it contributes to Lao PDR’s wider efforts to pursue a **green economy transition** and to mainstream climate resilience into development decision-making at national and subnational levels.

Conformity with existing national strategies and plans	
Strategy/Plan	Conformity with the proposed project
National Adaptation Plan (2025)	The project directly supports NAP implementation by translating national adaptation priorities into operational EbA tools, provincial EbA plans, and local landscape interventions. It strengthens the institutional and technical basis for implementation at national, provincial and district levels.
National Strategy on Climate Change (2024)	The project contributes to the strategy’s emphasis on climate resilience, ecosystem-based approaches, and cross-sectoral coordination by integrating EbA into planning, implementation, financing and knowledge systems.
Decree on Climate Change (2019)	The project operationalises the Decree by mainstreaming climate adaptation into planning, governance and decision-making, particularly through provincial regulations, institutional coordination, and climate-risk-informed planning tools.
National Biodiversity Strategy and Action Plan (NBSAP)	The project supports biodiversity conservation, ecosystem restoration, watershed protection, and inclusive governance, all of which are central to the NBSAP’s objectives. It also strengthens biodiversity-friendly land and resource management through EbA.
NAPA (2009)	The project builds on Lao PDR’s earlier adaptation priorities by advancing practical, ecosystem-based responses to climate risk in vulnerable landscapes.
Agriculture Development Strategy 2025–2030	The project reinforces climate-resilient, sustainable and environmentally balanced agriculture by promoting agroforestry, climate-smart agriculture, watershed restoration, and community-based livelihood models.

MAE Vision towards 2030

The project is aligned with the vision for greener, more resilient and more sustainable development through stronger environmental governance, landscape restoration and inclusive adaptation.

The project contributes directly to the **Kunming-Montreal Global Biodiversity Framework (KM-GBF)**, especially **Goals A, B and D**, and to **Targets 2, 3, 14, 19, 21 and 22**, as relevant to the project design. The project also contributes to the CBD and the UNFCCC by supporting ecosystem resilience, biodiversity conservation, adaptation planning, and climate-resilient livelihoods. Its alignment with NDC 3.0 further strengthens the link between biodiversity, adaptation and carbon sink protection.

Conformity with Paris Agreement and KM-GBF

Strategy/Plan	Conformity with the proposed project
NDC 3.0 and Paris Agreement commitments	The project supports national climate commitments by enhancing resilience, strengthening carbon sinks through restoration, and promoting ecosystem-based solutions that also provide mitigation co-benefits.
KM-GBF Goal A	The project strengthens ecological connectivity and ecosystem health in climate-vulnerable upper watershed landscapes.
KM-GBF Goal B	The project links ecosystem restoration with sustainable livelihoods, climate resilience and watershed services.
KM-GBF Goal D	The project strengthens governance, tools, financing and learning systems needed for effective EbA delivery.
Target 2	The project will improve management of 900 hectares PA, and restore-rehabilitate 5,000 hectares through passive restoration and agroforestry-based afforestation.
Target 3	The project improves the condition and management of key watershed landscapes that are important for biodiversity and resilience.
Target 14	EbA is mainstreamed into provincial regulations, planning tools and investment roadmaps.
Target 19	The project leverages sustainable finance, blended finance and private sector engagement for EbA delivery.
Target 21	The project develops an EbA decision-support tool, knowledge products and learning systems.
Target 22	The project embeds GESI-responsive planning, community participation, and targeted support for women and ethnic groups.

Additionally, the project is consistent with **UNDP’s Strategic Plan (2022–2025)** and **UNDP’s Nature Pledge**. It contributes to UNDP’s agenda on **inclusive, nature-positive development**, resilience building, and gender equality by supporting climate-adaptive livelihoods, strengthening local governance, and improving access to knowledge and finance. It also aligns with UNDP’s emphasis on **digital transitions**, through the proposed EbA tool and knowledge platform, and with its focus on **leaving no one behind**, through GESI-responsive design and participation of women, ethnic communities and vulnerable households.

UNDP’s Accelerator Lab will also provide opportunities to capture and utilize knowledge specific to support EbA delivery plus cross-learning opportunities for broadening stakeholder engagement in agriculture, forestry and related sectors. In some countries, it is currently piloting and testing a “Crowd Intelligence” platform that would allow sourcing data from individuals, customary landowners, farmers and organizations to develop a database and interface which identifies and measures impact of invasive alien species on the Lao environment. The initiative envisions a national, inter-sectoral Digital Knowledge Portal to facilitate research and decision-making for watershed health. It would integrate new research, survey data, and crowdsourced information into a unified platform. A similar approach will be proposed/piloted for Lao PDR within Component 3 of this project.

D. POLICY REQUIREMENTS

Gender Equality and Women's Empowerment

We confirm that gender dimensions relevant to the project have been addressed during Project Preparation as per GEF Policy and are clearly articulated in the Project Description (Section B).

Yes

1) Does the project expect to include any gender-responsive-measures to address gender gaps or promote gender equality and women's empowerment?

Yes

If the project expects to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment, please indicate in which results area(s) the project is expected to contribute to gender equality:

Closing gender gaps in access to and control over natural resources;

Yes

Improving women's participation and decision-making; and/or

Yes

Generating socio-economic benefits or services for women.

Yes

2) Does the project's results framework or logical framework include gender-sensitive indicators?

Yes

Stakeholder Engagement

We confirm that key stakeholders were consulted during Project Preparation as required per GEF policy, their relevant roles to project outcomes has been clearly articulated in the Project Description (Section B) and that a Stakeholder Engagement Plan has been developed before CEO endorsement.

Yes

Select what role civil society will play in the Project

Consulted only; Yes

Member of Advisory Body; Contractor; Yes

Co-financier;

Member of project steering committee or equivalent decision-making body ; Yes

Executor or co-executor;

Other (Please explain)

Private Sector

Will there be private sector engagement in the project?

Yes

And if so, has its role been described and justified in section B project description?

Yes

Environmental and Social Safeguards

We confirm that we have provided information regarding Environmental and Social risks associated with the proposed project or program, including risk screenings/ assessments and, if applicable, management plans or other measures to address identified risks and impacts (this information should be presented in Annex E).

Yes

Please provide overall Project/Program Risk Classification

Overall Project/Program Risk Classification

PIF	CEO Endorsement/Approval	MTR	TE
Medium/Moderate	High or Substantial		

E. OTHER REQUIREMENTS

Knowledge management

We confirm that an approach to Knowledge Management and Learning has been clearly described during Project Preparation in the Project Description and that these activities have been budgeted and an anticipated timeline for delivery of relevant outputs has been provided.

Yes

Socio-economic Benefits

We confirm that the project design has considered socio-economic benefits to be delivered by the project and these have been clearly described in the Project Description and will be monitored and reported on during project implementation (at MTR and TER).

- At least 2,500 IPLC households will directly benefit through improved primary landscape/conservation and management, improved, agroforestry and ecotourism benefits derived from sustainable nature-based activities, aquaculture, diversified livelihood improvements and improved ecosystem services.
- Improved conservation of terrestrial forest PAs, community production practices will enhance the ecological value of the respective ecosystems for community benefits.
- Improved access to basic goods and technical services, technology and improved livelihood economy related practices, as well as diversification of livelihoods and forest-based products will ensure more livelihood options and better prices and income.
- The focus on addressing gender inequality wherein various initiatives, such as promotion of alternative livelihood options, participation of women in decision-making and various local conservation and sustainable activities are proposed. The project envisages more gender equality in context of sex ratio, decision making powers, ownership and control on natural resources and women leadership as well as participation;
- A reduction in the resource use conflicts and increase in effective implementation of sustainable resource use practices.
- Incremental funding through EbA measures will protect critical biodiversity hotspots and provide for improved and diversified livelihoods and incomes and a sustainability of such investments beyond the life of the project;
- Incremental funding through new and innovative financial measures will protect critical forest ecosystems and provide for improved and diversified livelihoods and incomes and a sustainability of such investments beyond the life of the project;
- Stable or improved populations of forest species and improved terrestrial ecosystems will greatly enhance local community experiences for increasing potential for future ecotourism and community financial benefits.

ANNEX A: FINANCING TABLES

GEF Financing Table

Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	Grant / Non-Grant	GEF Project Grant(\$)	Agency Fee(\$)	Total GEF Financing (\$)
UNDP	LDCF	Lao PDR	Climate Change	LDCF Country allocation	Grant	6,192,694.00	588,306.00	6,781,000.00
Total GEF Resources (\$)						6,192,694.00	588,306.00	6,781,000.00

Project Preparation Grant (PPG)

Was a Project Preparation Grant requested?

true

PPG Amount (\$)

200000

PPG Agency Fee (\$)

19000

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	PPG(\$)	Agency Fee(\$)	Total PPG Funding(\$)
UNDP	LDCF	Lao PDR	Climate Change	LDCF Country allocation	200,000.00	19,000.00	219,000.00
Total PPG Amount (\$)					200,000.00	19,000.00	219,000.00

Please provide Justification

Sources of Funds for Country Star Allocation

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Sources of Funds	Total(\$)
Total GEF Resources					0.00

Focal Area Elements

Programming Directions	Trust Fund	GEF Project Financing(\$)	Co-financing(\$)
CCA-1-1	LDCF	2,167,443.00	10038809
CCA-1-2	LDCF	928,904.00	4302347
CCA-1-3	LDCF	1,238,539.00	5736462
CCA-1-4	LDCF	1,857,808.00	7222382
Total Project Cost		6,192,694.00	27,300,000.00

Confirmed Co-financing for the project, by name and type

Please include evidence for each co-financing source for this project in the tab of the portal

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
Civil Society Organization	GIZ (GCF funded)	In-kind	Recurrent expenditures	7000000

Donor Agency	ADB	In-kind	Recurrent expenditures	1000000
GEF Agency	UNDP	In-kind	Recurrent expenditures	1000000
GEF Agency	UNICEF	In-kind	Recurrent expenditures	2300000
Donor Agency	World Bank (GFLL Project)	In-kind	Recurrent expenditures	7000000
Private Sector	TBC at Project Inception upon completion of company due diligence after the Strategic Feasibility Study is completed in Year 1.	Grant	Investment mobilized	
Total Co-financing				27,300,000.00

Please describe the investment mobilized portion of the co-financing

Co-financing: Private sector: TBD

- The Recipient Country Government, through MAE and the Provincial Governments of Oudomxay, Xiengkhouang, and Phongsaly, all offer in-kind resources for recurring expenditures, derived from parallel programs related to watershed restoration-rehabilitation and climate smart agriculture. This includes \$7,000,000 from the donor World Bank funded “Governance, Forest Landscapes and Livelihoods – Northern Lao PDR (GFLL) project.
- GIZ offer USD7M in co-financing through the project entitled “Climate Protection through Avoided Deforestation (CliPAD) funded by the Green Climate Finance and MBZ. The project will be implemented until 2027 under the responsibility of MAE.
- Asian Development Bank (ADB) offer US\$10M in co-financing through the “Sustainable Agrifood System Sector Project”. Areas of complementarity include capacity building for government officials on sustainable environmental adaptation, support for community-level gender equality and social inclusion, development of sustainable financing schemes, value chain assessments, community-based enterprises with climate-smart agriculture training, and community-based natural resource monitoring.
- UNDP Country Office of Lao PDR in partnership with the Government of Lao PDR (through the Dept of Environment) confirm USD 1,000,000 in parallel co-financing through the project titled “Strengthening Disaster Preparedness through the Establishment of Evacuation Centers” funded by the Government of Japan.
- UNICEF confirm USD 2,300,000 in parallel co-financing through the projects entitled “Climate Resilient WASH Programme”, “Safe Water campaigns” and “WASH in Schools”
- Investment to be mobilised: As part of the implementation of Output 2.2, the project aims to mobilise at least USD 200,000 in financing from private sector partners (TBD upon the completion of company due diligence after the Strategic Feasibility Study is completed in Year 1). This funding will be secured during the project implementation through sustainable financing mechanisms such as private CSR funds, blended finance, and REDD+ initiatives. The funds will support 'conservation communities' in implementing EbA solutions within the project's landscapes. Potential private sector companies will be closely engaged during the PPG phase to secure co-financing commitments.

Of note, co-financing will be closely monitored on a bi-annual basis through the standard project reporting mechanisms.

ANNEX B: ENDORSEMENTS

GEF Agency(ies) Certification

GEF Agency Type	Date	Project Contact Person	Phone	Email
GEF Agency Coordinator	12/18/2025	Nancy Bennet, Executive Coordinator		nancy.bennet@undp.org
Project Coordinator	12/18/2025	Samar Taha, Regional Technical specialist		samar.taha@undp.org

Record of Endorsement of GEF Operational Focal Point (s) on Behalf of the Government(s):

Please attach the Operational Focal Point endorsement letter(s) with this template.

Name of GEF OFP	Position	Ministry	Date (MM/DD/YYYY)
Ms. Phakkavanh Phissamay	Director General, Department of Planning and Finance	Ministry of Natural Resource and Environment	8/16/2024

ANNEX C: PROJECT RESULTS FRAMEWORK

Please indicate the page number in the Project Document where the project results and M&E frameworks can be found. Please also paste below the Project Results Framework from the Agency document.

This project will contribute to the following Sustainable Development Goal (s): SDG 1 “No Poverty”; SDG 2 “No Hunger”; SDG 3 “Good Health and Well-being”; SDG 5 “Gender Equality”;

SDG 6 “Clean Water and Sanitation”; SDG 9 “Industry, Innovation and Infrastructure”; SDG 10 “Reduced Inequalities” by increasing incomes of smallholder’s farmers; SDG 12 “Responsible Consumption and Production”; SDG 15 “Life on Lands”.

This project will contribute to the following country outcome (UNSDCF/CPD, RPD, GPD):

United Nations Sustainable Development Cooperation Framework (UNSDCF) 2021-2026, By 2026, people, especially the most vulnerable and marginalized, and institutions will be better able to sustainably access, manage, preserve and benefit from natural resources and promote green growth that is risks informed and disaster and climate resilient. / CPD Output 2.1. State authorities develop policies and guidelines that improve natural resources management, disaster risk management and resilience to climate change. Output 2.2. Local authorities have enhanced capacities to implement integrated natural resources management and DRR systems. Output 2.3. Vulnerable rural communities participate in protected area management and conservation of ecosystems and wildlife and increase resilience to natural hazards-induced disasters and climate change.

	Objective and Outcome Indicators	Baseline ¹ ⁵⁶	Mid-term Target ² ⁵⁷	End of Project Target
Project Objective:	<i>Enhancing resilience and sustainable livelihoods in the watershed areas of the Northern Lao PDR through acceleration of the integration of ecosystem-based adaptation (EbA) solutions at the national and subnational levels</i>			
	Indicator 1: Mandatory LDCF Core Indicator 1: # direct project beneficiary individuals that will	0	188,824 individuals	755,296 individuals

	receive targeted support, disaggregated by gender as co-benefit of GEF investment.		Male: 94,412 Female: 94,412	Male: 378,898 Female: 378,898
	Indicator 2: # national and subnational government agencies that have formally adopted the EbA tool for use in their planning or decision-making processes	0	0	At least 4 agencies formally adopted the EbA tool for use in their planning or decision-making processes.
	Indicator 3: Greenhouse Gas Emissions Mitigated into the future (after the project) outside of AFOLU sector (metric ton of CO2e)	0	0	1,408,300 metric tCO2e
Project Component 1	Enhancing climate adaptation governance to integrate EbA solutions			
Project Outcome 1: Strengthened national and provincial governance mechanisms, leading to improved coordination, planning and implementation capacities to integrate ecosystem-based climate adaptation	Indicator 4: # Number of national EbA tool/applications in operation, leading to improved decision-making processes, programming and implementation of EbA solutions at the national and local levels.	0	One pilot tool designed but not in official operation.	One national EbA tool/application in operation and leading to improved decision-making processes, programming and implementation of EbA solutions at the national and local levels
	Indicator 5: Mandatory LDCF Core Indicator 3: # Number of provincial regulations/policies by the provincial governments promoting integration of EbA solutions into government programs/planning documents.	0	Three draft regulations/policies prepared for provincial governments promotes integration of EbA solutions	Adoption of three provincial regulations/policies by the provincial governments promotes integration of EbA solutions into government programs/planning documents.
	Indicator 6: Mandatory LDCF Core Indicator 4: # Number of EbA plans produced including financing roadmaps for the implementation) in the target provinces designed to enhance local resilience to climate change.	0	At least 1 EbA Plan (s) and financing roadmaps prepared and adopted.	Adoption of three EbA plans (including financing roadmaps for the implementation) in the target provinces.
	Indicator 7: Mandatory LDCF Core Indicator 3: # Number of government personnel (50% being women) from relevant national and sub-national government institutions with improved capacity (as measured by increased in capacity score) to enhance government's capacity to operationalize the EbA tools and develop EbA plans/financing roadmaps.	0	At least 60 government personnel (50% being women) from relevant national and sub-national government institutions with improved capacity to operationalize the EbA tool and develop EbA plans/financing roadmaps.	At least 152 government personnel (50% being women) from relevant national and sub-national government institutions with improved capacity to operationalize the EbA tool and develop EbA plans/financing roadmaps.
Outputs to achieve Outcome 1	<p>Output 1.1. National level remote-sensing-based tool/application developed for assessing close to real-time climate risk and vulnerability to design comprehensive local EbA solutions;</p> <p>Output 1.2. Provincial regulations/policies directing the integration of EbA approaches in government programs/planning documents;</p> <p>Output 1.3. Comprehensive GESI-responsive EbA for the target provinces (considering future climate risks and vulnerability), with adaptation financial roadmaps and investment plans included;</p> <p>Output 1.4. Capacity training for key government officials at the national and sub-national levels on the utilization of EbA tool (Output 1.1.) and development of EbA plans (Output 1.3).</p>			
Project Component 2	Advancing EbA application and financing at the local level			
Outcome 2: More effective, coordinated and integrated implementation and financing of ecosystem-based solutions for adaptation (EbA) in the northern Lao PDR watershed	Indicator 8: Mandatory LDCF Core Indicator 2: Area of critical PA and watershed outside PA brought under improved management, restoration (passive/natural restoration) and rehabilitation (agroforestry-based afforestation) through application of EbA	0 ha	450 ha of critical protected area (150 ha per District) under improved management	900 ha of critical protected area (300 ha per District) under improved management

landscapes, strengthening community resilience and livelihoods	approaches in the target districts, strengthening local resilience to climate hazards.		2,500 ha of critical watershed areas brought under restoration (through passive/natural restoration) and rehabilitation (through agroforestry-based afforestation).	5,000 ha of critical watershed areas brought under restoration (through passive/natural restoration) and rehabilitation (through agroforestry-based afforestation).
	Indicator 9: Number of conservation households and individuals directly benefiting from EbA approaches in the target districts to strengthen local resilience to climate hazards. (of which 50% being ethnic peoples and 50% being women)	0	1,250 conservation households (at least 50% being ethnic people households), directly benefiting at least 6,250 individuals (of which 50% are women)	2,500 conservation households (at least 50% being ethnic people households), directly benefiting at least 12,500 individuals (of which 50% are women)
	Indicator 10: Amount of sustainable financing mobilised to support the implementation of EbA for conservation households.	US\$ 0	At least US\$ 50,000 sustainable financing is mobilised to support the implementation of EbA for the conservation households	At least US\$ 200,000 sustainable financing is mobilised to support the implementation of EbA for the conservation households
	Indicator 11: % increase in the income against baseline of the conservation households through enhanced market linkages, climate smart agriculture/agro-forest practices, and community enterprises, leading to improved financial resilience of the target communities.	0%	10% increase in the income against baseline of the conservation households through enhanced market linkages, climate smart agriculture/ agro-forest practices, and community enterprises, leading to improved financial resilience of the target communities.	20% increase in the income against baseline of the conservation households through enhanced market linkages, climate smart agriculture/ agro-forest practices, and community enterprises, leading to improved financial resilience of the target communities.
Outputs to achieve Outcome 2	<i>Output 2.1. Support for 'conservation communities' to implement GESI-responsive integrated EbA solutions (agro-forest-oriented watershed restoration and rehabilitation) in the target districts; Output 2.2. Sustainable financing schemes (from private CSR fund, blended, REDD+, etc.) leveraged for the target 'conservation communities' to implement EbA solutions (in relation to Output 2.1); Output 2.3. Assessment reports on potential market linkages built upon value chain analysis for community's sustainable agro-forest and/or NTFP products (in relation to Outputs 2.1 and 2.2.); Output 2.4. GESI-responsive community-based enterprises established to strengthen conservation communities' livelihoods, including provision of climate-smart agriculture/agroforestry practices training (in relation to Output 2.3); Output 2.5 GESI- responsive community-based natural resource monitoring.</i>			
Project Component 3	Knowledge Management, gender and social inclusion			
Outcome 3: Increased public understanding and knowledge of EbA solutions, financing and implementation through effective lessons documentation and sharing at both national and sub-national levels.	Indicator 12: % improvement in knowledge/public awareness as measured by KAP score of EbA design/financing/application among stakeholders through development and dissemination of at least ten GESI-oriented knowledge/communication products and three peer-to-peer learning workshops (community of practice).	0	At least 10% improvement (with at least 50% of which represent women)	At least 30% improvement (with at least 50% of which represent women)
	Indicator 13: % project expenditure spent on the FSP planned activities demonstrated through established project-level monitoring and evaluation procedures facilitating systemic and adaptive project management, implementation-monitoring, and sustainability.	0%	100%	100%
	Indicator 14: % project risks monitored, responded to periodically and systematically addressed through project-level Grievance Redress Mechanism and effective implementation of Environmental and Social Safeguards.	0%	100%	100%
Outputs to achieve Outcome 3:	<i>Output 3.1. GESI-responsive stakeholder engagement, communication and outreach strategies, tailored to specific entities;</i>			

Output 3.2. GESI-focused knowledge products and communication materials, conferences, and events at national and sub-national levels to disseminate the project's best practices and lessons learned;

Output 3.3. Project-level M&E mechanism enables effective project management and monitoring, and delivery of project impacts and sustainability;

Output 3.4. Effective application of the Environmental and Social Management Safeguard procedures to facilitate inclusive and gender-responsive participation of Ethnic Peoples and Local Communities (EPLCs).

[1] Baseline, mid-term and end of project target levels must be expressed in the same neutral unit of analysis as the corresponding indicator. Baseline is the current/original status or condition and needs to be quantified. The baseline can be zero when appropriate given the project has not started. The baseline must be established before the project document is submitted to the GEF for final approval. The baseline values will be used to measure the success of the project through implementation monitoring and evaluation.

[2] Target is the change in the baseline value that will be achieved by the mid-term review and then again by the terminal evaluation.

ANNEX D: STATUS OF UTILIZATION OF PROJECT PREPARATION GRANT (PPG)

Provide detailed funding amount of the PPG activities financing status in the table below:

Project Preparation Activities Implemented	GETF/LDCF/SCCF Amount (\$)		
	Budgeted Amount	Amount Spent To date	Amount Committed
Contractual Services-Companies	9,000.00	4,500.00	4,500.00
International consultants	68,000.00	52,136.00	15,864.00
Local consultants	62,000.00	61,760.13	239.87
Supplies	2,500.00		2,500.00
Training, workshop and conference	30,000.00	24,813.92	5,186.08
Travel	28,500.00	15,117.37	13,382.63
Total	200,000.00	158,327.42	41,672.58

ANNEX E: PROJECT MAP AND COORDINATES

Please provide geo-referenced information and map where the project interventions will take place

Location Name	Latitude	Longitude	GeoName ID
Phongsaly Province	21.68	102.10	

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Xiangkhouang Province	19.61	103.73	

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Boun Neua District	21.644	101.903	

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Lah District	20.87	102.11	

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Phaxay District	19.2581	103.0907	

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Oudomxay Province	20.49	101.89	

Location Description:

Activity Description:

Please provide any further geo-referenced information and map where project interventions are taking place as appropriate.

a) Project Geography

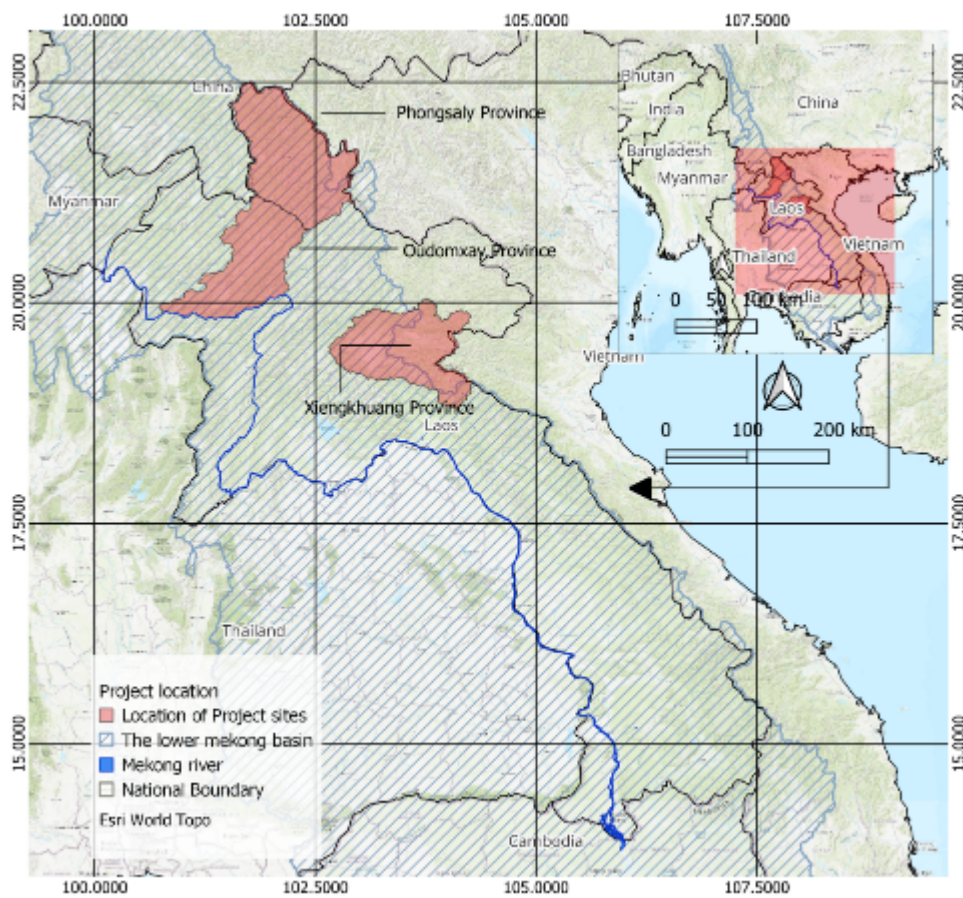


Figure A. Target Provinces

- The geographic coordinates for Phongsaly Province, Lao PDR are approximately 21.68° N latitude, 102.10° E longitude.
- The approximate geographic coordinates for Xiangkhouang Province (Lao PDR) are 19.61° N latitude, 103.73° E longitude.
- The approximate geographic coordinates for Oudomxay Province in Lao PDR are 20.49° N latitude, 101.89° E longitude

ANNEX F: ENVIRONMENTAL AND SOCIAL SAFEGUARDS SCREEN AND RATING

Attach agency safeguard datasheet/assessment report(s), including ratings of risk types and overall project/program risk classification as well as any management plans or measures to address identified risks and impacts (as applicable).

Title

GEFID11695_PIMS9814_Lao_Annex 5 SESP_20 May 2026

GEFID11695_PIMS9814_Lao_Annex 8 Stakeholder Engagement Plan_8 Mar 2026 1

GEFID11695_PIMS9814_Lao_Annex 9 ESMF_5 Mar 2026_JD LB 2

ANNEX G: BUDGET TABLE

Please upload the budget table here.

Expenditure Category	Detailed Description	Component (USDeq.)			Sub-Total	M&E	PMC	Total (USDeq.)	Responsible Entity (Executing Entity receiving funds from the GEF Agency) [1]
		Component 1	Component 2	Component 3					
Equipment	IT Equipment: 1) Laptop computer, printer & accessories for National, Provincial/District staff to support climate adaptation governance to integrate EbA solutions - 4 sets for each office; 2) Software and various IT accessories for National, Provincial/District staff - 1 set for each office; 3) 6 digital cameras and various accessories for National and Provincial/District offices - 1 set for each office	49,950.00	49,950.00	49,950.00	149,850.00			149,850.00	DOE
Equipment	Materials and Goods Support materials for the EbA tool (online database / server costs etc - \$6,000),	22,000.00			22,000.00			22,000.00	DOE

	<p>EbA Plan production (\$10,000) or specific requirements for translation for ethnic people to support the effective delivery of EbA plan or tool communication within the 3 Districts as required (\$6,000). Total: \$22,000</p>								
Equipment	<p>Materials and Goods: For Activity 2.1.1, 2.2.2 and 2.2.3: Support for Conservation Communities in Phaxay District (Xiengkhuang Province), Lah District (Oudomxay Province) and Boun Neua District (Phongsaly Province) – Sub-task c: Implementation of EbA Interventions . The budget assumes up to five Ecosystem-based Adaptation (EbA) measures identified through the Strategic Feasibility Study (SFS) of each district, with an estimated material cost of \$68,025 for items such as seeds, saplings, and construction materials. The total allocation per district is \$340,125</p>	1,020,375.00			1,020,375.00			1,020,375.00	DOE

	(calculated as five measures at \$68,025 each), and specific materials will be confirmed during the SFS process in Year 1.								
Equipment	Equipment and Furniture: office equipment National and Provincial/District Office - 1 set for each office (x4) @ \$5,000 = \$20,000				-		20,000.00	20,000.00	DOE
Equipment	Communications and AV equipment (projector) costs for Project Management Office and District Offices (for 3 District offices plus 1 national office)				-		12,000.00	12,000.00	DOE
Equipment	IT Equipment: Laptop computer, printer & accessories for PMU staff - 1 set for National office (x5 staff) @ \$5,000 = (5 x \$5,000) = \$25,000 Software and various IT accessories - 1 set for National office = \$5,000 *Note – PC includes desktop, notebook and tablet computers; some flexibility is required in relation to variable local situation"				-		30,000.00	30,000.00	DOE

<i>Subtotal Equipment (UNDP does not have Goods category ; therefore, the Equipment is used to ensure the eligibility and validity of expenditures reported from the UNDP side)</i>		71,950.00	1,070,325.00	49,950.00	1,192,225.00	-	62,000.00	1,254,225.00	
Contractual services-Individual	International Technical Specialist to provide technical oversight for Components 1-3	183,145.00	183,145.00	183,145.00	549,435.00			549,435.00	DOE
Contractual services-Individual	National Project Coordinator to provide daily coordination for Components 1-3 and PMC	45,000.00	45,000.00	45,000.00	135,000.00		45,000.00	180,000.00	DOE
Contractual services-Individual	National Social and Environmental Standards Specialist to oversee implementation of ESMF for Components 1-3 and M&E	29,256.00	29,256.00	29,256.00	87,768.00	29,255.00		117,023.00	DOE
Contractual services-Individual	National Gender and Stakeholder Specialist to oversee implementation of ESMF for Components 1-3 and M&E	29,256.00	29,256.00	29,256.00	87,768.00	29,255.00		117,023.00	DOE
Contractual services-Individual	National Project Associate to provide support for Components 1-3 and PMC	27,810.00	27,810.00	27,810.00	83,430.00		27,810.00	111,240.00	DOE

Contractual services-Individual	Technical consultant - International Agro-forestry Value Chain & Enterprise Development Expert	37,500.00	112,500.00		150,000.00			150,000.00	DOE
Contractual services-Individual	Technical consultant - International Ecosystem Based Adaptation and Planning Expert	37,500.00	112,500.00		150,000.00			150,000.00	DOE
Contractual services-Individual	Technical consultant - International Consultant for MTR/TE				-	60,000.00		60,000.00	UNDP
Contractual services-Individual	Technical consultant - National Communication Consultant	22,500.00	22,500.00	22,500.00	67,500.00			67,500.00	DOE
Contractual services-Individual	Technical consultant - National Ecosystem-based Adaptation (EbA) Expert	80,000.00	80,000.00	80,000.00	240,000.00			240,000.00	DOE
Contractual services-Individual	Technical consultant - National Value Chain & Enterprise Development Expert	80,000.00	80,000.00	80,000.00	240,000.00			240,000.00	DOE
Contractual services-Individual	Technical consultant - National Consultant for MTR/TE				-	32,000.00		32,000.00	UNDP
<i>Subtotal Contractual Services-Individual (For project staff, UNDP reports these costs under Contractual Services - Individual. The Salary and Benefits/ Staff Costs category</i>		571,967.00	721,967.00	496,967.00	1,790,901.00	150,510.00	72,810.00	2,014,221.00	

<i>is used only for UNDP staff personnel who are not directly funded by the project budget)</i>									
Contractual services-Company	Contractual Services for Firm/University (EbA Training) - Years 4 and 5	100,000.00			100,000.00			100,000.00	DOE
Contractual services-Company	Contractual Services for Firm (EbA Tool Design) - Years 1 to 3	100,000.00			100,000.00			100,000.00	DOE
Contractual services-Company	Contractual Services for Firm (to produce 3 Provincial EbA Plans and supporting regulations)	120,000.00			120,000.00			120,000.00	DOE
Contractual services-Company	Contractual Services for Firm (\$130,000) to undertake and complete the Strategic Feasibility Study (Year 1) plus circa separate 6 Subcontractors (2 per District) for EbA Agroforestry measure implementation (across all 3 Districts) including incorporation of all social and environmental risk management activities A. Phaxay District EbA interventions (\$265,000) over 4 Years - Activity 2.1.1) to include in addition all required SES targeted assessments		925,000.00		925,000.00			925,000.00	DOE

	B. Lah District EbA interventions (\$265,000) over 4 Years - Activity 2.1.2) to include in addition all required SES targeted assessments C. Boun Neua District EbA interventions (\$265,000) over 4 Years - Activity 2.1.1) to include in addition all required SES targeted assessments								
Contractual services-Company	Contractual Service for a firm to conduct Webinar series and circa 6 separate group learning Exchange Visits to other EbA project sites Y2-5 \$76,000 Contractual Service for a firm for awareness campaigns & social media Y1-5 \$70,000			146,000.00	146,000.00			146,000.00	DOE
Subtotal Contractual Services-Company		320,000.00	925,000.00	146,000.00	1,391,000.00	-	-	1,391,000.00	
Training, Workshops, Meetings	The cost of a series of training workshops for all National, Provincial and District level government staff, capacity building and safeguard related activities for MAE and other non-governmental stakeholders on the EbA	285,000.00			285,000.00			285,000.00	DOE

	<p>Tool (Output 1.1 = 9 events @ \$10,000 per event = \$90,000) plus all EbA regulation (Output 1.2 = 9 events @ \$10,000 per event = \$90,000) and EbA Plans (Activity 1.3.2: Consultation on the Draft EbA Plans for the 3 Provinces (= 9 events @ \$5,000 per event = \$45,000); supporting capacity development activities for EbA tool deployment (Activity 1.4.1: Develop a EbA training package = (= 9 events @ \$5,000 per event = \$45,000). Activity 1.4.2: Deliver EbA Training to 100 Government Officials Workshops (30% being women = 3 events @ \$5,000 each = \$15,000).</p>							
<p>Training, Workshops, Meetings</p>	<p>Training workshops for Activities 2.2.2 and 2.3.1: Organize multi-stakeholder forums to discuss opportunities for PPPs and agro-forestry projects focused on EbA (3 separate events in each District</p>		<p>175,000.00</p>		<p>175,000.00</p>		<p>175,000.00</p>	<p>DOE</p>

	(9 events). Events required for completion of the Strategic Feasibility Study (SFS) = 6 events (2 per District at inception and final reporting stages)). 3 separate District events to support delivery of Activities 2.1.1, 2.1.2 and 2.1.3 (\$175,000 over 5 year)								
Training, Workshops, Meetings	Training for villagers, private sector, District officials, Provincial officials (including 40% women and ethnic people) and local travel for all project staff and participants (USD\$5k per year per Province = \$75,000). Bilingual (Lao/English) lessons and best practice database and publications (\$35,000); Regional exchange visits to events such as Global EbA platforms etc (\$25,000).			135,000.00	135,000.00			135,000.00	DOE
Training, Workshops, Meetings	Inception Workshop (\$18,000 for Yr1 only) plus workshop related costs for the remaining 4 years at \$7,000 per year.				-		46,000.00	46,000.00	DOE
Subtotal Training, Workshop		285,000.00	175,000.00	135,000.00	595,000.00	-	46,000.00	641,000.00	

<i>ps, Meeting s</i>									
Travel	Travel costs and DSAs for national project staff, government representatives and consultant inputs, consultation meetings, capacity development , gender mainstreaming (15%) and social and environmental risk management (15%) activities. This is strategically costed at USD30,000 per year to cover all activities in Component 1 for all 3 Districts (including safeguards etc). These are estimated to include at least 27 working meetings each year (9 per District) each involving up to 40 project staff and stakeholders.	150,000.00			150,000.00			150,000.00	DOE
Travel	a) Travel needs for the production of the Strategic Feasibility Study (Year 1 = \$30,000 to cover villages within all 3 Districts). b) Travel costs (train and airline tickets from National level to provinces, local vehicle rental and fuel) to support advancing		330,000.00		330,000.00			330,000.00	DOE

	EbA application and financing at the local level (across 3 Districts) - estimated \$6,250 / month (48 months) = \$300,000								
Travel	For all National Consultants to support south-south learning exchanges and training for women and youth (for years 2,3 and 4); for exchange learning visits to global EbA related events or other BD financing project sites prioritizing women and IPLC representatives awareness campaigns and communications and related social and environmental risk management activities (yrs 1 and 5 = combined \$46,000). Costs for exchange learning visits to global BIOFIN or other BD financing project sites prioritising women and IPLC representatives - 2 visits x 8 pax x \$5000 (Y2, Y3)= \$80,000			126,000.00	126,000.00			126,000.00	DOE
Travel	Travel (domestic air and ground travel) associated with all Safeguard				-	21,248.00		21,248.00	DOE

	and M&E related missions to Districts over 5 years plus travel to support the MTR (Y3) and TE (Yr 5) (\$4,550 for 3 Districts per year for 5 years) = \$22,750 For annual (spot check) monitoring of project indicators and safeguards (ESMF) implementation, with annual visits to pilot landscapes: = \$3,498 Total: \$26,248								
Travel	Expenses for PMU related travel - averaging at circa \$8,000/year (Year 1-5)				-		40,000.00	40,000.00	DOE
Travel	Travel for MTR (Y3) and TE (Yr 5) = \$5,000				-	5,000.00		5,000.00	UNDP
Subtotal Travel		150,000.00	330,000.00	126,000.00	606,000.00	26,248.00	40,000.00	672,248.00	
Office Supplies	Supplies: paper, stationery, printer cartridges for all project offices (\$3,000 for first 4 years - \$2,000 for final year)				-		14,000.00	14,000.00	DOE
Subtotal Office Supplies		-	-	-	-	-	14,000.00	14,000.00	
Other Operating Costs	Audio Visual & Print Prod Costs: Training materials for Output 1.1 - (\$4,500), Output 1.2 (\$4,500), Output 1.3 (\$4,500) & Output 1.4 (\$4,500) = \$18,000 Printing costs	26,000.00			26,000.00			26,000.00	DOE

	for EbA Plans (Output 1.3 = \$2,000), EbA Tool Manual (1.1 = \$2,000), EbA Regulations (Output 1.2 = \$2,000) and Training Materials (Output 1.4 = \$2,000) = \$8,000 Total: \$26,000								
Other Operating Costs	Audio Visual & Print Prod Costs: Printing and AV outreach materials for each Districts proposed EbA Activities (\$6,000/year) for 3 Districts = 90,000		90,000.00		90,000.00			90,000.00	DOE
Other Operating Costs	AV & print production costs: Awareness materials for EbA Plans / EbA measure awareness and financing campaigns, circa \$10,000 for each Province (x3) = \$30,000			30,000.00	30,000.00			30,000.00	DOE
Other Operating Costs	Audio Visual: Design and Printing of various project documents for PSC meetings				-		25,000.00	25,000.00	DOE
Other Operating Costs	Annual audit (\$7,000/ year x 5 years).				-		35,000.00	35,000.00	UNDP
<i>Subtotal Other Operating Costs</i>		26,000.00	90,000.00	30,000.00	146,000.00	-	60,000.00	206,000.00	
Grand Total		1,424,917.00	3,312,292.00	983,917.00	5,721,126.00	176,758.00	294,810.00	6,192,694.00	

Please explain any aspects of the budget as needed here

ANNEX I: RESPONSES TO PROJECT REVIEWS

From GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF.

STAP Comment	Agency Response (April 2026)
1. Summary of STAPs views on the project	
<p>STAP welcomes the Lao People's Democratic Republic LDCF project "Promoting climate-resilience through ecosystem-based adaptation (EbA) solutions in the Northern Lao PDR." This is an extremely logical and thoughtful proposal with strong scientific and technical merit. STAP has only minor suggestions for strengthening some aspects of the PPG. These suggestions include designing the project by accounting for context risks, such as climate risks. Laos PDR is expected to experience temperatures above the global average as early as next decade, within the time frame that this project is expected to achieve enduring outcomes. Equally important will be validating assumptions and risks affiliated with rehabilitating or restoring land to a point that results in EbA and Nature-based Solutions (NbS). Assessing the potential of the land is probably necessary in the targeted sites. Thirdly, the proposal has the potential to generate environmental and social benefits via EbA and NbS. STAP recommends designing the project to achieve these benefits, while putting in place sound monitoring systems that create evidence of the impact of EbA and NbS on climate resilience, environment and social outcomes.</p>	<p>We thank STAP for the positive assessment of the project's scientific and technical merit. The PPG and CEO-ER have been strengthened to respond to STAP's recommendations by ensuring that climate and context risks are more explicitly reflected in the project rationale, Theory of Change, risk framework and Component 2 design.</p> <ul style="list-style-type: none"> The revised CEO-ER now draws on the latest NAP/CRVA evidence and district-level landscape analyses to explain how increasing temperatures, rainfall variability, floods, droughts and landslides affect watershed integrity, ecosystem services and community livelihoods in the three target landscapes. To address STAP's recommendation on validating land suitability and assumptions for EbA delivery, the project now includes the Strategic Feasibility Studies under Output 2.1. These studies will be undertaken before site-level implementation to confirm the technical, ecological, social and economic feasibility of proposed restoration, rehabilitation and agroforestry measures. They will assess land potential, climate exposure, ecosystem condition, land/resource access, tenure considerations, safeguards risks, and the suitability of proposed EbA packages for each target district. This will ensure that EbA interventions are not assumed to work uniformly across all watershed areas, but are designed and refined based on site-specific evidence. The project has also been strengthened to generate and monitor adaptation, environmental and social benefits. The revised Results Framework and GEF Core Indicators now quantify expected benefits, including improved management, restoration and rehabilitation of 5,900 ha of climate-vulnerable landscapes, benefits to 755,296 people, direct

engagement of conservation households, increased livelihood resilience, and private sector engagement. Monitoring arrangements under Outputs 2.5, 3.3 and 3.4 will track ecosystem restoration, climate resilience, biodiversity and ecosystem service indicators, livelihood outcomes, gender and ethnic inclusion, safeguards compliance and grievance redress. These provisions will generate evidence on the contribution of EbA measures to climate resilience, environmental outcomes and social benefits, while supporting adaptive management throughout implementation.

2. Project rationale, and project description – are they sound?

The rationale explains the problem clearly, including social drivers, location, the sectors it addresses, and the reasons for focusing on these drivers and regions. It also provides an in-depth description of climate projections and how climate is expected to impact land resources and agricultural crops. As a minor point, the climate descriptions are overly verbose, with 11 pages in the rationale, which can be summarized more cogently in the final project document. STAP notes that the project includes scenarios with and without the project. This is a useful start to defining the project's additionality. As the project is developed, reasoning about how this project will build on the ongoing and past projects (GEF and non-GEF) will be necessary to define and measure the LDCF additionality robustly. Furthermore, it will be important that the PPG analyse lessons about enablers of and barriers to success from these ongoing projects and incorporate this knowledge into this project. STAP also notes that the theory of change is clear, and well explained. Greater attention to assumptions is necessary as they are currently only provided as a general list and not linked to the logic depicted in the theory 2 of change. For example, it is possible that not all land in the targeted watershed(s) can provide ecological benefits to reduce communities' vulnerabilities to the impact of climate change. Furthermore, risks that hinder achieving outcomes, such as climate risks, should be reflected in the theory of change and its components. Building risks, such as climate risks, in the project design, can strengthen enduring outcomes. STAP observes that developing a national climate information platform is a good idea but likely will demand more funds than are allocated in the budget. Given the importance of other components, reallocating funding for this is not justified. It may be more realistic to consider this activity as seed funding with a view to a longer term plan. The proposal includes an exemplary knowledge management component. Besides advancing knowledge by establishing a robust monitoring system that tracks progress toward achieving climate adaptation benefits, this component also includes a strong element of governance. UNDP is committed to putting in place a Grievance Redress Mechanism to empower communities to have a course of action if they believe the project is having a negative effect on them or the environment. STAP supports a Grievance Redress Mechanism process as it builds trust between the communities and the project through equity, transparency, and inclusiveness – key elements underpinning good project design. Thus, given the importance of the Grievance Redress Mechanism to the project's success, STAP encourages developing and explaining it in the PPG. The project is informed by and will advance LAO PDRs' climate policy objectives, and it aligns well with GEF 8

Thank you for the detailed review; we confirm that these recommendations have been incorporated during PPG and reflected in the revised CEO-ER and supporting annexes.

- First, the climate rationale has been revised to be more focused and directly linked to the project design. While the CEO-ER retains the essential evidence on climate hazards, future climate projections, land degradation and livelihood vulnerability, the more detailed district-level climate and landscape information is presented in the landscape analyses and supporting annexes. The final project design therefore uses the climate evidence to justify the selection of the three northern target landscapes and the choice of EbA as the most appropriate response to interacting risks from floods, droughts, landslides, watershed degradation and climate-sensitive livelihoods.
- Second, the project's LDCF additionality has been strengthened by clarifying how the project builds on ongoing and past initiatives rather than duplicating them. The project builds on the NAP process, existing and emerging climate information systems, and ongoing biodiversity, agro-climatic, watershed and community development initiatives, including ADAEBio Phase 2 and CCL-related work. Lessons from these initiatives have informed the barrier analysis and project design, particularly the need to: avoid stand-alone information systems; strengthen provincial institutional uptake; link EbA planning to implementable site-level interventions; and combine restoration with livelihood incentives, finance and market access. The revised project logic therefore demonstrates additionality by connecting governance, EbA planning, implementation, finance, livelihoods and knowledge management into one coherent model.
- Third, the Theory of Change has been revised to better link assumptions, risks and outcomes. The revised ToC now

objectives and the objectives of the LDCF. It promises to enhance policy coherence, and its governance mechanisms give reason to suggest this is likely. The project primarily focuses on adaptation, but the benefits for mitigation and biodiversity also seem likely. Designing with the intent to deliver and measure these co benefits should be considered by the project developers. The PIF has strong intentions for stakeholder engagement, gender equality, and women’s empowerment and elevates these to core components of the design. Unfortunately, the outcomes from Annex I—“Preliminary Stakeholder Engagement Analysis & Plan”—are not reflected in the PIF, which is where they are needed to influence good project design.

explains how the project’s three causal pathways are mutually reinforcing: Component 1 strengthens institutional frameworks, tools and provincial plans; Component 2 translates these enabling conditions into site-level EbA implementation, financing, market linkages and community enterprises; and Component 3 strengthens monitoring, knowledge management, safeguards, stakeholder engagement and learning. The ToC and risk framework now explicitly recognise that not all land will be suitable for all EbA interventions and that climate risks, market fluctuations, stakeholder uptake, policy adoption and sustainable finance assumptions may affect outcomes. These risks are addressed through climate-informed planning, site-specific feasibility assessment, safeguards screening, adaptive management and monitoring.

- Fourth, STAP’s concern on the national climate information platform has been addressed by reframing the proposed system as a complementary EbA decision-support tool, not a new stand-alone national platform. Output 1.1 is designed to build on and link with existing and emerging systems, including CIS, SAMIS and LaCSA, while filling a specific gap in the use of remote-sensing, climate-risk, vulnerability and biophysical information for EbA planning and implementation. This targeted approach avoids duplication and ensures that the budget for Component 1 does not crowd out resources for field implementation under Component 2.
- Fifth, the **Grievance Redress Mechanism**, safeguards and monitoring arrangements have been further developed. Output 3.3 now establishes the project-level M&E system, including tracking of results, gender and stakeholder engagement, safeguards and community participation, while Output 3.4 establishes a functional GRM and evidence-based safeguards compliance system across the target districts. The project-level GRM will be built on **UNDP Lao PDR’s existing Stakeholder Response Mechanism** (<https://www.undp.org/laopdr/stakeholder-response-mechanism>) and will be activated upon project inception, ensuring that communities and other stakeholders have access to a clear, accessible and accountable channel to raise concerns related to project implementation. The project will monitor output, outcome and impact indicators, including ecosystem health and extent, climate resilience, carbon sequestration, GBF contributions and community livelihood outcomes.
- Finally, stakeholder engagement, gender equality and women’s empowerment have been more fully reflected in the project design. The revised CEO-ER embeds inclusive

	<p>participation across the components, including women, ethnic communities and vulnerable households. Component 3 strengthens knowledge systems, stakeholder engagement and inclusive participation, while Output 3.1 includes culturally appropriate communication materials in Lao and relevant ethnic languages, district- and village-level engagement, and behaviour change communication. These revisions ensure that stakeholder engagement and gender/social inclusion are not treated only as annex requirements, but are reflected in the project's implementation logic, monitoring and learning systems.</p>
<p>3. Specific points to be addressed, and suggestions</p>	
<p>1. Plans to develop a national climate information platform would benefit from describing existing information systems. Because spending on such activities typically exceeds budgets, the PPG could consider a mechanism - or ensure that spending on this component will not crowd out other components.</p>	<p>The CEO-ER has been revised to clarify that the project will not establish a new stand-alone national climate information platform. Instead, Output 1.1 will develop a targeted EbA decision-support tool that builds on and complements existing and emerging systems, including the CIS, SAMIS and LaCSA. The tool will fill a specific gap by supporting the use of remote-sensing, climate risk, vulnerability and biophysical information for EbA planning and implementation. This approach avoids duplication, keeps the activity within the allocated budget, and ensures that Component 1 resources do not crowd out field implementation under Component 2. The EbA tool will directly support the development of Provincial EbA Plans and site-level implementation planning.</p>
<p>2. STAP recommends strengthening the theory of change in the following ways: a. Link assumptions to outcomes. Currently, the assumptions are only listed generally. b. Identify risks associated with assumptions. For example, the project assumes that land throughout the target watershed(s) will have the conditions to generate ecosystem services, such as improved soil health, which is important for strengthened climate change adaptive capacity. However, given the current climate projections, the EbA/NbS approaches are at risk of not delivering the expected solutions. We suggest designing the components based on current and future climate risks (e.g. use projections for 2050), and listing in the risk table those residual risks that remain despite good project design – for example, implementation of innovative EbA/NbS, which will require continuous monitoring throughout the project to assess their impact on the communities' climate resilience. 3 c. There are also assumptions and risks surrounding sustainable finance that need to be identified. For example, droughts and floods will impact agricultural productivity and the viability and scaling of sustainable finance. Analyzing the interactions between risks (context, innovation) can help detail these assumptions and risks.</p>	<p>The Theory of Change has been revised to better link assumptions, risks and outcomes across the three causal pathways.</p> <p>The revised ToC recognises that project success depends on several assumptions, including government uptake of EbA tools and policies, suitability of selected sites for EbA interventions, continued community participation, private sector interest, and availability of sustainable finance and markets. It also recognises residual risks associated with these assumptions, including climate variability, droughts, floods, landslides, market fluctuations, and uncertainty around the performance and scaling of innovative EbA and finance models. These risks have been incorporated into project design through the use of NAP/CRVA evidence, future climate scenarios, Strategic Feasibility Studies under Output 2.1, safeguards screening, community-based monitoring under Output 2.5, and adaptive management through Component 3.</p>
<p>3. As suggested above, component 2 needs to be designed to account for climate risks and possibly other drivers of change, such as market fluctuations that hamper agricultural productivity. The project developers could</p>	<p>Component 2 has been substantially revised to account for both climate risks and other drivers of change, including market fluctuations that affect agricultural productivity and livelihood viability.</p>

<p>rely on UNDP’s Human Climate Horizons data for Laos PDR: https://horizons.hdr.undp.org/#/risk/rcp45/LAO</p>	<p>The component now follows a clearer sequence: Output 2.1 establishes conservation community arrangements and implements climate-informed EbA packages; Output 2.2 mobilises sustainable financing for conservation communities; Output 2.3 assesses market linkages, value chains, PPP opportunities and off-take arrangements for agroforestry and NTFP products; Output 2.4 establishes GESI-responsive community-based enterprises based on those market assessments; and Output 2.5 establishes community-based natural resource monitoring.</p> <p>This sequencing ensures that restoration, finance, market access and enterprise development are mutually reinforcing and responsive to climate and market risks.</p>
<p>4. In the risk table, STAP recommends designing the project based on the climate risks analysis, as stated above. STAP understands the risk analysis is attached to an annex, but the results of this analysis need to formulate the interventions even at the PIF stage. Currently, there is no evidence that this analysis has been applied, even minimally at best. The risks that should be listed as context risks are those risks that remain despite good project design. The same is true of innovation risks. For example, the risks of not having support for the policies or plans could form part of the project design by developing the interventions based on the social aspects underpinning the socioecological systems, including values and norms important to the targeted populations. The residual innovation risk stemming from these actions, could be unexpected resistance to adopting a policy despite accounting for cultural norms in the project design. Please refer to STAP’s risk note listed on STAP’s website for further guidance.</p>	<p>The risk framework and project design have been strengthened to reflect climate and contextual risks that remain despite good project design.</p> <p>Climate risk analysis is no longer treated only as annexed background information; it directly informs the project rationale, target landscape selection, Component 2 design and monitoring arrangements. The project now recognises residual context risks such as floods, droughts, landslides, pest outbreaks and market shocks, as well as innovation risks associated with adoption of EbA policies, financing mechanisms and new livelihood models. These risks are addressed through climate-informed site selection, Strategic Feasibility Studies, environmental and social screening, tenure/access screening, FPIC where applicable, community-based monitoring and periodic adaptive management.</p> <p>The project also integrates social and cultural considerations, including local governance structures, traditional knowledge and ethnic community participation, to reduce the risk of resistance or weak adoption.</p>
<p>5. The project has the potential to generate global environmental benefits (e.g., improved biodiversity conservation, improved soil health), socioeconomic benefits, and climate adaptation. STAP recommends designing the project to quantify these benefits and track their progress through good monitoring (component 3). Not only will this contribute to monitoring this project’s LDCF additionality, but it could also advance evidence about the impact of EbA/NbS on environmental and social outcomes. STAP recommends consulting its briefing note on co-benefits.</p>	<p>The revised CEO-ER now quantifies the project’s expected adaptation, environmental and socio-economic benefits through the Results Framework and GEF Core Indicators. The project is expected to improve management, restoration and rehabilitation of 5,900 ha of climate-vulnerable landscapes, enhance resilience for 755,296 beneficiaries, directly engage conservation households, support three policies/plans, train 152 stakeholders, mobilise at least US\$200,000 in sustainable finance, and engage six private sector enterprises. The project also includes mitigation co-benefits through enhanced carbon sequestration from restored and sustainably managed landscapes.</p> <p>Monitoring of these benefits is embedded in Outputs 2.5, 3.3 and 3.4, including indicators on ecosystem restoration, biodiversity and ecosystem services, climate resilience, livelihood outcomes,</p>

	<p>gender and ethnic inclusion, safeguards compliance and grievance redress.</p>
<p>6. The PPG would be strengthened by analysis of lessons about enablers of and barriers to success from related projects and the incorporation of responses to these into the project design</p>	<p>The PPG process analysed lessons from relevant GEF and non-GEF initiatives, including the NAP process, agro-climatic information systems, watershed and biodiversity projects, ADAEBio Phase 2, CCL activities, and other ongoing initiatives in Lao PDR. These lessons informed the project’s barrier analysis and design. Key lessons incorporated include the need to avoid stand-alone information systems, strengthen provincial institutional ownership, ensure site-level feasibility before implementation, connect EbA implementation with livelihood incentives, mobilise finance for conservation communities, and document lessons for replication.</p> <p>The revised project therefore builds on existing initiatives while addressing gaps in coordination, implementation financing, market linkages and knowledge management.</p>
<p>7. The PPG would benefit from information about methods for including stakeholders in the PPG and their involvement in governing the project.</p>	<p>Stakeholder engagement has been strengthened in the CEO-ER and supporting annexes.</p> <p>During PPG, consultations were conducted with national, provincial, district and community stakeholders, including government agencies, conservation communities, women, ethnic groups, NGOs and private sector actors. The revised project design reflects these consultations through participatory planning under Component 2, provincial coordination mechanisms under Component 1, and stakeholder engagement, communication and outreach under Component 3.</p> <p>Governance arrangements have also been clarified through the institutional arrangements section, including the role of the Implementing Partner, Project Steering Committee, PMU, provincial and district authorities, NGOs and private sector actors. The project-level GRM will build on UNDP Lao PDR’s existing Stakeholder Response Mechanism and will be activated upon project inception.</p>
<p>8. The PPG would benefit from clearly describing methods for integrating gender equality and women’s empowerment throughout the project.</p>	<p>The revised CEO-ER strengthens the integration of gender equality and women’s empowerment across project design, implementation and monitoring.</p> <p>The Results Framework includes explicit gender targets, including 50% women among direct beneficiaries and trained government personnel. Component 2 includes gender-responsive participation in conservation community arrangements, financing, enterprise development, climate-smart agriculture/agroforestry training and community-based monitoring. Component 3 strengthens GESI-responsive stakeholder engagement, communication, knowledge products and learning. The Gender Action Plan and project M&E system will track gender-related actions and results, while</p>

	<p>implementation will prioritise women’s participation in training, decision-making, community enterprises and livelihood activities.</p>
<p>DECEMBER 2024 LDCF/SCCF WORK PROGRAM (REFERENCE: GEF/LDCF.SCCF.37/02):</p> <p>COMMENTS FROM COUNCIL MEMBERS</p>	
<p>Germany Comments</p>	
<p>Germany welcomes the proposal which aims to enhance climate-resilience and sustainable livelihoods in the watershed areas of the Northern Lao PDR through acceleration of the integration of EbA at the national and subnational level. Germany especially appreciates the comprehensive multi-level approach, as well as the GESI-responsive stakeholder engagement.</p>	<p>The Agency thanks Germany for its positive feedback and support. The revised CEO-ER has retained and further strengthened the project’s multi-level approach by linking national EbA decision-support and policy frameworks with provincial EbA planning, district-level implementation, and community-based monitoring and livelihood activities. The project’s GESI-responsive approach has also been strengthened through explicit targets for women and ethnic communities, participatory planning, safeguards screening, stakeholder engagement, and inclusive knowledge management.</p>
<p>Germany would like to point out that GIZ is listed as a Civil Society Organization in the cofinancing table. However, GIZ is actually a governmental implementation agency.</p> <p>Additionally, Germany requests clarification on which GIZ project is being referred to for the indicative co-financing.</p>	<p>The Agency thanks Germany for this clarification. The co-financing table has been corrected to ensure that GIZ is classified as a donor agency, rather than as a civil society organisation. The relevant GIZ-supported project or programme linked to the indicative co-financing have also been specified in the final co-financing table and supporting documentation.</p>
<p>Germany points to possible geographical and thematic overlaps with the German cooperation project “Protection and Sustainable Use of Forest Ecosystem and Biodiversity (ProFEB)”, which is active, among other locations, in Oudomxay.</p>	<p>The Agency thanks Germany for identifying the potential overlap with the German cooperation project Protection and Sustainable Use of Forest Ecosystem and Biodiversity (ProFEB).</p> <p>The project will ensure complementarity with ProFEB, particularly in Oudomxay, by coordinating during inception and implementation on geographic coverage, village-level activities, watershed restoration, biodiversity conservation, community engagement, sustainable land management and knowledge exchange. Where overlaps are identified, the project will share spatial planning information, proposed implementation schedules and relevant technical outputs through provincial coordination mechanisms, so that activities are mutually reinforcing and duplication is avoided.</p> <p>The CEO-ER has included ProFEB under the following sections: “Baseline investments and complementary initiatives” and “Coordination with other relevant GEF-financed projects and other initiatives”.</p>
<p>United Kingdom Comments</p>	

Lao PDR is highly vulnerable to climate change due to frequent climate-induced hazards, coupled with low adaptive capacity attributed to poverty, and the high exposure of marginalized communities to these climate-induced hazards. Floods, droughts and storms are the three most frequent climate-induced hazards, impacting millions of people and resulting in high levels of economic losses. Laos is relatively overlooked by the development

community, despite some very poor development indicators, many of which are further threatened by a noticeably-changing climate.

This would be a good project for Laos as UK is the newest dialogue partner to ASEAN in 2021 especially, Ministry of Natural Resource and Environment (MONRE). Laos just completed their ASEAN Chair this month too. You might have seen the news that Lao Deputy Prime Minister and Minister of Foreign Affairs signed the Green Economy Framework MoU with our FS, in the margins of the ASEAN Foreign Ministers' Meeting in Lao PDR in July. This would show the UK commitment to Laos on climate change. Climate Change is having a massive impact in Laos such as a huge flooding a few months ago, it was devastating impact flooding for Laos due to so many dams, hydropower plant and illegal deforestation.

The Agency thanks the United Kingdom for its insights and agrees that Lao PDR's high exposure to floods, droughts, storms and associated livelihood impacts makes this project timely and relevant. The revised CEO-ER has strengthened the climate rationale, drawing on recent climate risk evidence, NAP/CRVA findings and district-level landscape analysis to demonstrate how climate hazards interact with watershed degradation, deforestation, hydropower-related pressures, agricultural vulnerability and limited adaptive capacity. The project responds directly to these challenges through EbA planning, watershed restoration and rehabilitation, sustainable financing, community livelihood support, and strengthened monitoring and knowledge management.

The Agency also thanks the United Kingdom for highlighting the project's relevance to broader regional and bilateral climate cooperation. The project is well aligned with Lao PDR's national adaptation priorities and with wider efforts to promote a green economy transition, including opportunities for cooperation with development partners on climate resilience, nature-based solutions, watershed management and sustainable livelihoods. The project's emphasis on EbA, sustainable financing, knowledge exchange and private sector engagement provides a strong platform for complementarity with regional and bilateral initiatives, including those supporting green economy and climate action in Lao PDR. Opportunities for coordination with relevant UK-supported initiatives will be explored during inception and implementation of the project.