GEF-8 PROJECT IDENTIFICATION FORM (PIF)

TABLE OF CONTENTS

General Project Information

Project Title	
Building resilient livelihoods through nature-based solutions in the Tonle Sap Basin and Siem Reap/Phnom Kulen landscape	
Region	GEF Project ID
Cambodia	11332
Country(ies)	Type of Project
Cambodia	FSP
GEF Agency(ies):	GEF Agency ID
UNDP	PIMS 9682
Executing Partner	Executing Partner Type
Ministry of Environment	Government
GEF Focal Area (s)	Submission Date
Climate Change	10/11/2023
Project Sector (CCM Only)	
Climate Change Adaptation Sector	
Taxonomy	
Influencing models, Strengthen institutional capacity and decision-making, Deploy innovative financial instruments, Transform policy and regulatory environments, Convene multi-stakeholder alliances, Stakeholders, Focal Areas, Land Degradation, Sustainable Land Management, Drought Mitigation, Sustainable Livelihoods, Sustainable Forest, Restoration and Rehabilitation of Degraded Lands, Integrated and Cross-sectoral approach, Ecosystem Approach, Improved Soil and Water Management Techniques, Climate Change, Climate Change Mitigation, Agriculture, Forestry, and Other Land Use, Climate Change Adaptation, Climate resilience, Ecosystem-based Adaptation, Innovation, Least Developed Countries, Private sector, Livelihoods, Climate finance, Forest, Forest and Landscape Restoration, Civil Society, Community Based Organization, Non-Governmental Organization, Academia, Beneficiaries, Type of Engagement, Information Dissemination, Participation, Partnership, Consultation, Private Sector, SMEs, Individuals/Entrepreneurs, Communications, Behavior change, Awareness Raising, Indigenous Peoples, Local Communities, Gender Equality, Gender Mainstreaming, Women groups, Sex-disaggregated indicators, Gender-sensitive indicators, Gender results areas, Access to benefits and services, Participation and leadership, Capacity Development, Knowledge Generation and Exchange, Capacity, Knowledge and Research, Targeted Research, Learning, Indicators to measure change, Theory of change, Adaptive management, Knowledge Generation, Enabling Activities	
Type of Trust Fund	Project Duration (Months)
LDCF	60
GEF Project Grant: (a)	GEF Project Non-Grant: (b)
6,684,703.00	0.00
Agency Fee(s) Grant: (c)	Agency Fee(s) Non-Grant (d)
635,047.00	0.00

Total GEF Financing: (a+b+c+d)	Total Co-financing
7,319,750.00	15,000,000.00
PPG Amount: (e)	PPG Agency Fee(s): (f)
200,000.00	19,000.00
PPG total amount: (e+f)	Total GEF Resources: (a+b+c+d+e+f)
219,000.00	7,538,750.00
Project Tags	
CBIT: No NGI: No SGP: No Innovation: No	

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. The explanation and justification of the project should be in section B "project description".(max. 250 words, approximately 1/2 page)

The Tonle Sap Basin (TSB), an expansive area of economic importance and the cultural heart of Cambodia, is being severely impacted by climate change, with increasing temperatures and shifting rainfall patterns having a major impact on water resources and agricultural productivity, as well as increasing the frequency and intensity of extreme events such as drought and flood. The impacts of climate change are exacerbated by the degradation of forest ecosystems, which is happening at a concerning rate – threatening the regulation of hydrological cycles in the region. As the agroecological landscape is degraded, the critical ecosystem services they provide are being lost, with severe consequences for the sustainability of water resources and the livelihoods they support, as well as the tourism industry, which is a major contributor to the local and national economy. The resultant impacts on natural resource-based livelihoods are driving local communities to adopt maladaptive practices such as agricultural expansion into forest areas, fuelling a negative cycle of degradation in the catchments.

To address climate vulnerability and the drivers of environmental degradation in the TSB and safeguard the natural and cultural heritage of the region, the Government of Cambodia will introduce a systematic and integrated approach to landscape management. This will be implemented through two complementary projects – one positioned under the GEF-8 Integrated Programme for Ecosystem Restoration focussing on the conservation and restoration of forest ecosystems across the TSB, and this LDCF project focussing on building the resilience of communities within the TSB against the increasing impact of flood and drought. Each of these projects will be self-contained and have distinct Outcomes related to the focal areas noted above, with closely aligning Outcomes that maximise overall impact across the landscape in the TSB.

The proposed landscape and watershed management solutions will take a systems-based approach, accounting for three key pillars identified for sustainable investment in Cambodia, namely governance, finance, and people. When underpinned by a foundation of research, knowledge and learning, an approach built on these pillars will ensure that the appropriate enabling environment is created for sustainable and scalable impact, with crosscutting benefits. Improved management of vulnerable landscapes and watersheds across the TSB will include the conservation and active rehabilitation of degraded ecosystems to restore the provision of critical ecosystem services, supported by innovative finance mechanisms that will facilitate the long-term maintenance and scaling of the approach. This will also involve working with local communities to address the drivers of degradation while maintaining livelihoods and culture.

Against this background, the project will build climate resilience while simultaneously disrupting the key drivers of land degradation to contribute to national efforts to restore watershed ecosystems and their services in the Tonle Sap Basin, with specific focus on Siem Reap province and the Phnom Kulen landscape. Moreover, the project will support sustainable livelihoods, thereby contributing to the country's green growth.

[Note: 1] The proposed project will be implemented using the national implementation modality (NIM), with the Ministry of Environment (MoE) — as the entity responsible for environmental protection and natural resource management in Cambodia — taking the role of Implementing Partner.

Indicative Project Overview

Project Objective

To build the climate resilience of local communities in the Tonle Sap Basin through an integrated watershed management approach that also conserves the natural and cultural heritage that forms the foundation of the local societies

Project Components

Strengthening national and provincial land use planning and implementation capacities.

Component Type	Trust Fund
Technical Assistance	LDCF
GEF Project Financing ($)	Co-financing ($)
658,505.00	1,473,943.00

Outcome:

Outcome 1: Strengthened capacity for coordination, planning and implementation of integrated watershed management at the national and provincial levels.

Output:

1.1: Adaptive decision-making tools for assessing future climate risk and resilience needs for watershed management.

1.2: Policy briefs and training on the integration of future climate risk into national and sub-national watershed management plans.

1.3: Updated Tonle Sap Basin watershed management plan integrating future climate risk and resilience needs.

1.4: Participatory action plans and enforcement strategies for climate change adaptation in the riparian zones of the Steung Siem Reap (SSR) Watershed.

Investment in integrated watershed management, restoration and conservation, at scale.

Component Type	Trust Fund
Investment	LDCF
GEF Project Financing ($)	Co-financing ($)

2,728,092.00	6,106,337.00

Outcome:

Outcome 2: Strengthened resilience of communities in the Siem Reap/Phnom Kulen landscape through scalable Nature-based Solutions and sustainable finance

Output:

2.1: Nature-based solutions implemented in the Siem Reap/Phnom Kulen landscape to reduce flood impacts and improve water provisioning services.

2.2: Sustainable landscape rehabilitation implemented through community-based agroforestry initiatives focussing on diverse, high-value tree species that benefit agricultural livelihoods and enhance carbon stocks.

2.3: Payment for ecosystem services scheme established and operational within the SSR watershed to support long-term financing of community-led NbS initiatives.

2.4: Scaling strategy developed to replicate IWRM practices across other provinces of the TSB.

Resilient natural resource-based livelihoods

Component Type	Trust Fund
Technical Assistance	LDCF
GEF Project Financing ($)	Co-financing ($)
1,754,446.00	3,927,006.00

Outcome:

Outcome 3: Increased adoption of Climate-resilient natural resource-based livelihoods incentivised through training, market development and innovative finance mechanisms

Output:

3.1: Smallholder farmers trained in climate smart agricultural practices that improve productivity under water-stressed conditions.

3.2: Enhanced commodity value chains and improved market linkages for key agricultural products and NTFPs.

3.3: Community-based enterprises established to facilitate long-term, sustainable support to the implementation of NbS.

3.4: Innovative finance mechanism developed to promote public-private-community partnership investments in NbS.

Knowledge, research and innovation

Component Type	Trust Fund
Technical Assistance	LDCF
GEF Project Financing ($)	Co-financing ($)
940,722.00	2,105,633.00

Outcome:

Outcome 4: Innovation in the management of watersheds across Cambodia enabled through high-quality knowledge, reserach and learning

Output:

4.1: Knowledge of climate change impacts on ecosystem service provision in the SSR watershed enhanced through assessments, research and education to improve understanding of natural and cultural assets of the area, and their role in supporting local livelihoods.

4.2: Innovative technologies for climate smart agriculture, agroecology and soil conservation identified to enhance community and ecosystem resilience in the TSB.

4.3: Knowledge management and outreach strategies developed to facilitate the upscaling of climate adaptation interventions nationally, regionally, and globally.

M&E

Component Type	Trust Fund
Technical Assistance	LDCF
GEF Project Financing ($)	Co-financing ($)
284,625.00	637,081.00

Outcome:

Outcome 5: Lessons learned curated through project M&E and disseminated both nationally and internationally to promote the scaling of interventions to other watersheds across Cambodia and the surrounding region.

Output:

5.1: Monitoring and Evaluation programme established to collect and curate lessons learned from project activities.

5.2: Project implementation coordinated and measured through proactive steering committee functions, inclusive monitoring and evaluation, and an operational environmental and social management mechanism.

Component Balances

Project Components	GEF Project Financing ($)	Co-financing ($)
Strengthening national and provincial land use planning and implementation capacities.	658,505.00	1,473,943.00
Investment in integrated watershed management, restoration and conservation, at scale.	2,728,092.00	6,106,337.00
Resilient natural resource-based livelihoods	1,754,446.00	3,927,006.00
Knowledge, research and innovation	940,722.00	2,105,633.00
M&E	284,625.00	637,081.00
Subtotal	**6,366,390.00**	**14,250,000.00**
Project Management Cost	318,313.00	750,000.00
Total Project Cost ($)	**6,684,703.00**	**15,000,000.00**

Please provide justification

A. PROJECT RATIONALE

Briefly 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

Project Context

Figure 1: *Map showing the 7 provinces that form part of the TSB, as well as the Steung Siem Reap watershed (including Phnom Kulen National Park) which will be the focus of on-the ground investments.*

The Tone Sap Basin (TSB) is a large geographical region that covers a significant portion of Cambodia. The total area of the TSB is approximately 85,790 km^2, stretching across seven provinces: Siem Reap, Battambang, Pursat, Kampong Chhnang, Banteay Meanchey, and Kampong Thom, Preah Vihera (Figure 1). The large geographic extent of the TSB, accounting for a large majority of the total land area in Cambodia, makes it critically important to the lives of the Cambodian people, with 24% of the population (~4 million people) living within the catchment area. Two-thirds of this population are rural and rely heavily on the natural resources and cultural heritage of the area to support their livelihoods, including through cultural- and eco-tourism, which contribute significantly to the local and national economy. Moreover, 50% of the population (2 million people) within the TSB are directly reliant on the Tonle Sap itself, which provides water resources for domestic use, agriculture, aquaculture, transportation and regulating the local climate. Within the broader catchment of the Tonle Sap, which includes 11 major tributaries, the Government of Cambodia has identified the Siem Reap/Phnom Kulen landscape, including the Steung Siem Reap (SSR) watershed, as a key area for the national efforts in conservation and restoration owing to its cultural and ecological importance in the country. The SSR watershed covers an area of 361.9 km^2 and extends from the mountain range of Phnom Kulen in the north to the Tonle Sap Lake in the south. It is home to the UNESCO World Heritage Site of Angkor Wat – a site of great cultural significance and the main tourism destination in the country. The cultural heritage value of the SSR watershed extends into the upper catchment areas of Phnom Kulen National Park (PKNP), a sacred site for the Khmer people which holds a legacy of being the origin of the Kingdom of Cambodia.

In addition to its importance for cultural heritage and biodiversity, the upper reaches of the SSR watershed, including the PKNP, are a critical source of water supply for Siem Reap province. The primary watercourse in the watershed is the Siem Reap River, which originates in the Dangrek Mountains along the northern border of the country and flows to the Tonle Sap Lake in the south. With the headwaters of 36 tributaries of the Siem Reap River originating in the PKNP, the park's forest ecosystems and upland areas surrounding tributaries

play a central role in regulating hydrological cycles — essential for maintaining river flows and recharging the aquifer that supplies water for irrigation and domestic use by local communities. The resulting water supplies are also essential to the tourism industry (including hotels and restaurants) which is a heavy user of water in the region, as well as to maintaining the foundations of the Angkor archaeological complex — creating opportunity for partnerships with the economically important sector to conserve ecosystem services.

Climate Change Context

The population of Cambodia is extremely vulnerable to the impacts of climate change, which are being felt across the country. In particular, water resources, including those of the Tonle Sap Basin, are threatened by the ongoing impacts of climate change, with shifts in rainfall patterns, changing seasonality and increasing intensity of rainfall impacting both the flow of surface water, and the recharge of groundwater aquifers. These changes and the resulting impacts are summarized below. The average annual temperature has already significantly increased from 26.7°C in 1979 to 27.7°C in 2019 (Figure 3), while an increasing trend in average annual precipitation has been observed across Cambodia over the last 30 years (1981-2021; Figure 2), with the greatest increases observed in the southwest, followed by the northern regions[1][1]. Average annual rainfall also shows spatial variation across Cambodia, with the highest rainfall observed in the coastal zone (3,000-4,000 mm), followed by the upland areas (2,000-2,200 mm), while the central lowlands received the least rainfall (1,000-1,400 mm). These changes have exposed local communities across the country to a number of climate hazards — most notably, floods and droughts.

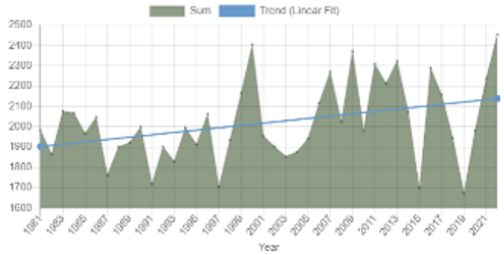


Figure 2: *Average annual precipitation in Cambodia from 1981-2021 (Source: CHIRPS data – Earthmap.org)*

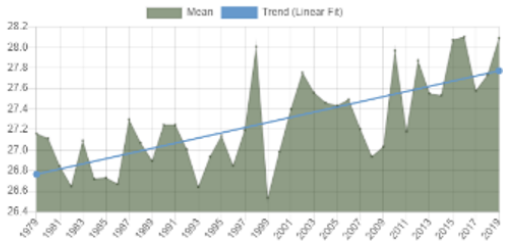


Figure 3*: Average annual temperature in Cambodia from 1979-2019 (Source: ECMWF ERA5 data – Earthmap.org)*

According to the International Emergency Events Database (EM-DAT), Cambodia has recorded 39 significant climate-related disaster events between 1990 and 2022, including 25 floods, 8 storms, and 6 droughts (Figure 4). Such natural disasters have affected over 8 million people in Cambodia and causing about US$ 1.8 billion loss in agriculture and infrastructure sectors from 2005 to 2019[2]. For example, flash floods and river floods in 2021 affected about 28,450 households (~122,000 people[3][2]), and impacted 24,862 ha of agriculture land in Banteay Meanchey, Battambang, Siem Reap, Kampong Speu and Ratanak Kiri provinces. Such extreme events are expected to increase under future climate conditions, as rainfall becomes more intense, runoff increases, and dry periods extend. Changes in rainfall seasonality are also expected to increase the area of open water in the Tonle Sap Basin by 2–21%, while reducing the area of suitable rain-fed habitats by 2–5%, and seasonally flooded habitats by 5–11%[4][3].

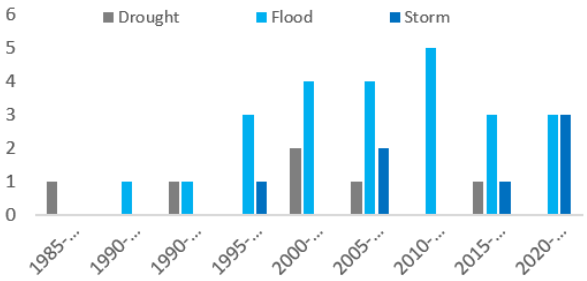


Figure 4: Disaster events in Cambodia, EM-DAT 2022

The extent of climate vulnerability in Cambodia has been assessed through the National Vulnerability Index[5] which reports that 34.8% of Cambodia's 1,629 communes have highly or 'quite' vulnerable, with the most significant hotspots falling within northern regions of the country, particularly surrounding the TSB. This includes much of the northern highland areas of Siem Reap (Figure 5) — the vulnerability of which is largely linked to high exposure to floods, exhibiting some of the highest flood vulnerability scores in the country. Along with the high climate hazard exposure, Cambodia is also ranked low in terms of capacity to cope with climate change. The low combined exposure and readiness scores result in Cambodia being ranked 149th out of 181 countries on the 2021 ND-GAIN Index — signifying that building resilience is critical for sustaining current and future growth of the country.

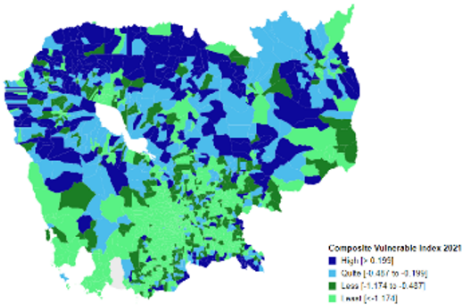


Figure 5: Spatial distributions of climate change vulnerability at the commune level.

Among the most vulnerable groups are small-holder farmers and rural communities who rely on natural resources provided by the Tonle Sap and its floodplain for their livelihoods, especially water and forest resources, as well as agriculture, fishing and other aquatic animals and plants. The low adaptive capacity of population is highlighted by the high poverty rates, with the Ministry of Planning reporting that ~1.3 million people (9% of the total population) within the TSB live below the poverty line. Many of these households are also considered land-poor, owning less than a hectare agricultural land. Women are particularly vulnerable form this perspective, with only 10% of the agricultural area owned by women. The vulnerability of small-holder farmers and the households they support to the increasing frequency and intensity of climate hazards poses a significant threat to the country's sustainable development, affecting not only one of the country's main economic sectors, but also its food security and social cohesion. The restrictions on the movement of people and goods due to the COVID-19 pandemic which disrupted agricultural supply chains and demand, have further demonstrated the critical linkages between the market and underlying socioeconomic vulnerabilities of Cambodian farmers, particularly the poor, women and other socially excluded minorities[6].

Future Climate Projections

Increasing temperature trends are expected to continue into the future, with projections under the moderate RCP4.5 scenario predicting a +2.0°C change in mean annual temperature mid-century (2041-2070). Under the worst-case scenario (RCP8.5), the rate of increase in average annual temperature will accelerate through the mid- to late-century, with a +4°C change by the 2071-2100 period (Figure 6).[7] It should be noted that the average annual temperature in the north and northeast regions has higher change compared to other regions of Cambodia —aligning with the areas of highest vulnerability.

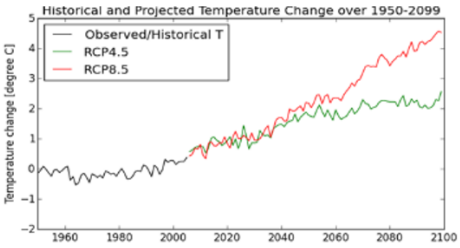


Figure 6: Historical and projected average annual temperature.

This trend is expected to continue into the future, with RCP4.5 projections showing a +11% change in average annual rainfall in the Siem Reap province for the 2041-2070 period. This increases to +17% under RCP8.5. [8] Although these projections show an overall increase in total rainfall, the temporal distribution of these changes is not uniform, with more rainfall expected during the wet season, contrasted by a decrease in the dry season. Consequently, there is expected to be a notable shift in the timing and intensity of rainfall patterns and seasons, changing the hydrology of the major rivers and their tributaries, and affecting ground water aquifers. Intense rainfall during the wet season will increase mean annual runoff by 25% under RCP4.5 (2041-2070) [9], resulting in increased flood risk, while the decreased dry season rainfall will result in prolonged dry spells. Studies on the hydrology of the TSB have also shown that river flow in 11 sub-basins are expected to decrease by 9 to 29%, 10 to 35% and 7 to 41% for the 2030s, 2060s and 2090s projections, respectively[10]. The greatest flow reduction is during the dry season, with the Siem Reap River showing the most significant flow reductions of all rivers assessed, ranging from 33% to 78%. Table 1 below highlights some of the key impacts of future climate change on the vulnerable agriculture sector in Cambodia, noting considerable impacts on crop productivity as well as damages from extreme events. The vulnerability of key crops is further demonstrated by a study conducted for the Kampong Thom Province within the TSB[11][4], which highlights that lowland and irrigated rice, soybean and cassava, are all highly vulnerable to increasing temperatures (particularly maximum temperatures which impact optimal growth conditions), and flooding, while soybean is also highly vulnerable to decreases in water availability during the growing season.

***Table 1:** Projected climate change impacts on crop production as identified in MAFF's Climate Change Strategic Action Plan*

Climate Change Threats	Impact Summary
Increased Temperature	Reducing the crop yields. The yield of rice decreases by 10% for every 1°C increase in the minimum temperature during the growing season.
Pest and Diseases Outbreak	The higher growth rate of pathogens due to the long growth cycle and warmer season and the increase in the growth of weeds due to the increased atmospheric CO_2 concentration.
Increased extreme weather events	Frequent droughts and floods devastate crop plantations. The increasing frequency and intensity of floods and droughts will make the onset of growing seasons less predictable, thereby affecting productivity, especially rice which is sensitive to the timing of the first rains. Mini droughts in the wet season and unexpected rain in the dry season further affect productivity and the livelihoods of farmers.
Changes in Rainfall Patterns	Wet seasons would be shorter but with higher levels of rainfall, while the dry season will be longer and drier. This will result in shifts in the distribution of rainfall between areas. The changes to the length of seasons, combined with the delayed onset of the wet season after a long dry season, will affect traditional cropping practices

Root causes and drivers of vulnerability

Cambodia is one of the fastest-growing economies in the region, with an average GDP growth rate of 7.6 percent between 1995 and 2019, enabling the country to progress to a lower middle-income economy in 2015. This growth has been driven predominantly by agriculture, industry, and tourism. The government is prioritizing a continuance of this strong growth, with the goal of graduating the country to upper-middle income status by 2030 and a high-income country by 2050. Progress towards these ambitions was constrained by the COVID-19 pandemic, which led to fall in GDP growth rates to 3.1% in 2020 and 3% in 2021. While the economy has since rebounded somewhat – growing by 5.5% in 2022 supported by the government's

COVID recovery policy – several challenges still impact the ability of Cambodia to achieve these ambitions. For example, the vulnerability of the Cambodian economy and people is linked to the health of ecosystems, particularly in the Tonle Sap Basin. Approximately 80% of the total population live in the rural areas and are largely dependent on the natural resources for their livelihoods — including forests, fisheries, river flow, and rainfall, all of which are susceptible to the negative impacts of climate change and environmental degradation.

The ecosystem of the TSB provides important natural resources and ecosystem services to communities living withing and near forest areas, many of whom depend on timber and non-timber forest products (NTFPs) for their livelihood. Unfortunately, these critical ecosystems are threatened by environmental degradation. Global Forest Watch (2022) listed Cambodia as having one of the world's highest deforestation rates, with a 30 percent loss of forest cover over two decades, with the TSB experiencing substantial forest losses and fragmentations (Figure 8). The forest cover change analysis confirms that a significant area of 1,707,644ha was lost over the period of 2006-2022 within the TSB[12]. This degradation is constraining Cambodia's carbon mitigation efforts, with the forest and land use sector being the largest contributor to the GHG emissions (80.1% in 2016[13]), driving the change in carbon stocks, primarily due to deforestation. The vulnerable northern upland areas of Siem Reap, which includes the PKNP, is being rapidly degraded. Forest cover loss in this region is occurring at a concerning rate of 1.22% per year across the last three decades, mainly due to rapid expansion of cash crop farming and illegal logging (this is higher than the national average deforestation rate of between 0.8%-1%).

For Figure 7 & Figure 8, please refer to the PIF in word document uploaded to Roadmap section as the figure cannot be saved.

The degradation of forest ecosystems in the TSB and its sub-catchments has notable impacts on the water resources of the region. Much of this degradation stems from illegal logging and the expansion of agriculture into forest areas. This includes the maladaptive expansion of small-plot agriculture to offset the loss of productivity resulting from climate-related stressors and the depletion of soil nutrient from non-regenerative farming practices. The degradation of forests in Cambodia has also been directly linked to climate change impacts, particularly through loss of soil fertility linked to erosion as well as through reduced soil moisture and prolonged drought[14]. As noted above, the agroecological landscape – made up of a mosaic of agriculture and forest ecosystems – play a critical role in regulating hydrological cycles, both in terms of controlling surface runoff and recharging of groundwater aquifers. As ecosystems become degraded, the rate of surface runoff increases, with a subsequent decrease in infiltration and aquifer recharge. Further impacts include increased soil erosion and nutrient loss as well as decreased water retention in soils — with knock-on effects on ecological and agricultural productivity, perpetuating negative cycles of degradation. Given that approximately 38% of the Tonle Sap's water originates from surrounding watersheds, the loss of regulating ecosystem services resulting from environmental degradation will have a significant impact on the 2 million people that rely directly on the Tonle Sap for their livelihoods. This strong dependence on natural resources results in many of the most vulnerable communes in Cambodia being located in the provinces that encompass the TSB[15].

Future economic growth is expected to be further influenced by climate change trajectories, with government projecting that climate change will reduce GDP growth by 2.5% in 2030 and 9.8% by 2050 under a scenario where global temperature increase is maintained below 2°C by 2100[16]. The vulnerability of the economy to climate change is largely linked to the high dependence on natural resources, as noted above. For example, many of the lowest income, most vulnerable populations depend on the agriculture sector, which is highly vulnerable to climate events such as flood, drought and storms. These communities also have low adaptive capacity, with limited access to modern irrigation infrastructure that can support a shift away from vulnerable rain-fed agriculture practices, as well as having limited knowledge of conservation agriculture practices and alternative cropping strategies that can improve productivity of rainfed agriculture under future clime conditions. Consequently, shifting rainfall patterns have a direct impact on agricultural livelihoods. Given this baseline scenario, much of the loss in GDP growth is expected to come from: i) the loss of income, mostly from declining natural resource productivity; ii) a reduction in labour productivity arising from heat stress; and iii) damage to assets from climate hazards such as floods. Given the projected changes in rainfall and the high dependency of the population on natural resources, the water sector is considered one of the four most vulnerable sectors to climate change in Cambodia[17].

When combined, challenges of climate change and environmental degradation have crosscutting impacts that compound the vulnerability of the population. These crosscutting impacts are particularly felt in two key sectors of the local economy in the TSB: agriculture and tourism. The TSB is one of the key agroecological zones of Cambodia, with around 12% of Cambodia's annual rice production occurring in the provinces of the TSB. Other crops such as corn, cassava, and soybeans as well as other fruit and nut plantations (banana, mangos, and cashew) are also farmed in these provinces. The lake also provides valuable fishing grounds, supporting an average yearly fish harvest of approximately 300,000 tons. However, the negative impact of climate change and environmental degradation on water regimes and soil productivity in the TSB is significantly affecting agricultural and aquacultural productivity and food security of the country. For example, it has been noted that every 1ºC increase in average temperature would cause the annual mean crop production to decrease by 10%, indicating that climate change may render cropping agriculture an unprofitable activity for an average farm. Moreover, the shorter wet season, characterized by more intense rainfall events, has direct impacts on water availability for agriculture, with prolonged dry seasons and flooding during the wet season affecting traditional cropping practices[18]. As noted above, declining agricultural productivity perpetuates the maladaptive practice of expanding agriculture into forest areas to compensate for lost production, as well as increasing the uptake of maladaptive livelihood alternatives such as illegal logging and other land-use changes that further degrade forest ecosystems. This in turn reduces the provision of regulating ecosystem services, which further impacts agricultural productivity and perpetuates the negative cycle of degradation. The drivers of vulnerability for Cambodian small-holder farmers and communities acting across the agricultural value chain are compounded by the numerous challenges that limit adaptive capacity – such as a lack of access to finance, technology, and knowledge – that prevent them from shifting away from vulnerable agricultural practices.

In terms of tourism, there is an intrinsic link between the tourism industry and the water sector — with a reliable water supply being critical to a sustainable tourism industry. However, not only does the tourism sector have an impact on water resources, it is also vulnerable to changes in the hydrological cycle. Direct impacts of the tourism industry include the high-water demand, especially during peak tourism seasons — which can contribute to the depletion of ground and surface water reserves. Tourism activities also produce waste which contaminates water resources, impacting water quality. Moreover, the development of tourism infrastructure such as hotels, resorts and restaurants contribute to the degradation of ecosystems when not approached in a sustainable way. Not only does this result in the loss of the natural heritage that contributes to the attractiveness of the area to tourists, but the impact on the hydrological cycles poses a significant risk to critical water resources – both in terms of water scarcity (particularly during the dry season) and flood risk during the wet season. This problem is exacerbated by climate change, which results in prolonged dry periods, punctuated by short, intense wet seasons with high flood risk. The impacts of climate change and environmental degradation on the tourism sector will have a notable impact on the Cambodian economy. In 2019, tourism contributed ~12% of the total GDP, generating more than $4.9 billion in revenue and providing 630,000 direct jobs in Cambodia. Due to the concentration of cultural and natural heritage sites, the economic contribution of tourism in Cambodia is disproportionately concentrated in the Siem Reap province, which alone accounted for almost a quarter of the national tourism revenue (~$1.2 billion), as well as accounting for almost 40% of tourism-sector jobs (248,000) in 2019. Much of this tourism is linked to the natural and cultural heritage of the area, including ecotourism and activities related to the Angkor Wat and the Angkor Archaeological Park – which are threatened by the impacts described above. For example, various studies[19] have indicated that the changes in hydrological cycles resulting from climate change and land use change across the SSR watershed may have significant effects on the Angkor Wat complex. While the tourism sector took a steep dive in 2020 as a result of the COVID-19 pandemic, with the impact lasting for at least two years, the sector has since early- to mid-2022 started to show significant recovery[20] and is expected to continue to grow and contribute to the local economy.

Baseline in the absence of the project

Without urgent intervention and long-term investment, the degradation of agroecological systems in the TSB, and particularly in the Siem Reap/Phnom Kulen landscape where the rate of deforestation is highest, will continue. This will result in loss of regulating ecosystem services, with impacts on water availability and soil health. This will, in turn, impact the local economy, particularly through the decline in agriculture and other

natural resource-based livelihoods as well as the decline in tourism should the regions cultural heritage be lost, or water supply become restrictive.

National Priorities and Baseline Investments

The project is nationally driven and has been designed to directly address several key national priorities as identified in various policies and plans related to environmental degradation, climate change and sustainable development. This includes alignment with several key national-level policies and plans, most notably the Cambodia Climate Change Strategic Plan (2014-2023)[21], the Nationally Determined Contributions (NDCs 2020)[23], National Action Plan for Combating Land Degradation (2018-2027), and National Biodiversity Strategies and Action Plan (NBSAP)[22]. This includes national targets to: i) increase forest cover to 47% of the total land area and reduce deforestation rates by 50% by 2030; ii) reduce 50% of historical emissions by 2030; iii) to increase soil organic carbon stock in forest and cropland by 1.2% per year; iv) identify, inventory, monitor and enhance awareness about habitats or ecosystems and related ecosystem services; v) strengthen measures that have a positive impact on biodiversity; and vi) strengthening the enabling environment. The project also contributes to the adaptation priorities of the updated NDC (2020), including building capacity for climate change innovation in the tourism industry along the Tonle Sap River, establishing a centralized and standardized approach to climate-resilient water management, strengthening flood resiliency capacity of communities around lake Tonle Sap, building resilience of biodiversity conservation and restoration to adapt to climate change, and developing an industry for crops post harvesting techniques and agro-business enhancement. Other key national policies considered include the: i) National REDD+ Strategy/2017-2026[23]; ii) Long-Term Strategy for Carbon Neutrality(LTS); iii) Environment and Natural Resources Code on Conservation, Management, and Restoration of Natural and Cultural Resources; iv) National Forest Program 2010-2029; v) National Strategic Plan on Green Growth/2013-2030; vi) National Environment Strategy and Action Plan/2016-2023; vii) Law on Land Management, Urban Planning and Construction (Chapter 3/Land-use Master Plan); and vii) National Protected Area Strategic Management Plan.

In particular, the project aligns with the Tourism Development Master Plan in Siem Reap 2021-2035[24], as well as contributing directly to the three development strategies of the Master Plan for Phnom Kulen National Park, namely: i). Economic and social benefits to the local people by maintaining their traditional way of life, beliefs and lifestyles; ii). Forests and environment to be preserved; and iii) Sanctity: The National Park's historical and archaeological features. The Master Plan sets out actions to transform Phnom Kulen Orchid Research and Conservation Centre (Orchid Research Centre; located in the PKNP) to become a research and science tourism destination. The project will form a partnership with the Orchid Research Centre to support its role in providing knowledge and scientific information, harmonizing human-nature relations, improving local livelihoods, and raising funds for natural resource protection. In addition to the alignment with national priorities, the project has considered the broader landscape of ongoing initiatives in the target area, ensuring strong alignment and complementarity of initiatives towards the overarching goal of climate resilience and the conservation of natural and cultural heritage. For example, with the support from external partners, the government has begun introducing conservation agriculture across Cambodia through initiatives such as the Conservation Agriculture and Sustainable Intensification Consortium (CASIC) led by MAFF and piloted in two provinces of TSB. CASIC has tested agroecosystems to improve soil fertility, reduce labour, conserved water and increased yield and income as well as resilience of smallholder farmers. The project will seek to collaborate with CASIC to scale up the practice particularly focusing extending MAFF's service to scale up climate smart agriculture and engaging private sector and service providers for conservative agriculture. Further on-going and planned projects on climate change adaption and biodiversity in the TSB, along with their alignment with the proposed project, are listed below.

***Table 2**: Baseline projects in the TSB*

Project Details	Description and alignment
Second Urban Environmental Management in the TSB Project Agency: ADB Period: 2018-2024 Finance: $ 96.4 M from Asian Development Fund	The project seeks to improve urban environmental infrastructure that are vulnerable to environmental risks including climate change in three cities (Battambang, Banteay Meanchey and Kampong Thom provinces) around the TSB. It is preparing a provincial spatial plan for Banteay Meanchey province and Land Use Master Plans for the provincial cities of Banteay Meanchey and Kampong Thom. These plans focus predominantly on urban water supply, wastewater and solid waste management infrastructure; however, while they do consider climate resilience in the design of infrastructure, they do not fully integrate upstream watershed management into the planning process. The proposed LDCF project will build on the land-use planning processes to integrate climate resilience, as well as providing decision-making tools to link upstream integrated watershed management with urban water management planning.
Cambodia Sustainable Landscape and Ecotourism Project Agency: World Bank Period: 2019 to 2025 Finance: $ 50.6 M, with a $4.8M grant component from GEFTF	The project objective is to improve protected areas management, and to promote ecotourism opportunities and non-timber forest product value chains in the Cardamom Mountains-Tonle Sap landscape. Amongst others, the project helps to improve strategic investments in information and decision support systems for Protected Areas (PA) landscape planning and management. It also works with communities within the targeted PAs (including Phnom Kulen National Park) to strengthen their livelihood through ecotourism and enhancing agriculture value chains. The proposed LDCF project will provide decision-making tools to further strengthen the integration of climate resilience into PA landscape planning and management – including providing innovative mechanisms to leverage finance from tourism industry to support the protection and restoration natural areas. The LDCF project will also strengthen linkages between NTFP value chains and smallholder farmers to incentivise the uptake of sustainable agriculture practices.
Tonle Sap Biosphere Reserve project Agency: UNESCO Period: 2019-2024 Finance: $ 982 310 from EU	The project is funded by EU through FAO Complementary Support to the Cambodia Program for Sustainable and Inclusive Growth in the Fisheries Sector: Capture Component (CAPFISH-Capture). The project aims to provide a robust coordination architecture for the Tonle Sap Biosphere Reserve, to preserve the lake's resources and sustainably improve livelihoods of local communities — including establishing a High-level Coordination Committee for the Tonle Sap Biosphere Reserve. The proposed LDCF project will collaborate with UNESCO to link the coordination committees with the broader watershed management committees.
Feed the Future Cambodia Harvest III Agency: USAID Period: 2022-2027 Finance: $25 M form USAID	The project aims to promote sustainable, broad-based economic growth by increasing diversification and competitiveness in Cambodia's agriculture sector. The proposed LDCF will collaborate with Harvest III to ensure full integration of locally-relevant climate information into agricultural research – including specific focus on the promotion of conservation agricultural technologies amongst farmers that do not have the capacity to adopt irrigation and mechanisation.
INRM in the Productive, Natural and Forested Landscape of Northern Region of Cambodia Agency: UNDP Period: 2020-2025 Finance: $ 13.8M from GEFTF	The project's objective is to promote integrated landscape management for the conservation and sustainable use of biodiversity, natural resources and ecosystem services in the northern region of Cambodia. The project's target location includes the three watersheds within the TSB, and adopts a landscape approach to manage biodiversity and the use of natural ecosystems. This includes establishing a national framework for integrated landscape approach to conservation of biodiversity and sustainable use of natural resources. However, the management approach is focused on biodiversity conservation, and does not fully integrate future climate scenarios or resilience into the planning framework. The proposed LDCF project will therefore build on these processes to integrate climate resilience, as well as linking PA management to broader watershed management across the TSB.
Biodiversity Financing (BIOFIN) Phase 2 Agency: UNDP Period: 2021-2023 Finance: $ 500 000 from NORD & Gov of Germany	This UNDP global initiative is currently being implemented in 40 countries including Cambodia. Since 2018, BIOFIN has collaborated with NCSD and MoE as well as MEF to assess the financing required for biodiversity conservation in Cambodia. Under Phase 1, top five biodiversity finance solutions were identified, and selected solutions are being implemented under Phase 2. The proposed LDCF project will examine opportunities to engage with BIOFIN programme to establish innovative mechanisms that blend biodiversity finance with climate finance to support the scaling of nature-based solutions in Cambodia.
Our Tonle Sap Project Agency: WCS Period: 2021-2024 Finance: $5.4 M from EU	The project helps to empower the communities to protect and conserve natural habitats, restore ecosystems and create resilience around the Tonle Sap Biodiversity Reserve against rapid environmental changes. The proposed LDCF project will take into account lessons learned from WCS's work on ecosystem restoration for the design of the project's strategies.

Agriculture Service Programme for an Inclusive Rural Economy & Agriculture Trade (ASPIRE AT) Agency: IFAD Period: 2022-2030 Finance: IFAD $47.9M & $60M from European Investment Bank	The programme aims to increase the income of 125,000 rural households through productive and resilient assets, partnerships and market access, and access to value chains within agriculture sector. It is being implemented across Cambodia including Siem Reap province. While the ASPIRE AT initiative includes an element of climate change, it is not the sole focus – with interventions targeting producers organisations for investments in larger infrastructure developments, as well as providing credit lines for market development. The proposed LDCF project will complement and add to this initiative by building the adaptive capacity of the most vulnerable smallholder farmers, introducing on-farm practices that will increase resilience to drought and flood, as well as connecting climate-resilient production to markets and catalysing private sector investment to support small farmer holders in these provinces. Opportunities will also be sought to partner with IFAD to link beneficiary farmers to financial opportunities provided by the ASPIRE AT initiative.

In addition to the baseline investments listed above, the design of the proposed project accounts for a recently approved GCF project under FAO in partnership with MoE and MAFF, namely "Public-Social-Private Partnerships for Ecologically-Sound Agriculture and Resilient Livelihood in Northern Tonle Sap Basin (PEARL)". This USD36.23 M project aims to enhance the climate change resilience of smallholder farmers and local communities in the northern TSB by improving climate-resilient practices in agriculture through public-social-private partnerships. The project will strengthen the adaptive capacity of 450,000 farmers in four provinces Kampong Thom, Oddar Meanchey, Preah Vihear and Siem Reap through market incentives that promote climate-resilient production and processing. Given the alignment between the interventions under PEARL and those proposed in this LDCF project, close engagement will be needed throughout the next phase of development and during implementation to ensure that the efforts complement, but do not duplicate efforts towards climate resilience – particularly under Component 3. For example, in the Siem Reap province the PEARL initiative is targeting leafy vegetable production, creating opportunity and need for the proposed LDCF project to target a broader range of conservation agriculture practices that improve soil health, reduce erosion and runoff, and conserve water, as well as improving market linkages for NTFPs to incentivise agroforestry and sustainable land management practices. Moreover, given that the catchment management actions under PEARL will only target 7,600ha of community protected areas and community forests, there is significant space and opportunity for LDCF to contribute to scalable restoration initiatives, particularly through the establishment of a payment for ecosystem services model.

[2] Cambodia's Third National Communication to the UNFCCC (TNC).

[3] CamDI, NCDM, 2020

[4] Assuming an average of 4.3 people per household.

[5] Third National Communication, 2022

[6] National Vulnerability Index

[7] MAFF, CARD and FAO, 2020

[8] ClimateInformation.org

[9] ClimateInformation.org

[10] ClimateInformation.org

[11] Oeurng C, Cochrane TA, Chung S, Kondolf MG, Piman T, Arias ME. Assessing Climate Change Impacts on River Flows in the Tonle Sap Lake Basin, Cambodia. Water. 2019; 11(3):618.

[12] ICEM (2013)

[13] UNDP, 2023

[14] Biennial Update Report of Cambodia, 2020

[15] It is projected that forest areas, particularly in the northeast and southwest, will be exposed to longer dry periods.
[16] MoE and NCSD, 2021https://ncsd.moe.gov.kh/standard_report_visualize_final_report/d3_c_report/vulnerability?portal_id=16751&standard_report=10706

[17] MEF and NCSD, 2018

[18] Third National Communication, 2022

[19] Third National Communication 2022.

[20] Chim, K. et al. 2019 and Jacobson, C. et al. 2022.

[21] Trading Economics, 2022.

[22] The CCCSP implementation period will end before the project is implemented. During the next phase of development, the project development team will engage with the National Climate Change Committee and the MoE to identify the next iteration of the strategy to ensure ongoing alignment.

[23] As Cambodia does not at this time have a formal NAP, and the NDC's are considered the primary source for adaptation actions/priorities for the country. A NAP financing strategy was developed, and the proposed project aligns with the financial strategies identified therein, particularly in terms of accessing multi-lateral climate funds and leveraging investment from the private sector.

[24] Backed by Long-Term Strategy for Carbon Neutrality.

[25] https://redd.unfccc.int/files/20180813_national_redd__strategy_cambodia.pdfhttps://redd.unfccc.int/files/20180813_national_redd__strategy_cambodia.pdf

https://redd.unfccc.int/files/20180813_national_redd__strategy_cambodia.pdf[26] The project target area, PKNP, is one of the six priority tourism zones proposed under the Tourism Development Master Plan.

B. PROJECT DESCRIPTION

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 PIF guidance document. (Approximately 3-5 pages) see guidance here

Note: ANNEX G: DETAILED DESCRIPTIONS OF PROJECT OUTPUTS is available in the project document (PIF) uploaded as word document in the roadmap section. Please refer to the document for additional information.

Theory of Change

Problem statement

The Tonle Sap Basin TSB), an expansive area of economic importance and the cultural heart of Cambodia, is being severely impacted by climate change, with increasing temperatures and shifting rainfall patterns having a major impact on water resources and agricultural productivity, as well as increasing the frequency and intensity of extreme events such as drought and flood. The impacts of climate change are exacerbated by the degradation of forest ecosystems and upland watershed areas, which is happening at a concerning rate – threatening the rich cultural and natural heritage of the country. As the forests are degraded, the critical ecosystem services they provide are being lost, with severe consequences for the sustainability of water resources and the livelihoods they support, as well as the tourism industry, which is a major contributor to the local and national economy. The resultant impacts on natural resource-based livelihoods are driving local

communities to adopt maladaptive practices such as agricultural expansion into forest areas, fuelling a negative cycle of degradation in the catchments.

Preferred solution

A systematic and integrated approach to watershed management is required to address the drivers of climate vulnerability and environmental degradation in the Tonle Sap Basin (TSB) of Cambodia and safeguard the natural and cultural heritage of the region. The landscape and watershed management solutions should take a systems-based approach, accounting for three key pillars identified for sustainable investment in Cambodia, namely governance, finance, and people (Figure 11). When underpinned by a foundation of knowledge and learning, an approach built on these pillars will ensure that the appropriate enabling environment is created for lasting and scalable impact. This approach will ensure that water resources and flood risks are managed in an integrated manner, considering the spatial interlinkages and dependencies between land use, ecosystem health and underlying causes of vulnerability to climate change. The protection and restoration of important ecosystems will be undertaken to improve the provision of ecosystem goods and services and reduce the risk of droughts, floods and their impacts on local communities, thereby increasing their resilience to the impacts of climate change. Improved management of landscapes across the TSB should include the conservation and active rehabilitation of degraded ecosystems to restore the provision of critical ecosystem services. This requires working with local communities and the private to address the drivers of degradation and incentivise sustainable practices while maintaining the livelihoods and culture of vulnerable communities.

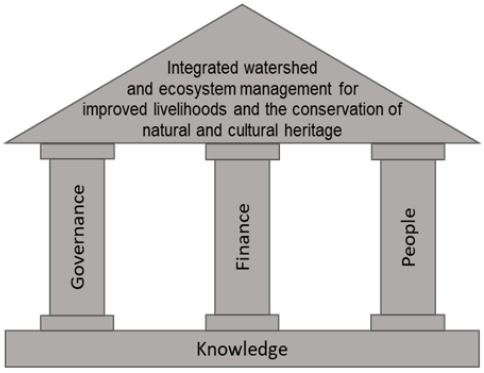


Figure 11: *The three pillars of systematic, integrated watershed management on which the project has been designed to ensure sustainable and scalable impact.*

Barriers

Barrier 1: Policy and institutional capacity gaps for integrated planning, coordination and implementation at the national, provincial and watershed level. The responsibility for watershed management across the TSB is currently distributed across multiple stakeholders, with various government departments mandated to manage different sectors[1]. Given this distribution of responsibility, watershed management efforts are currently siloed, with limited coordination between relevant stakeholders. The Tonle Sap Authority was established in 2009 to support more effective management of the TSB; however, the Authority's primary mandate is limited to research, education and information dissemination. Still, the Authority can support coordination efforts, identifying gaps and brining the knowledge forward through the high-level representation within the Authority who are involved in planning and management. At the local level, subnational watershed management committees have been established to help coordination efforts within their respective jurisdictions, chaired by the provincial Governor, with membership from relevant provincial line departments.

However, there remains a lack of integrated planning that considers climate change against forest, water, biodiversity and cultural assets within Protected Areas (PAs) and watersheds in a systemic manner – particularly where watersheds span across administration boundaries.

Across the TSB, watershed management committees have limited capacity to make informed and evidence-based decisions that balance development activities, environmental protection and cultural values. For example, there is limited information available on the interactions between forestry, water and cultural assets to make informed management decisions. This is compounded by limited availability of geospatial information and tools, including land and forest cover maps, tourism data, and climate trends as well as a general lack of capacity among decision makers to apply evidence from those tools that are available in support of local and national planning. The current watershed management committees also only include participants from the key ministries and lacks participants from the other interest groups such as the private sector, research institutions, women and youth groups, and commodity value chain stakeholders. The absence of a suitable platform for multi-stakeholder participation in the watershed level reduces engagement, resulting in a lack of ownership at the local level. As a result, key management strategies, such as the SSR watershed management plan and PKNP management programme are not in synergy and not achieving the desired sustainability.

At a policy level, there are currently no appropriate agriculture and land use management policies that integrate climate resilience, land use, water conservation, soil preservation and erosion control, and pollution reduction. Instead, current interventions for ecosystem management in the TSB are mostly project based and focus on specific geographical locations and individual sectors. This leads to the siloing of ecosystem and watershed management efforts, limiting a holistic landscape approach. Furthermore, climate vulnerabilities are not being assessed in land use planning. A lack of integrated watershed planning also hinders monitoring of the land use and forestry sector, enabling continued degradation and further exacerbating climate change impacts in this area.

Barrier 2: Limited capacities to operationalise/implement sustainable financing mechanisms and mobilize investments at scale for integrated watershed management. There is a significant gap in financing for adaptation in Cambodia. According to the Cambodia NAP Financing Framework, only about 8% of the prioritized adaptation actions were funded between 2015-2018. The Cambodia Updated NDC estimates that at least US$ 2 billion is needed to meet adaptation needs in the country, with majority expected to be mobilized from external sources. However, the NDC does not identify how the funds will be mobilized. While an initial proposal to pilot sustainable financing options such as Payments for Ecosystem Services (PES), performance-based climate-resilient grants (PBCRG) and REDD+ was developed for the SSR watershed, further work is needed to operationalise such options to fill the financial gap for supporting the implementation of watershed management plans across the TSB, as well as local-level actions, such as those identified in the PKNP management programme. One of the key barriers constraining investment in protection and restoration of the agroecological landscape at scale is the limited capacity of watershed management committees to operationalise sustainable financing solutions and develop collaborations with key partners such as the private sector and International Finance Institutions (IFIs). For example, the operationalisation of the pilot PES initiative developed by MoE with support from UNDP has been constrained by the limited technical capacity of provincial administrations to mobilize financial contributions from the tourism sector for the watershed restoration and protection, or to channel funds to upstream communities to promote a shift to sustainable livelihood practices that preserve the agroecological landscape. This is compounded by gaps in the local knowledge base demonstrating the benefits that investments in nature-based solutions (including agroforestry

and conservation agriculture) can generate for cultural heritage protection and the broader economy of Siem Reap (in particular, the tourism industry), hence limiting interest from potential investors in ecosystem restoration. Similarly, operationalisation of PBCRGs at scale has been constrained by the limited mobilisation of co-finance for the sustainable operation of the modality. The terminal evaluation of the SLT project that piloted the PBCRGs noted the need to better align the implementation of the funding cycles with the regular budgeting and planning cycle of the sub-national authorities. Private sector financing has also been identified as a key potential source of finance for adaptation and conservation efforts; however, the sector has yet to be adequately engaged. Various businesses are operated and profited based on natural resources and ecosystem services in the TSB, including tourism and mineral water extraction, but there is no mechanism to manage the revenue to improve the resilience of the people and ecosystem of this region.

Barrier 3: Limited formalised knowledge on natural and cultural assets and the value of conservation, as well as nature-based solutions (NbS) to conserving natural heritage, leading to unsustainable tourism and commodity value chains in the TSB. Currently, there is limited information about biodiversity resources and values of ecosystem services generated within the TBS to inform conservation, tourism and overall area development. Decisions around how and where to invest in natural capital often involve trade-offs between the costs and benefits of various alternatives, making reliable, locally-specific information on the value of ecosystem services and the linkages to livelihoods and business essential to mobilising and maintaining investments in conservation and restoration. Given the important role of healthy ecosystems and biodiversity in sustainably building resilience to climate change impacts, such knowledge gaps impede the implementation of climate change adaptation in Cambodia. This barrier further presents in the limited availability of decision-making tools and data management systems tied to sub-national development planning and associated budget allocation processes. While some tools have been developed to support sub-national administrations in their planning processes as part of Cambodia's decentralisation processes, these tools are often largely perception based and lack a firm science-basis. These limitations on knowledge management lead to inefficient planning and coordination processes, which often result in repetitive piloting of interventions. Moreover, in the absence of adequate monitoring, analysis and reporting on proven approaches, lessons and best practices, resources are not mobilised to scale up pilot initiatives. Although some progress has been made in developing M&E and reporting platforms in Cambodia, such as the NDC-tracking system, support is still required to strengthen these platforms and package information on lessons learned and best practice in a format that is accessible to local planners and decision makers.

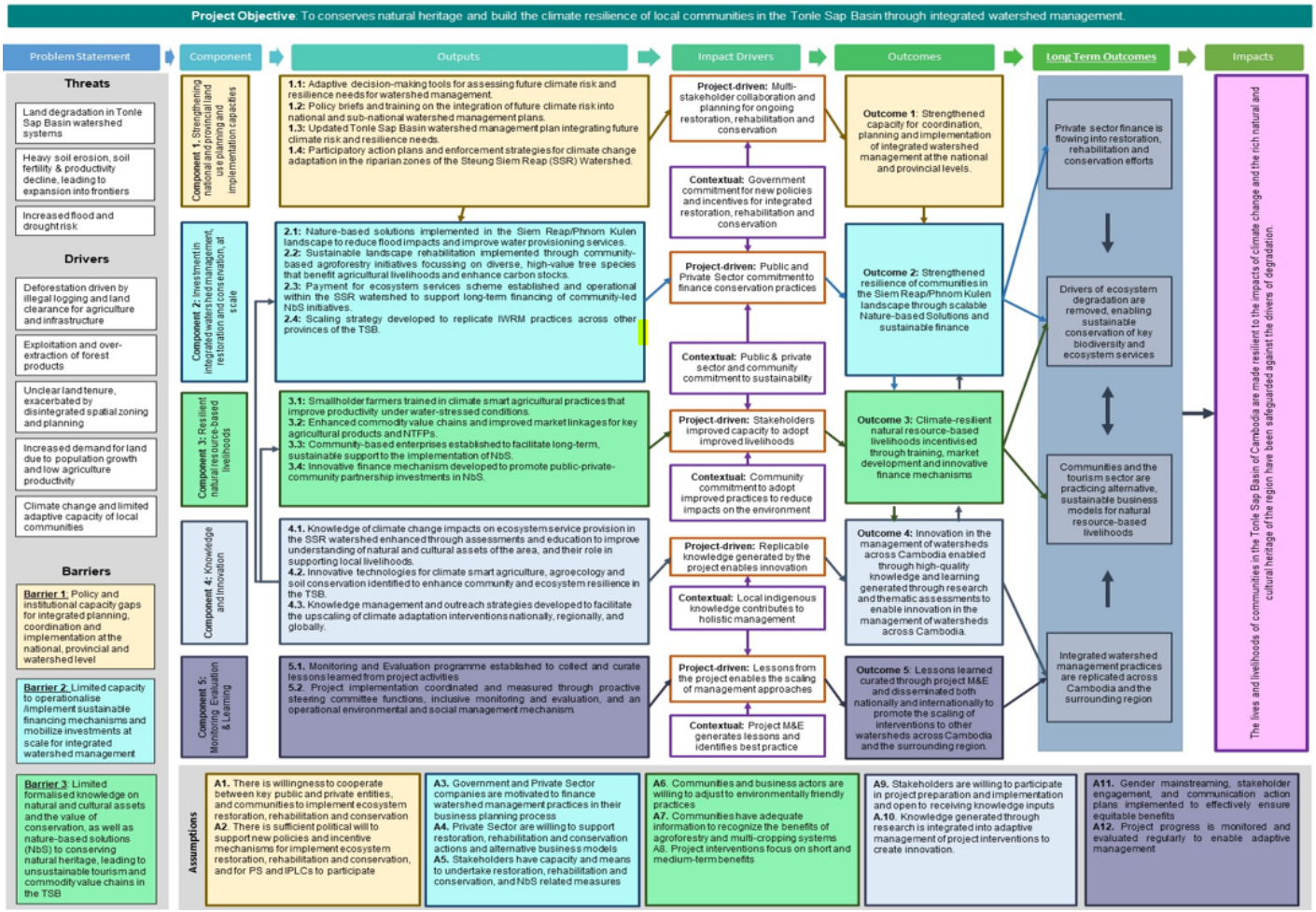
The government established the Phnom Kulen Orchid Research and Conservation Centre (Orchid Research Centre) in 2018 and one of the main activities of the centre is to carry out research on biodiversity resources. In 2020, the centre was expanded to cover the total area of 2,020ha within the PKNP and its function was upgraded to promote the linkages between natural and cultural assets for local development. Despite this upgrading, the centre still lacks technical capacity and financing resource to carry out its functions. This limited knowledge further extends to the understanding of suitable NbS for restoration and conservation, particularly within decision-making bodies, such as WMCs and sectoral line ministries/departments. The current benefits from tourism in the TSB have also not substantively contributed to the protection of natural and cultural assets. Unplanned tourism, especially the influx of visitors during festival occasions at popular sites such as the PKNP and Angkor has caused damage to the archaeological sites, littering the main tourist areas and polluting water bodies. Some villagers who engage in selling products and providing services to tourists can earn some income but currently these benefits are not realised in a sustainable manner. In addition, traditional villages located far from the tourist sites are often excluded from the potential benefits of tourism activities.

In addition, there is limited knowledge of good agroecological practices that can prevent deforestation as well as degradation of soil fertility, carbon stocks and land productivity. Farmers do not have the necessary information about change in ecological and climate trends to adapt their cultivation practices, nor are they aware of the options for and benefits of NbS to promote water conservation and groundwater recharge, as well as to enhance soil fertility on agricultural land. There is also a lack entrepreneurial skill to enhance value chain and market access for key commodities such as cashews and other NTFPs (i.e., resin, honey, and medicines) to provide substantial income to the population of PKNP and hence disincentivize unsustainable practices. The limitations on income opportunity and resultant poverty have led to maladaptive practices of forest encroachment. While the Orchid Research Centre has potential to serve as a Centre of Excellence for conservation, rehabilitation and restoration work in the TSB — providing a national platform from which best practices arising from its research (including through the monitoring on project-based initiatives) can be taught and disseminated to decision makers — addition support is required to better position/equip the Centre to play this role. This should include using the area surrounding the Centre and the PKNP as demonstration sites for different NbS and over time demonstrating the effectiveness of the interventions.

Project Approach

To address climate vulnerability and the drivers of environmental degradation in the TSB and safeguard the natural and cultural heritage of the region, the Government of Cambodia will introduce a systematic and integrated approach to landscape and watershed management. This will be implemented through two complementary projects – one positioned under the GEF-8 Integrated Programme for Ecosystem Restoration focussing on the conservation and restoration of forest ecosystems across the TSB, and this LDCF project focussing on building the resilience of communities within the TSB against the increasing impact of flood and drought. Each of these projects will be self-contained and have distinct Outcomes related to the focal areas noted above, with closely aligning Outcomes that maximise overall impact across the landscape in the TSB. The Components and Outcomes have been structured to align with the pillars of sustainable investment identified in Figure 11, including the foundation of knowledge and learning. Aligning with these pillars will ensure that the overarching benefits of the project are crosscutting and sustainable, complementing each other to achieve a fully integrated solution.

Against this background, the LDCF project will build climate resilience of vulnerable communities in the TSB while simultaneously disrupting the key drivers of land degradation to contribute to national efforts to restore watershed ecosystems and their services in the TSB. The project will particularly target rural communities who rely on natural resources (including water) for their livelihoods, while also being highly exposed to flood and drought impacts with limited capacity to adapt to these impacts without external support. Moreover, the project will support sustainable livelihoods that incentivise restoration and conservation efforts, while contributing to the country's green growth. On-the-ground efforts in the Siem Reap Province will provide critical evidence of the effectiveness of the proposed solutions, which can be scaled across the TSB and beyond using the enablers created through the governance, finance and knowledge components.



Project Components and Outcomes are summarised below, with more detailed descriptions of each Output provided in Annex G.

Component 1: Strengthening national and provincial land use planning and implementation capacities.

Outcome 1: Strengthened capacity for coordination, planning and implementation of integrated watershed management

The first Component is aligned to the Governance pillar, and will improve the coordination, planning and implementation capacities of national and provincial leadership. This approach will leverage the support of Watershed Management Committees (WMCs) that will be strengthened through the sister project to enable multi-stakeholder representation from local communities, civil society (including women's groups, indigenous groups and cultural leaders) and the private sector (including tourism, water bottling and agriculture sectors), all of which play a critical role in effective and socially responsive implementation. Through these actions, Outcome 1 will address Barrier 1 identified above and create an enabling environment for coherent and effective watershed management. In the absence of the project, the lack of integrated planning and coordination will continue to constrain sustainable development efforts in Cambodia.

To support planning processes, the project will establish a range of adaptive watershed management decision-making tools and models focussed on future climate risk and response. This will build on the existing Cambodia Environmental Management Information System (CEMIS), as well as other existing decision-making and assessment tools/software that support enhancing the function of CEMIS in enabling coherent

climate-resilient watershed management and monitoring. In particular, the project will examine and build on the efforts of the SLR project, which further developed the use of GIS-based vulnerability reduction assessment (VRA) tool. In particular, the proposed project will bridge gaps for internalising and systematically implementing the assessment methodologies to create more detailed national data layers for the VRA, as well as strengthening the inclusion of more detailed hydrological models and down-scaled climate data.

The resulting tools will provide an ongoing support platform for decision makers in both the public and private sectors, driven by the WMCs, ensuring planning decisions are informed by the latest science and lessons related to climate risk, nature-based solutions and green economy development. By integrating training protocols into the operation of the Orchid Research Centre, the project will create an enabling environment for scaling the use of the decision-making tools across Cambodia, transforming the planning process in the country thereby strengthening the role of the green economy in national priorities to graduate the country to upper-middle-income status.

Once effective coordination processes and management tools are in place, the WMCs will be engaged to review national and sub-national plans across relevant sectors related to watershed management (including forestry, water, agriculture and tourism) and to prepare policy briefs to guide the integration of climate-resilience into sectoral plans, ensuring to build on, rather than duplicate, efforts of other initiatives across the country[2]. By using a collaborative, coherent and gender-balanced governance approach, the project will ensure that proposed changes to management plans are holistic and account for the needs of the diverse stakeholder groups who rely on the natural resources provided by the watershed ecosystems for their livelihoods (including the tourism sector). Lessons learned from activities in target landscapes, such as the local-level planning under Output 1.3 and the establishment of the pilot PES schemes under Output 2.1, will serve as key reference to the revision and/or formulation of the national level policies/frameworks related to watershed governance.

The third output under the governance component will integrate climate- and gender-responsive actions into the Integrated Tonle Sap Basin Watershed Restoration, Rehabilitation, and Conservation Plan. The effective design and uptake of the plan will be further enhanced through technical capacity development within regional and national decision-making bodies. This will be done in conjunction with training on the decision-making models and tools proposed under Output 1.1, ensuring that the design process is internalised within the government planning systems, promoting the replicability and sustainability of the approach.

The upper catchment areas of the Steung Siem Reap (SSR) Watershed have been identified as a priority area for adaptation interventions within the TSB given the high level of vulnerability to extreme climate events (Figure 5), coupled with the high rate of ecosystem degradation that is impacting the provision of ecosystem services that safeguard communities against such events. Through this prioritisation, the SSR watershed will serve as the target for effective watershed management and investment planning at the local level, providing a model that can be replicated across the country and abroad (facilitated by the finance mechanisms under Components 2 and 3, and the knowledge management under Component 3). To this end, the project will develop effective co-management strategies and actions for the nature-based solutions in SSR Watershed, with great emphasize on the protection of the PKNP. The revision/updating of the SSR Watershed Management Plan[3] will be driven by extensive stakeholder dialogues, facilitated by the Watershed

Management Committee, to incorporate their traditional/customary and cultural values/knowledge about watershed management (e.g., traditional land use practices related to restoration and conservation), as well as climate hazards and vulnerabilities in the area. The traditional knowledge will be blended with scientific data and information, including the value of ecosystem services, to create a holistic management plan.

The careful vertical integration of concepts across national land use plans, the TSB Restoration, Rehabilitation, and Conservation Plan and the SSR Watershed Management Plan will assist with effective coordination and ensure replicability across the country. Moreover, the stakeholder-driver, multi-sectoral approach that will be adopted for the SSR Watershed Management Plan will ensure that the implementation of the plan is sustainable in the long term.

-

Component 2: Investment in integrated watershed management, restoration and conservation, at scale.

Outcome 2: Strenghtened resilience of communities in the Siem Reap / Phnom Kulen landscape through scalable Nature Based Solutions and sustainable finance.

The second component of the project will focus on building the resilience of vulnerable local communities in the TSB to the impacts of extreme climate events, including storms, floods and droughts, by improving the provision of regulating ecosystem services in within the agroecological systems of critical watershed areas. To maximise impact, on-the-ground restoration efforts will focus largely on the upper catchment areas of the SSR watershed, which are particularly vulnerable to the impacts of extreme climate events (see Climate Change Context above). By focusing restoration on specific geographic areas, with different treatments/approaches applied at different sites within the agroecological forest mosaic as well as allowing for control sites that are exposed to the same monitoring protocols, the project will generate a strong evidence base of best practice that can be replicated elsewhere in the TSB.

The first step will be to invest directly in nature-based solutions (NbS) in the Siem Reap/Phnom Kulen landscape to promote the provision of critical ecosystem services. The proposed NbS include direct restoration of degraded forest ecosystems as well as riparian zones along the landscape of the upper catchment areas of the Siem Reap River and its tributaries. These interventions will be targeted at reducing runoff and erosion on hillslopes and riverbanks as well as improving the concentration of soil organic carbon — thereby reducing flood risk, improving groundwater recharge, and improving soil moisture and nutrients. Such actions will also increase carbon stocks, contributing to Cambodia's mitigation NDCs. Direct restoration efforts will be complemented by other NbS, including hybrid solutions for flood control and water storage that will benefit local communities, as well as small-scale tourism facilitates including village tourism. During the next phase of project development, a gender and social assessment will be conducted to identify the specific needs of various vulnerable groups to ensure that the proposed solutions are gender-responsive. The targeted intervention area includes the PKNP, which hosts the headwaters of 36 tributaries to the Siem Reap River and holds significant cultural value to the people of Cambodia[4].

The implementation of NbS will be further supported through the introduction of community-based agroforestry to supplement restoration efforts in the agroecological landscape. These initiatives will target

high-value tree species that provide multiple benefits, including the provision of non-timber forest products (NTFPs), regulating ecosystem services (particularly for water and soil quality), and carbon sequestration. By focusing agroforestry efforts on high-value tree species, the project will incentivise the scaling and maintenance of agroforestry initiatives, thereby disrupting the drivers of degradation linked to the maladaptive expansion of agriculture into forest areas (in conjunction with improved agriculture under Component 3). For both the NbS and agroforestry, it will be important to ensure resilience of the proposed interventions in the long term. To this end, during the next phase of project development, proposed interventions will be assessed for their suitability under future climate scenarios, adjusting the proposed approach for each intervention as needed. For example, the species used for restoration and/or agroforestry will be selected that demonstrate a level of tolerance to the potential temperature and rainfall regimes of the area.

To ensure the long-term sustainability and replication of watershed management, restoration and conservation efforts, the project will establish scalable and lasting finance mechanisms to mobile resources for ongoing investment in nature-based solutions. This requires innovative solutions that engage the private sector alongside the public sector and local communities to create lasting and mutually beneficial finance mechanisms. The financial mechanisms will be structured into two elements – those that finance ongoing restoration (presented under this Component) and those that incentivise the uptake of sustainable livelihoods practices (see Component 3). This process will leverage the enabling environment created under Outcome 1 to engage with the diverse range of necessary stakeholders to achieve the project objectives. To further enhance the scalability of intervention, the project will also develop a 'scaling strategy' to provide a clear roadmap for replicating IWRM practices across other provinces of the TSB — linking closely with the innovative finance and livelihood development initiatives.

For the sustainable financing of NbS, the project will further develop the payment for ecosystem services (PES) scheme that has been piloted, but not yet fully operationalised in the Siem Reap/Phnom Kulen landscape. The PES scheme will leverage finance from downstream water users that rely on ecosystem services to regulate water supply, channelling those funds to restoration efforts upstream[5]. The operationalisation of the PES scheme will be underpinned by an intensive knowledge campaign to raise awareness of the future threats to water supply, the role of ecosystem services in regulating the hydrological cycle, and the importance of investing in integrated watershed management to preserve ecosystem services. This knowledge campaign will be informed by the gender assessment to ensure that outreach initiatives are tailored to the specific needs and circumstances of men, women, youth and other vulnerable groups. In addition to operationalising the PES scheme, the project will explore opportunities for scaling the performance-based climate resilience grant (PBCRG) modality that was piloted in the TSB through the recently concluded SLR LDCF project[6]. This will include exploring options to overcome a key gap identified through the evaluation of the SLR project, specifically in terms of mobilising sufficient co-finance for the grants by linking the PGCRG and the PES modalities, and ensuring gender equality in the benefits of the programme. Options will also be explored for assisting communities to self-organise into groups/associations that facilitate the uptake of sustainable livelihoods and land-use practices by creating incentives and improving market access opportunities.

A detailed analysis of the pilot PES scheme and PBCRG will be conducted at the next phase of project development to identify specific entry points for the project to operationalise the PES scheme at scale, focussing on a robust barrier removal strategy and detailed stakeholder engagement. This will include identifying suitable downstream water users to be part of the scheme. Preliminary assessments have identified the tourism industry and commercial water bottling plants as key water users whose business and profitability

are heavily dependent on sustainable water supply and would be suitable target sectors for the payment for ecosystem services.

Component 3: Resilient natural resource-based livelihoods.

Outcome 3: Increased adoption of climate-resilient natural resource-based livelihoods through training, market development and innovative finance mechanisms.

A key element of the proposed approach lies in the third pillar: people. Ultimately, the objective of the project is to build the resilience of local communities while conserving the natural and cultural heritage that form the foundation of the local societies. Given this objective, it is essential that people are at the heart of all aspects of project design. The approach under Component 3 will provide support to communities to improve the resilience of natural resource-based livelihoods, as well as developing the value chains and markets associated with them to incentivise the uptake of the improved resilient practices. This livelihood development will further enhance the impact of nature-based solutions under Component 2 by disrupting the negative cycles of degradation which currently exist in the TSB and improving ecosystem service provision, would not occur without the catalytic funding provided by the proposed project.

First, the project will train vulnerable smallholder farmers on climate-resilient agricultural practices that will safeguard agricultural productivity under future climate conditions. This will include conservation agriculture practices that improve soil health, reduce erosion and runoff, and conserve water — such as reducing tillage, mulching, intercropping, and crop rotation. These practices will be supported by the promotion of flood/drought tolerant crop varietals (depending on local or seasonal risks) as well as crop diversification, which enables farmers to spread their risk of crop loss, improve soil fertility, and provide a diverse range of food and income sources. Farmers will also be trained on the use of seasonal forecasts and agricultural advisories produced by MoWRAM to make informed decisions on the timing and selection of crops to plant in a given season — accounting for interannual variation as well as long-term climate change. Special consideration will be given to highly vulnerable or marginalised groups, tailoring training programmes to include options for groups with limited access to or control over land, or women whose household responsibilities or care-burden may impact their ability to take up some climate-resilient practices. Efforts under this project will coordinate closely with the PEARL project that will be funded by the GCF to promote climate-resilient agriculture in the TSB — adding the specific focus of leveraging support for improved agriculture to reduce the drivers of degradation linked to unsustainable livelihood practices.

Second, to catalyse further uptake and long-term sustainability of agroforestry initiatives (under Component 2) and climate-resilient agriculture (under this Component), the project will create an enabling market environment for sustainably produced products — including enhancing commodity value chains of key agricultural products and NTFPs, and facilitating market links and value addition practices. This will include the targeted development of opportunities for women, youth and other vulnerable or marginalised groups. Consideration will also be given to the climate resilience of the value-chain development activities themselves, ensuring that the nature of the activities are suited to future climate impacts. The market development will leverage the growing demand in Cambodia and globally for environmentally sustainable and socially responsible products. During the next phase of development, opportunities will be investigated to coordinate with the ASPIRE AT initiative which is also looking at agricultural market development in Cambodia. Specifically, the proposed

project will look to add to the impact this initiative by building the adaptive capacity of the most vulnerable smallholder farmers, introducing on-farm practices that will increase resilience to drought and flood, as well as connecting climate-resilient production to markets and catalysing private sector investment to support small farmer holders in these provinces. Opportunities will also be sought to partner with IFAD to link beneficiary farmers to financial opportunities provided by the ASPIRE AT initiative.

The market development will be complemented by the establishment of community-based enterprises — particularly targeting vulnerable women's groups. Potential enterprises identified to date include seedling nurseries to supply suitable indigenous trees for restoration initiatives and agroforestry, as well as seed multiplication and distribution businesses for climate-resilient and diversified crops. Options will also be explored for establishing restoration-focussed businesses that implement and maintain NbS in the target areas (linking with the PES model from Component 2), as well as expanding the potential for village- and eco-tourism initiatives that incentivise the sustainable management of natural resources. Training will be provided to support communities in creating self-sustaining businesses that facilitate investments at scale. Extensive stakeholder consultations will be held during the next phase of development to identify entry points for livelihood support — including options for developing strong partnerships with community-based enterprises and the private sector — as well as to ensure equitable distribution of benefits, including to women and other marginalised groups.

Finally, the uptake of resilient practices will be supported through the introduction of further innovative finance mechanisms for climate adaptation action in the TSB. There is currently a rapidly evolving financial landscape for sustainable development initiatives within Cambodia, with efforts underway to create a national framework for mobilising investment for implementing initiatives on-the-ground. During the next phase of project development, a detailed market analysis will be conducted of the ongoing initiatives to identify specific entry points for developing innovate financial mechanisms, within this evolving financial landscape, which could then be developed and rolled out during implementation. At the local level, the project will seek to create partnerships between the public and private sectors, while also involving local communities through livelihood/cultural-based financing options (linking to the livelihood support described above). This will include a focus on gender equality in access to finance. At the national-level, options will be sought to redirect budgetary funding flows and other government-led funding mechanisms — including engagements with international finance institutions and programmes — with the objective of mobilising resources towards the national goal of reaching upper middle-income status by 2030. Given the close ties between biodiversity, natural capital and climate change adaptation, options will also be explored for blending finance from different sources[7] to meet the complementary objectives of biodiversity, land degradation and climate adaptation, while ensuring that mechanisms are coordinated and avoiding overlap. Throughout this process, the Ministry of Economy and Finance will be closely engaged to mobilise larger investors beyond the local private sector, including international financial institutions. The design of the resulting financial mechanisms will consider the specific exit strategies for the project, ensuring that any mechanisms introduced are self-sustaining in the long term – including through ensuring local ownership alongside effective management arrangements and transparent fiscal processes for directing income to impactful upstream investments[8]. In the absence of such efforts to mobilise private sector finance towards climate change adaptation, a key opportunity for crowding in the diverse investment needed to bridge the finance gap for this area of sustainable development in Cambodia will not be fully realised.

The actions under this initiative will coordinate closely with the efforts through the project under the IP for Ecosystem Restoration to create cohesive, complementary finance mechanisms that maximise potential

impact for the region. Demonstrating the effectiveness of the financial mechanisms will create the evidence base required to catalyse replication of the models at scale. Moreover, by designing the financial mechanisms with the principle of adaptive management, they will generate valuable lessons that can be used to continually refine the financial mechanisms going forward. To this end, the project will aim to have the models in place by the end of year four of the project, accompanied by strong monitoring, evaluation and learning systems (building on the knowledge management systems developed under Component 3).

Component 4: Knowledge, research and Innovation

Outcome 4: Innovation in the management of watersheds across Cambodia enabled through high-quality knowledge, research and learning.

The proposed project intends to facilitate transformational, behavioural change on the ground in Cambodia, promoting climate change adaptation efforts while demonstrating their benefits to communities and industries across the TSB. This change will be underpinned by robust data generated through project activities that will promote innovation during the implementation of activities under Outcomes 2 and 3. Activities under this output will be initiated early in the implementation period, and will directly feed into the implementation of the other components.

First, the proposed project will engage with the Phnom Kulen Orchid Research and Conservation Center in providing knowledge and scientific information. The Center is currently carrying out various research on native species and conservation with external partners such as the Kew Royal Botanic Gardens (UK), and the French National Museum of Natural History. The project will collaborate with these institutions to enhance the understanding of biodiversity conservation and ecosystem in building resilience, as well as supporting the necessary studies to enhance knowledge and scientific information of current and future climate risks, impacts, and adaptation practices in the SSR watershed — including assessing gender-specific risks, vulnerabilities and needs. This research will include understanding ecosystem services in the SSR watershed, and the interaction between the environment, culture, and tourism, as well as the role these variables play in local livelihoods and resilience. In particular, the scientific assessments will identify suitable native species for ecosystem-based adaptation and improve understanding of their roles in maintaining the function of the local ecosystem services. This will include the role of different species in maintaining the soil nutrient cycles, as well as potential sources of food, medicine and income for local households, particularly for supporting communities during disaster events. Additional assessments will also be conducted to identify suitably resilient cultivated species (such as crops, fruits and vegetables) and farming techniques that strengthen climate smart agriculture practices, improve competitiveness of local products, and support local livelihood. To this end, the project will seek to partner with institutions such as the Royal University of Agriculture, and Preak Leap National College of Agriculture — both of which are actively engaged in research in the area of climate smart agriculture and agroecology — to support the agricultural studies.

Next, the project will explore and develop innovative technologies for supporting ecosystem restoration. The innovations will cover a range of technologies and practices in climate smart agriculture, agroecology and soil conservation to enhance community and ecosystem resilience in the TSB — tailoring the technologies and practices to the changing climate and societal drivers of degradation. The project will identify existing innovations being implemented to support local communities and farmer depending on biodiversity resources

as well as to improve resilience of ecosystem. For instance, the Conservation Agriculture and Sustainable Intensification Consortium (CASIC) led by MAFF.

Finally, the project will establish a knowledge management system that will serve to disseminated knowledge generated through the project, ensuring that the information generated through the research is actively integrated into the implementation of activities under this project. Moreover, the data platform will not only cover the project's research outputs, but also the lessons learned through implementation (Component 5), which will be collected and assessed through the project's monitoring and evaluation system. Knowledge products will be gender disaggregated. The continual monitoring and assessment of project interventions will also enable adaptive management throughout the project implementation period and beyond, with the lessons learned being disseminated to improve the success of future initiatives. To promote the upscaling and replication of project interventions, the knowledge management platform will include a strong outreach component. Furthermore, the project will develop a detailed, gender-responsive communication strategy and action plan, which will identify the key target groups and outline the communication aims towards these individual groups.

Component 5: Monitoring, Evaluation and Learning

By targeting on-the-ground implementation in the Siem Reap/Phnom Kulen landscape, this will serve as a flagship project that provides a unique opportunity to catalyse replication given that it hosts the globally renowned Siem Reap/Angkor Archaeological Area, the presence of which will magnify the project's innovations, behavioural change, and learnings on the co-dependency between watershed ecosystem services, human settlements, and economic/cultural activities nationally/internationally. The resultant spotlight effect will lead to systems transformation and assist in the project's capacity-building replication efforts on restoration-focused land management practices.

Outcome 5: Lessons learned curated through project M&E and disseminated both nationally and internationally to promote the scaling of interventions to other watersheds across Cambodia and the surrounding region.

To promote the replicability of the proposed approach, the project will create a robust monitoring, evaluation and learning platform. As noted in Figure 11, knowledge forms the foundation of the three pillars, and is critical for the sustainable and scalable implementation of watershed management initiatives. The knowledge generated through the project interventions will be continually captured and evaluated, not only enabling adaptive management in the target sites, but also creating a foundation from which the project interventions can be replicated elsewhere in Cambodia, as well as across the region.

A proactive steering committee will be established that will be mandated to coordinate implementation, monitoring and evaluation processes, and to ensure that the knowledge generated is adequately integrated in the knowledge management platform. This role will include annual work planning, ensuring that adaptive action is taken where necessary to account for lessons learned through the previous year's implementation and subsequent monitoring. Project progress and implementation reports will inform on the project results including progress in gender responsive actions and stakeholder engagement.

Finally, the environmental and social management mechanisms will be operationalised to ensure that potential risks identified during the project development as well as additional risks identified during implementation are

constantly monitored and mitigated. At the onset of the project, the initial social and environmental risk screening will be reviewed, and the appropriate management actions will be identified and integrated into the annual work plan. Gender and social engagement plans will also be reviewed and refined, with particular focus applied to ensuring that project activities are gender responsive, and that indigenous peoples and local communities (IPLCs) are adequately consulted and engaged in implementation.

Stakeholders and Implementation Modality.

The proposed project will be implemented using the National Implementation Modality (NIM) with **Ministry of Environment (MoE)** taking the role of Implementing Partner. UNDP will, during the PPG stage, undertake detailed assessments of capacity gaps and limitations and, in consultation with the GEF identify any potential areas of support. We will also assess the entity that is best placed to provide such support if needed. The proposed implementation modality will be assessed further during PPG employing tools such as HACT micro-assessment and Partner Capacity Assessment, and as per UNDP policies and procedures. MoE is responsible for environmental protection and natural resource management in Cambodia. The Department of Climate Change (DCC) within MoE, positioned under the General Directorate of Policy and Strategy (DGPS), is responsible for coordinating the development and implementation of the climate change response in Cambodia and reporting on Cambodia's commitments under the UNFCCC. DCC supports the development and implementation of legal instruments, policies, strategic plans, action plans, programs, and projects to reduce greenhouse gas emissions and to adapt to climate change as well as for conducting monitoring and evaluation, and regular reporting.

In addition to the lead Implementing Partner, it is expected that several Responsible Parties will be included in the implementation modality to distribute responsibility for specific Outputs to agencies with sector-specific experience/expertise to maximise the environmental and adaptation benefits. *Table 3* list project stakeholders identified to date and their potential roles in project implementation. The stakeholders described in this list are not exhaustive and will be further clarified in relation to their specific engagement during the full project proposal development.

Extensive multi-stakeholder engagement is planned for the next phase of project development, as well as throughout the implementation phase. Component 1 includes measures to coordinate ongoing engagement, and a detailed Stakeholder Engagement Plan will be developed during the next phase of project development prior to endorsement. Stakeholder consultation arrangements will be structured specifically to include poor and marginalized groups to encourage equitable benefit and involvement in the project. More details on the stakeholder engagement risks – including those related to gender, vulnerable groups and Indigenous People – and initial strategies for mitigating these risks during the next phase of project development and implmentation are presented in the Pre-SESP screening.

Table 3: Project stakeholders and potential Responsible Parties

Stakeholders and Relevant Mandate to the Project	Potential Role in the Project
National Council for Sustainable Development (NCSD) NCSD was established in 2015 with a mandate for coordination, preparing, and monitoring the implementation of policies and projects/programs on climate change. NCSD is an inter-ministerial body in charge of coordinating climate change, green growth, and biodiversity issues. The council consists of 36 members from high-level representatives across line ministries/agencies. General Directorate of Policy and Strategy (DGPS) under the MoE was created to act as the secretariat to the NCSD.	Overall strategic advice of project implementation and ensure alignment of the project strategies with the national sustainable development goal. Project progress will be reported to NCSD.
Department of Biodiversity (DoB) and the Phnom Kulen Orchid Research and Conservation Centre DoB is also another main structure of the DGPS of MoE with the core responsibility for development of legal instruments, policies, strategic plans,	Technical support for the implementation of project activities and coordination with stakeholder related to biodiversity. The Phnom Kulen Orchid Research and Conservation Centre, will play a role in research, education and capacity building to

Stakeholders and Relevant Mandate to the Project	Potential Role in the Project
action plans, programs, and projects on biodiversity. DoB was assigned to support coordination and reporting matters for the UNCBD. It is the focal point for establishment and management of the Phnom Kulen Orchid Research and Conservation Centre.	promote sustainable management of biodiversity and ecosystems.
General Directorate of Nature Protection and Conservation (GDANPC) GDANPC manages and facilitates biodiversity protection and conservation and sustainable use of natural resources within Protected Areas (PAs) system.	PAs management of the targeted PAs within the TSB, including the development and implementation of related policy and law enforcement. They will also provide support to PES implementation in the targeted PAs.
General Directorate for Local Community (GDLC) Support local communities in PAs to contribute to the management, protection and conservation of natural resources, biodiversity and ecology in the protected areas.	Supporting local communities livelihood activities in the targeted protected areas and strengthening management of Community Protected Areas.
Ministry of Water Resources and Meteorology (MoWRAM) MoWRAM has responsibility in observing and managing all activities related to water resources and meteorology development and natural disasters (flood and drought). MoWRAM sits as a chair of the Tonle Sap Authority. According to the Law on Water Resources Management, MoWRAM is also in charge of watershed management (degradation and run-off) in Cambodia.	Given its core role in water issue and leadership in TSA as well as watershed issue will be one of the project's main partners. Specific involvement includes technical and policy direction and coordination on project activities on watershed management planning, water resources, and facilitation of stakeholders on the TSB activities.
Ministry of Land Management, Urban Planning and Construction MLMUPC is a core government body in charge of the formulation of policies and plans for land use and planning at the national and sub-national levels.	Technical input and supports for land management, particularly on landscape planning of the TSB.
Ministry of Economy and Finance (MEF)[9] Responsible for the administration of financial and economic policy and affairs. Its mandate includes the establishment of the country's uniform financial system, preparation and implementation of the national budget, distribution and redistribution of the total national revenues, inspection of the public's finances, and monitoring of the government's economic and financial policies.	MEF will be closely engaged to mobilise larger investors beyond the local private sector, including international financial institutions
Ministry of Agriculture, Forestry and Fisheries (MAFF) MAFF in charge of the following areas: agriculture, livestock, fisheries, forestry, and rubber. MAFF also consists of Forest Administration (FA) and Fisheries Administration (FiA). Given the importance of agriculture in rural Cambodia, MAFF has extensive network of extension workers at the local level to support farmers in adopts and application of farming method, technique and technologies as well as disseminating agricultural knowledge, information and technology.	Technical guidance on agriculture, forestry and fisheries. Support livelihood improvement of project targeted population, mainly farmers, Community Forestry and Community Fisheries.
Ministry of Rural Development (MRD) MRD's core mandates are development and maintenance of irrigation, water supply and sanitation infrastructure in the rural areas in Cambodia. MRD is also a central government focal point for indigenous people. It is in charge of the National Policy on the Development of Indigenous Peoples (NPDIP).	Engagement small scale climate resilience infrastructure supported by the project. Given the presence of indigenous communities in the TSB, MRD will also provide support on activities related to IPs.
Ministry of Women's Affairs and Provincial Departments of Women's Affairs MoWA is responsible for promoting gender equality and empowerment of women.	Input on the gender perspective in climate adaptation and in natural resource management of the project. Support in empowering women through tourism and natural resource livelihood development.
Apsara Authority APSARA was formed in 1995 under the Royal Decree or the protection and management of the Angkor Protected Landscape and the heritage sites in Siem Reap province.	APSARA will be engaged regarding activities on cultural and heritage protection of the Steung Siem Reap watershed. Lessons learn from Apsara Authority's past project on livelihoods and conservation will be considered and guide the implementation of this project.
National Committee for Sub-National Democratic Development (NCDD) NCDD is the inter-ministerial mechanism for promoting democratic development at the sub-national levels in Cambodia. Under the National Program on Sub-national Democratic Development Phase 2 (NP-2) 2021-2030, NCDD provides technical and financial to support sub-national administrations to respond to development activities (including climate	NCDD-S will be a partner to support the implementation of the PBCRG. The Performance Based Grants (PBG) Manual was developed and approved by NCDD-S since 2019, yet it has not been fully operationalized. NCDD-S will provide capacity development on the PBCRG to the targeted sub-national administrations of the is LDCF project.

Stakeholders and Relevant Mandate to the Project	Potential Role in the Project
resilience). The secretariat of NCDD (NCDD-S) is responsible to manage the Performance Based Grant system and to report to Ministry of Economic and Finance as well as the donor agency on results achieved.	
Sub-National Administrations (SNAs) of the seven provinces along the TSB SNAs are structured into three tiers: Commune/Sangkat, District/Municipality, and Provincial Councils. Under the Decentralization and De-concentration (D&D) reform, SNAs have role and functions to development and implementation of local development activities. One of the important D&D reform aspects is functional assignment with different functions including climate change and natural resource management being delegated/transferred to SNAs. In addition, the provincial and district administrations are also in charge of watershed management matter in their capacity of the provincial/district watershed management committees.	Preparation and implementation of climate change adaptation activities mainstreamed in the development plans and investment programs. Input to and directly implementing the landscape planning/watershed management supported under the project.
Development Partners (DPs) and International NGOs (INGOs) There are array of DPs and INGOs working in the TSB and the main actors supporting climate change, water, forestry and fisheries and ecosystem are ADB, EU, IFAD, FAO, WB, UNESCO, USAID, and WCS.	Cooperation and co-financing of certain activities. For instance, climate-resilient and livelihood enhancement, and landscape planning/watershed management. Specific areas of cooperation and partnership terms will be explored during the full project proposal development.
Local NGOs Relevant local NGOs implement projects related to climate change, livelihood, natural resource conservation (land, forestry and water) and cultural preservation.	Technical input and possible on-the-ground implementation.
Private Sector Companies such as mineral water, agriculture and agroforestry value chains, tourist operators and hotel owners in TSB and Siem Reap province. Examples of private sector platforms to be engaged by the project include as the Siem Reap Tourism Club, Siem Reap Chamber of Commerce and Organic Vegetable Farmer Association. Any private sector partners engaged directly in the project will go through relevant due-diligence processes.	Partners in operationalisation of financial mechanism and support livelihood improvement of the targeted communities. The project will engage closely with the private sector during the PPG phase to identify specific entry points to help catalyse private investment.
Local targeted communities Vulnerable populations to climate change. Primary users of and customary management of forest, water and land.	Co-management of project activities and beneficiaries of capacity building on climate change, land use management, water resource management, livelihood support, law enforcement and project activities.

[1]The MoE is mandated to manage environmental protection — including natural resource conservation, Protected Areas (PAs) management and climate change. The MoWRAM leads water resources management and development — including the management of the Tonle Sap. The MAFF is responsible for the protection and management of forest, wildlife and fisheries resources outside as PAs well as Economic Land Concessions (ELCs). Finally, the MLMUPC, is responsible for land administration, land management and land distribution.

[2] Indicative plans and policies are presented in Annex G and will be refined during full project preparation through a consultative process.

[3] the existing SSR Watershed Management Plan was developed in 2005.

[4] During the next phase of project development, assessments will be done to identify suitable locations for initial phases of restoration and agroforestry, targeting government land where land tenure rights are clear and implementation would not be delayed by the finalisation of ESMP and FPIC processes during the first year of implementation. Following that, the sites will be expanded using the detailed spatial map developed for the SSR Watershed Management Plan.

[5] A key component of this output will be ensuring equal access to the benefits of the PES system, particularly in terms of highly vulnerable or marginalised groups.

[6] Reducing the Vulnerability of Cambodian Rural Livelihoods through Enhanced sub-national Climate Change Planning and Execution of Priority Actions (SRL) Project

[7] Including potentially accessing voluntary carbon markets.

[8] UNDP is currently presenting recommendations to the government on different revenue management mechanisms, such as the Environmental and Social Fund.

[9] The project will engage with the OFP during the PPG phase and undertake an appropriate capacity assessment to determine whether MEF can serve as the institutional for delivering aspects of the project's engagement in mobilizing innovative and private finance – potentially as an executing partner or responsible party.

Coordination and Cooperation with Ongoing Initiatives and Project.

Does the GEF Agency expect to play an execution role on this project?

No

If so, please describe that role here. 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

As noted in Section A above, the Government of Cambodia is engaged in several initiatives to build resilience around the TSB, including in the high-priority Siem Reap region. These initiatives are being closely coordinated by the Ministry of Environment to ensure full complementarity and avoid overlap in the intervention strategies. To this end, UNDP, together with the MoE, have planned for detailed engagements with development partners for the next phase of project development to identify entry points for collaboration. This includes engagements with FAO as the lead agency on both LDCF and GCF projects in the region. Moreover, through their role as GEF agency for both the proposed LDCF project and the Cambodia child project of the GEF-8 Integrated Programme on Ecosystem Restoration (which is currently under development), UNDP will ensure a level of consistency in the project development teams for both projects. This will maximise opportunity for alignment and cooperation between the two projects.

The project will be executed by the **Ministry of Environment (MoE)** taking the role of Implementing Partner. However, UNDP will, during the PPG stage, undertake detailed assessments of capacity gaps and limitations and, in consultation with the GEF, and identify any potential areas of support. We will also assess the entity that is best placed to provide such support if needed.

Core Indicators

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**

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.

false

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

false
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)
false	**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	25.00%
Nature-based management	25.00%
Climate information services	0.00%
Coastal zone management	0.00%
Water resources management	30.00%
Disaster risk management	20.00%
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 **false**	Change in mean temperature **true**	Increased climatic variability **true**	Natural hazards **false**
Land degradation **true**	Coastal and/or Coral reef degradation **false**	Groundwater quality/quantity **false**	

CORE INDICATORS – LDCF

	Total	Male	Female	% for Women
CORE INDICATOR 1 Total number of direct beneficiaries	70,400	35,200.00	35,200.00	50.00%
CORE INDICATOR 2 (a) Area of land managed for climate resilience (ha) (b) Coastal and marine area managed for climate resilience (ha)	80,400.00 0.00			
CORE INDICATOR 3 Number of policies/plans/ frameworks/institutions for to strengthen climate adaptation	7.00			
CORE INDICATOR 4 Number of people trained or with awareness raised	1520	760.00	760.00	50.00%
CORE INDICATOR 5	3.00			

Number of private sector enterprises engaged in climate change adaptation and resilience action				

Key Risks

	Rating	Explanation of risk and mitigation measures
CONTEXT		
Climate	Moderate	Extreme climate events such as drought or floods may impact on-the-ground implementation of NbS. The project activities will consider the expected timing of rainfall events, planning community consultations outside of the rainy season where possible, and planting at the onset of the rain season, to maximise growth potential and allow plants to establish root systems before heavy rains start.
Environmental and Social	Substantial	On-the-ground project interventions will focus on NbS and other conservation measures that will have a positive impact on the environment. However, some E&S risks have been identified, particularly related to land tenure and economic displacement. A risk mitigation plan for matters related to tenure will be developed in consultation with relevant stakeholders including communities, following extensive screening to determine the extent of the issue.
Political and Governance	Low	There is strong political support for the project. While capacity constraints are currently impacting governance of watersheds in the TSB, Component 1 of the project will directly address governance risks by building capacity and strengthening policy alignment.
INNOVATION		

Institutional and Policy	Moderate	Component 1 of the project will seek to update various plans and policies related to watershed management. There is a risk that institutions involved in this process lack the technical capacity to develop, adopt and implement the proposed actions, impacting the roll out of interventions under Component 2. This will be mitigated by developing coordination mechanisms and decision support tools that will strengthen capacity, as well as ensuring close coordination with relevant stakeholders throughout the process to continue to identify and fill capacity gaps.
Technological	Low	The project design is centred on nature-based solutions, including agroforestry. If these interventions are not adequately tailored to the local conditions and needs of vulnerable communities, there is a risk that they may not achieve the environmental benefits from ecosystem services, or may not be adequately sustained. To mitigate this risk, detailed baseline assessments and stakeholder consultations will be used to identify the optimal solutions that generate benefits for the environment as well as the communities that rely on them. The primary technological risk revolves around the knowledge components, which will involve the development of decision support tools and online knowledge databases. These technologies require ongoing support for hosting and maintaining the online systems, with risk of the systems becoming non-operational after project funding ceases. To mitigate this risk, the project will build on existing systems that have strong local ownership

		(including CEMIS), ensuring that host institutions have the technical and financial capacity to maintain the systems in the long term.
Financial and Business Model	Moderate	Outcome 3 will introduce innovative finance mechanisms for climate adaptation action. Given the rapidly evolving financial landscape for sustainable development initiatives within Cambodia, there is risk that these models do not align with the priorities of key partners – including private sector entities – or that they overlap/duplicate efforts from other initiatives. This could reduce interest in partnerships, inhibiting the crowding in of diverse investments needed to sustainable adaptation efforts in the long-term. To mitigate this risk, a market analysis will be conducted of the ongoing initiatives to identify specific entry points for developing innovate financial mechanisms, within this evolving financial landscape, which could then be developed and rolled out during implementation.
EXECUTION		
Capacity for Implementation	Low	Based on HACT assessment, the implementing partner (IP) is considered low risk.
Fiduciary	Moderate	As noted above, the HACT assessment of the IP showed low risk, as the IP is familiar with the relevant financial management and procurement processes, as well as project monitoring requirements. However, experience has shown that procurement processes of highly qualified experts by IP are challenging. When necessary, Country Office support to NIM project will be considered. Further financial management risks may arise in relation to the financial

		mechanisms to be established under Outcome 2. UNDP is currently presenting recommendations to the government on different revenue management mechanisms, such as the Environmental and Social Fund, which could be used to mitigate the risk.
Stakeholder	Moderate	Risks may present if communities are not adequately engaged in the design of the project, or feel that benefits are not suitably distributed, which could impact the sustainability of interventions. This will be mitigated by adopting a collaborate governance approach underpinned by detailed, multistakeholder engagement. However, the complexity in multi-stakeholder engagement may slow the development and implementation processes.
Other	Low	Disease outbreaks, such as a resurgence of Covid-19, could slow down the implementation. Potential impact will be monitored closely and mitigation actions will be developed as necessary.
Overall Risk Rating	Substantial	The project risk is Substantial and the project will engage in the development of a Comprehensive Stakeholder Engagement Plan, a Gender Action Plan as well as an Environmental and Social Management Framework (ESMF), the Indigenous People Planning Framework (IPPF), the Process Framework (PF), and the Livelihood Action Framework (LAF), and integrate risk mitigation strategies into the project development. The project will continue to monitor risks throughout the project development

		and implementation phases, and will adopt an adaptive management approach to mitigate against any additional risks that may arise

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

Describe 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.

Confirm if any country policies that might contradict with intended outcomes of the project have been identified, and how the project will address this.

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. (max. 500 words, approximately 1 page)

This multi-focal-area project has been designed to promote complementary approaches in watershed management, restoration and conservation that align with both the Biodiversity and the Climate change programming strategies of GEF-8, alongside national priorities. Specific areas of alignment are outlined below:

GEF-8 Climate Change Adaptation Goal: To facilitate transformational adaptation in developing countries, towards achieving the Paris Agreement's global goal on adaptation pathways.

The proposed project has been designed to focus on two of the four themes of interest for LDCF under GEF-8, namely Water and Nature-Based Solutions. This multi-disciplinary approach was adopted in recognition of the interdependency between human well-being and a healthy environment, particularly in an area such as the TSB where people's livelihoods are deeply engrained in the natural and cultural heritage of the landscape. The project is also aligned with two Priority Areas and related entry points for the LDCF under GEF-8, namely: i) Priority Area 2: Strengthening Innovation and Private Sector Engagement — Addressed through Component 2, focusing on the entry points of enabling the conditions for private sector action and accelerating micro, small, and medium enterprises; and ii) Priority Area 3: Fostering Partnership for Inclusion and Whole-of-Society Approach — focused on the entry point of institutional strengthening and capacity building and innovative financing opportunities to support whole-of society approach. Finally, Components 1 and 3 combined address the three levers of transformation identified for LDCF, namely policy coherence and mainstreaming of climate adaptation; strengthened governance for adaptation; and knowledge exchange and collaboration.

National Priorities

From a direct climate change perspective, the project is aligned with Cambodia's commitments under the Update Nationally Determined Contribution (NDC) and the Long-Term Strategy for Carbon Neutrality (LTS4CN). The updated NDC also aims at halving the deforestation rate and reducing 23% of emissions from the agriculture sector, as well as proposing restoration — recognizing the vulnerability of the country's water resources. The watershed management actions are therefore aligned with the actions proposed under the NDC for resilient water resources management and integrated groundwater management. The project also aligns with the Cambodia Climate Change Strategic Plan (CCCSP, 2014-2023), specifically contributing to: Objective 1 to promote climate resilience through improving food, water and energy security, including targeting opportunities in agricultural production systems, ecosystems, and protected areas; Objective 3 to ensure climate resilience of critical ecosystems, which specifies the TSB, as well as its protected areas and cultural heritage sites; and Objective 5 to improve capacities, knowledge and awareness for climate change responses.

From an indirect climate change perspective related to the NbS approach, the project will support the government's capacity to achieve the vision of the National Biodiversity Strategic and Action Plan (NBSAP), specifically that by 2050: Cambodia's biodiversity and its ecosystem services are valued, conserved, restored where necessary, wisely used and managed so as to ensure equitable economic prosperity and improved quality of life for all in the country. The project will also support the implementation of the National Action Plan to Combat Land Degradation 2018-2027 (in which Siem Reap watershed is identified as one of the top 10 prioritized watersheds) as well as Cambodia's Land Degradation Neutrality Targets in achieving land degradation neutrality by 2030.

D. POLICY REQUIREMENTS

Gender Equality and Women's Empowerment:

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

Yes

Stakeholder Engagement

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

Yes

Were the following stakeholders consulted during project identification phase:

Indigenous Peoples and Local Communities:

Civil Society Organizations:

Private Sector:

Provide a brief summary and list of names and dates of consultations

Consultations have been held in early 2023 with the Operational Focal Point for Cambodia and the Ministry of Environment (MoE) who originated the project concept and engaged the UNDP as the GEF agency.

(Please upload to the portal documents tab any stakeholder engagement plan or assessments that have been done during the PIF development phase.)

Private Sector

Will there be private sector engagement in the project?

Yes

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

Yes

Environmental and Social Safeguard (ESS) Risks

We confirm that we have provided indicative information regarding Environmental and Social risks associated with the proposed project or program and any measures to address such risks and impacts (this information should be presented in Annex D).

Yes

Overall Project/Program Risk Classification

PIF	CEO Endorsement/Approval	MTR	TE
High or Substantial			

E. OTHER REQUIREMENTS

Knowledge management

We confirm that an approach to Knowledge Management and Learning has been clearly described in the Project Description (Section B)

Yes

ANNEX A: FINANCING TABLES

GEF Financing Table

Indicative 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 ($)
UNDP	LDCF	Cambodia	Climate Change	LDCF Country allocation	Grant	6,684,703.00	635,047.00	7,319,750.00
Total GEF Resources ($)						**6,684,703.00**	**635,047.00**	**7,319,750.00**

Project Preparation Grant (PPG)

Is Project Preparation Grant requested?

true

PPG Amount ($)

200000

PPG Agency Fee ($)

19000

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	Grant / Non-Grant	PPG($)	Agency Fee($)	Total PPG Funding($)
UNDP	LDCF	Cambodia	Climate Change	LDCF Country allocation	Grant	200,000.00	19,000.00	219,000.00
Total PPG Amount ($)						**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**

Indicative Focal Area Elements

Programming Directions	Trust Fund	GEF Project Financing($)	Co-financing($)
CCA-1-3	LDCF	6,684,703.00	15000000
Total Project Cost		**6,684,703.00**	**15,000,000.00**

Indicative Co-financing

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount($)
Recipient Country Government	Ministry of Environment	Public Investment	Investment mobilized	15000000
Total Co-financing				**15,000,000.00**

Describe how any "Investment Mobilized" was identified

The total amount of co-financing mobilized for the project is expected to be USD 15 million and will be derived through mobilised public investments. “Investment Mobilized” are those co-financing that are not “recurrent expenditures”, “grant”, or “loan” for the project, as described in the GEF Co-financing policy. These mobilized investments are from the projects that are currently being implemented in Cambodia that support the overall objectives of the proposed LDCF project. The details of these investment mobilized co-financing along with the co-financing letters will be obtained during the PPG stage and submitted with the CEO Endorsement Package.

ANNEX B: ENDORSEMENTS

GEF Agency(ies) Certification

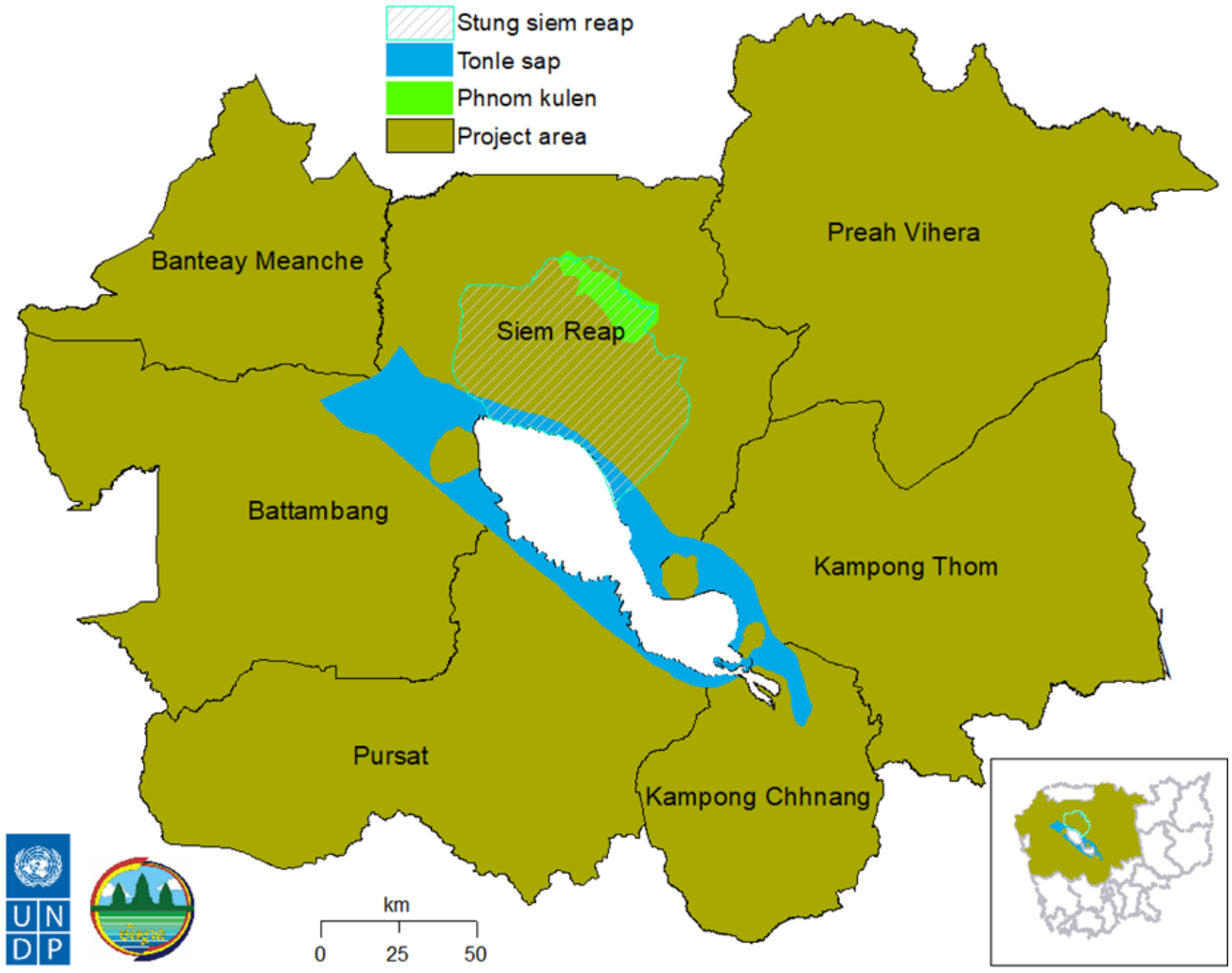
GEF Agency Type	Name	Date	Project Contact Person	Phone	Email
GEF Agency Coordinator	Pradeep Kurukylasuriya				pradeep.kurukulasuriya@undp.org
Project Coordinator	Karma Lodey Rapten				karma.rapten@undp.org

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

Name	Position	Ministry	Date (MM/DD/YYYY)
H.E. San Vanty	Secretary of State, MoE	Ministry of Environment	12/1/2023

ANNEX C: PROJECT LOCATION

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



ANNEX D: ENVIRONMENTAL AND SOCIAL SAFEGUARDS SCREEN AND RATING

(PIF level) Attach agency safeguard screen form including rating of risk types and overall risk rating.

Title
Pre-SESP

ANNEX E: RIO MARKERS

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

ANNEX F: TAXONOMY WORKSHEET

Level 1	Level 2	Level 3	Level 4
☒Influencing models	☒Transform policy and regulatory environments		
	☒Strengthen institutional capacity and decision-making		
	☒Convene multi-stakeholder alliances		
	☒Deploy innovative financial instruments		
☒Stakeholders	☒Indigenous Peoples		
	☒Private Sector	☒SMEs	
		☒Individuals/Entrepreneurs	
	☒Beneficiaries		
	☒Local Communities		
	☒Civil Society	☒Community Based Organization	
		☒Non-Governmental Organization	
		☒Academia	
	☒Type of Engagement	☒Information Dissemination	
		☒Partnership	
		☒Consultation	
		☒Participation	
	☒Communications	☒Awareness Raising	
		☒Behavior Change	
☒Capacity, Knowledge and Research	☒Enabling Activities		
	☒Capacity Development		
	☒Knowledge Generation and Exchange		
	☒Targeted Research		
	☒Learning	☒Theory of Change	
		☒Adaptive Management	
		☒Indicators to Measure Change	
	☒Innovation		
	☒Knowledge and Learning	☒Knowledge Management	
		☒Innovation	
		☒Learning	
	☒Stakeholder Engagement Plan		
☒Gender Equality	☒Gender Mainstreaming	☒Beneficiaries	
		☒Women groups	
		☒Sex-disaggregated indicators	
		☒Gender-sensitive indicators	
	☒Gender results areas	☒Participation and leadership	
		☒Access to benefits and services	
		☒Capacity development	
		☒Awareness raising	
		☒Knowledge generation	
☒Focal Areas/Theme	☒Forests	☒Forest and Landscape Restoration	
	☒Land Degradation	☒Sustainable Land Management	☒Restoration and Rehabilitation of Degraded Lands
			☒Ecosystem Approach
			☒Integrated and Cross-sectoral approach
			☒Sustainable Livelihoods
			☒Sustainable Agriculture
			☒Sustainable Forest/Woodland Management
			☒Improved Soil and Water Management Techniques
			☒Drought Mitigation/Early Warning
	☒Climate Change	☒Climate Change Adaptation	☒Climate Finance
			☒Least Developed Countries
			☒Climate Resilience
			☒Ecosystem-based Adaptation
			☒Private Sector
			☒Innovation
		☒Climate Change Mitigation	☒Livelihoods
			☒Agriculture, Forestry, and other Land Use
		☒UNFCCC	☒Nationally Determined Contribution