Docusign Envelope ID: FDE8BF00-9551-8969-83C0-C47F39DD9F48

Project title: Building resilient livelihoods through nature-based solutions in the Tonle Sap Basin and Siem Reap/Phnom Kulen landscape		
Country(ies): Cambodia	**Implementing Partner (GEF Executing Entity):** Ministry of Environment	**Execution Modality:** National Implementation (NIM)
Contributing Outcome (UNSDCF/CPD, RPD, GPD): 2.1, 3.1, 3.3, 3.4		
UNDP Social and Environmental Screening Category: Substantial		**UNDP Gender Marker:** GEN2
Quantum Award ID: 1542460		**Quantum Project ID: 01005345**
UNDP PIMS ID number: 9682		GEF Project ID number: 11332
LPAC meeting date: 14 January 2026		
Last possible date to submit to GEF: 20 June 2025		
Latest possible CEO endorsement date: 20 December 2025		
Project duration in months: 60		
Planned start date: 18 June 2026		**Planned completion date:** 18 June 2031
Expected date of Mid-Term Review (MTR) submission to the GEF: 18 December 2028		**Expected date of Terminal evaluation (TE) submission to the GEF:** 18 December 2031
Expected Operational Closure Date: 18 March 2032		**Expected Financial Closure Date:** 18 September 2032

Brief project description:

The Tonle Sap Basin (TSB), a vital economic and cultural region in Cambodia, is facing significant impacts from climate change hazards such as rising temperatures, altered rainfall patterns (dryer dry seasons, wetter wet seasons), and more frequent droughts and floods. These hazards — combined with accelerating forest degradation and unsustainable land management practices (such as expanding agriculture and inadequate water conservation agriculture practices) — disrupt hydrological cycles, threaten water resources and agricultural productivity, and undermine natural resource-based livelihoods and tourism, a key economic sector. As a result, communities are resorting to maladaptive practices, such as expanding agriculture into forest areas; ultimately worsening environmental degradation.

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To address these challenges, the Cambodian government will be implementing an LDCF project aimed at building community resilience to fluvial floods and droughts in the TSB, **contributing to Cambodia's green growth objectives**. The initiative takes a systems-based approach, focusing on three key pillars identified by Royal Government of Cambodia — governance, finance, and people— supported by a foundation of research and knowledge-sharing. The approach will involve conserving and rehabilitating degraded forest and riparian ecosystems to restore critical ecosystem services (such as regulation of hydrological flows) and employing innovative financing mechanisms through blended finance and challenge funds to ensure long-term sustainability. Community engagement will focus on tackling the root causes of degradation, such as expanding/shifting agriculture and monocropping of commodity trees, while preserving livelihoods and cultural heritage. Together, the actions will achieve five core Outcomes, focusing on strengthened capacity for coordination, planning and implementation; strengthened resilience of communities in Siem Reap province and the Phnom Kulen landscape through scalable nature-based solutions for forest restoration and climate-resilient agriculture as well as sustainable blended finance mechanisms; increased adoption of climate-resilient natural resource-based livelihoods; knowledge management and innovation in agroecological value chains through digital technologies; and the curation and dissemination of lessons learned through project implementation.

FINANCING PLAN	
GEF Trust Fund grant: LDCF	USD 6,684,703.00
UNDP TRAC resources	0
Confirmed cash co-financing to be administered by UNDP	0
(1) Total Budget administered by UNDP	USD 6,684,703.00
(2) Total confirmed co-financing to this project not administered by UNDP	USD 15,000,000.00
(3) Grand-Total Project Financing (1)+(2)	USD 21,684,703.00

Signatures:

Signature: **Eang Sophalleth** **Minister** **Ministry of Environment**	Agreed by Implementing Partner	**Date/Month/Year:** 21/05/2026
Signature: **Enrico Gaveglia** **Resident Representative** **UNDP Cambodia**	Agreed by UNDP	**Date/Month/Year:** 21/05/2026

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ACRONYMS

ADB	Asian Development Bank
APSARA	Authority for the Protection and Safeguarding of Angkor and the Region of Angkor
BPPS NCE	Bureau for Policy and Programme Support, Nature, Climate and Energy
BIOFIN	Biodiversity Financing
CCA	Climate Change Adaptation
CBET	Community-based ecotourism
CBO	Community-based organisation
CCCSP	Cambodia Climate Change Strategic Plan
CEMIS	Cambodia Environment Management Information System
CF	Community Forest
CPA	Community-protected Area
CSO	Civil Society Organisation
CRA	Climate-resilient agriculture
DST	Decision support tool
ELC	Economic Land Concession
ER-IP	Ecosystem Restoration Integrated Programme
ESS	Environment and Social Safeguard Standards
FA	Forestry Administration
FAO	Food and Agriculture Organisation
FPIC	Free, Prior and Informed Consent
FSP	Full Sized Project
GCP	Global Coordination Project
GEBs	Global Environmental Benefits
GEF	Global Environment Facility
GEFSEC	Global Environment Facility Secretariat
IFAD	International Fund for Agriculture Development
IFMs	Innovative Finance Mechanisms
INRM	Integrated natural resource management
IPLCs	Indigenous People and Local Communities
IWM	Integrated Water Management

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KMS	Knowledge-management system
LDN	Land Degradation Neutrality
LDCF	Least Developed Countries Fund
MAFF	Ministry of Agriculture, Forestry and Fisheries
M&E	Monitoring and Evaluation
MEL	Monitoring, Evaluation, and Learning
MoE	Ministry of Environment
MEF	Ministry of Economy and Finance
MoU	Memorandum of Understanding
MoWRAM	Ministry of Water Resources and Meteorology
FSP	Full Sized Project
MTR	Mid-term Review
NAP	National Adaptation Plan
NbS	Nature-based Solutions
NCA	Natural Capital Accounts
NBSAP	National Biodiversity Strategy and Action Plan
NDC	Nationally Determined Contribution
NGO	Non-governmental organisation
NTFP	Non-timber forest product
PA	Protected Area
PASMP	Protected Areas Strategic Management Plan
PES	Payment for ecosystem services
PEARL	Public-Social-Private Partnerships for Ecologically-Sound Agriculture and Resilient Livelihood
PDAFF	Provincial Department of Agriculture, Forestry and Fisheries
PDoE	Provincial Department of Environment
PDoT	Provincial Department of Tourism
PDoWRM	Provincial Department of Water Resources and Meteorology
PIF	Project Identification Form
PIR	Project Implementation Report
PKNP	Phnom Kulen National Park
PMU	Project Management Unit
POPP	Programme and Operations Policies and Procedures
PPCPs	Public-private-community partnerships
PPG	Project Preparation Grant
RCP	Representative Concentration Pathway
REDD+	Reducing emissions from deforestation and forest degradation plus related activities
SOP	Standard operating procedure
SSR	Steung Siem Reap
STAP	GEF Scientific Technical Advisory Panel
TE	Terminal Evaluation
TSA	Tonle Sap Authority
TSB	Tone Sap Basin
UNCBD	United Nations Convention on Biological Diversity
UNCCD	United Nations Convention to Combat Desertification

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UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
WMC	Watershed Management Committee

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I. DEVELOPMENT CHALLENGE

Introduction

1. The Tonle Sap Basin (TSB), spanning approximately 85,790 km^2 in northwestern Cambodia, is a region of significant ecological and economic importance and the cultural heart of the country. The region is increasingly vulnerable to the impacts of climate change. Rising temperatures, shifting rainfall patterns, and the growing frequency and intensity of extreme weather events — such as droughts and floods — are severely affecting water resources, biodiversity, and agricultural productivity (see Climate Context below for more details).

2. These climate challenges are further exacerbated by the rapid degradation of forest ecosystems and upland watershed areas, and their rich biodiversity, posing a **serious threat to Cambodia's cultural and natural heritage.** As forests decline, the essential ecosystem services they provide are being compromised, leading to severe consequences for water resource sustainability, local livelihoods, and the tourism sector — a major contributor to both local and national economies.

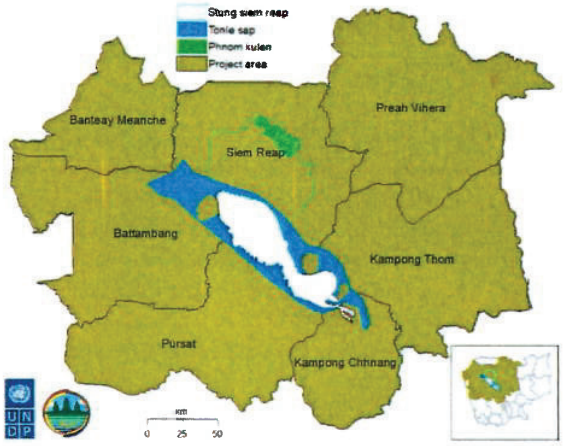


Figure 1. *Map showing the 7 provinces that form part of the TSB, as well as the Steung Siem Reap watershed (including Phnom Kulen National Park), which will be the focus of on-the- ground investments*

3. The resulting strain on natural resource-based livelihoods is driving communities toward maladaptive practices, including agricultural expansion into forested areas. This, in turn, perpetuates a negative cycle of environmental degradation within the **basin's catchments, undermining the resilience of ecosystems and communities that depend on them.**

4. Approximately 4 million people, representing 24% of the population, reside within the TSB, which spans the provinces of Siem Reap, Battambang, Pursat, Kampong Chhnang, Banteay Meanchey, and Kampong Thom, Preah Vihera (Figure 1). Two-thirds of **this population live in rural areas and rely heavily on the region's natural resources and cultural heritage to sustain their** livelihoods. Activities such as cultural and eco-tourism play a significant role in supporting both local and national economies. Additionally, 50% of the TSB population — around 2 million people — rely directly on the Tonle Sap Lake for their daily needs. The lake provides critical resources, including water for domestic use, agriculture, aquaculture, and transportation, while also regulating the local climate.

5. The Tonle Sap Basin, which consists of 11 major tributaries, features the Siem Reap/Phnom Kulen landscape — encompassing the Steung Siem Reap (SSR) watershed — **as a focal point for Cambodia's national conservation and restoration efforts. This area** has been prioritised by the Government of Cambodia due to its profound cultural and ecological significance. The SSR Watershed spans 3,619 km^2, stretching from the Phnom Kulen Mountain range in the north to the Tonle Sap Lake in the south. It is home to Angkor Wat, **a UNESCO World Heritage Site of great cultural importance and the country's premier tourism destination.** The SSR Watershed consists of three main rivers: the Puok River, the Siem Reap River, and the Rolous River. All three rivers originate from Phnom Kulen National Park (PKNP) and flow into the flooded forest area of Tonle Sap Basin, with their waters reaching Puok District, Siem Reap Municipality, and Prasat Bakong District, respectively (Figure 2). The cultural heritage of the SSR watershed extends into the upper catchment areas of Phnom Kulen National Park (PKNP), a sacred site for the Khmer people and the historical cradle of the Kingdom of Cambodia.

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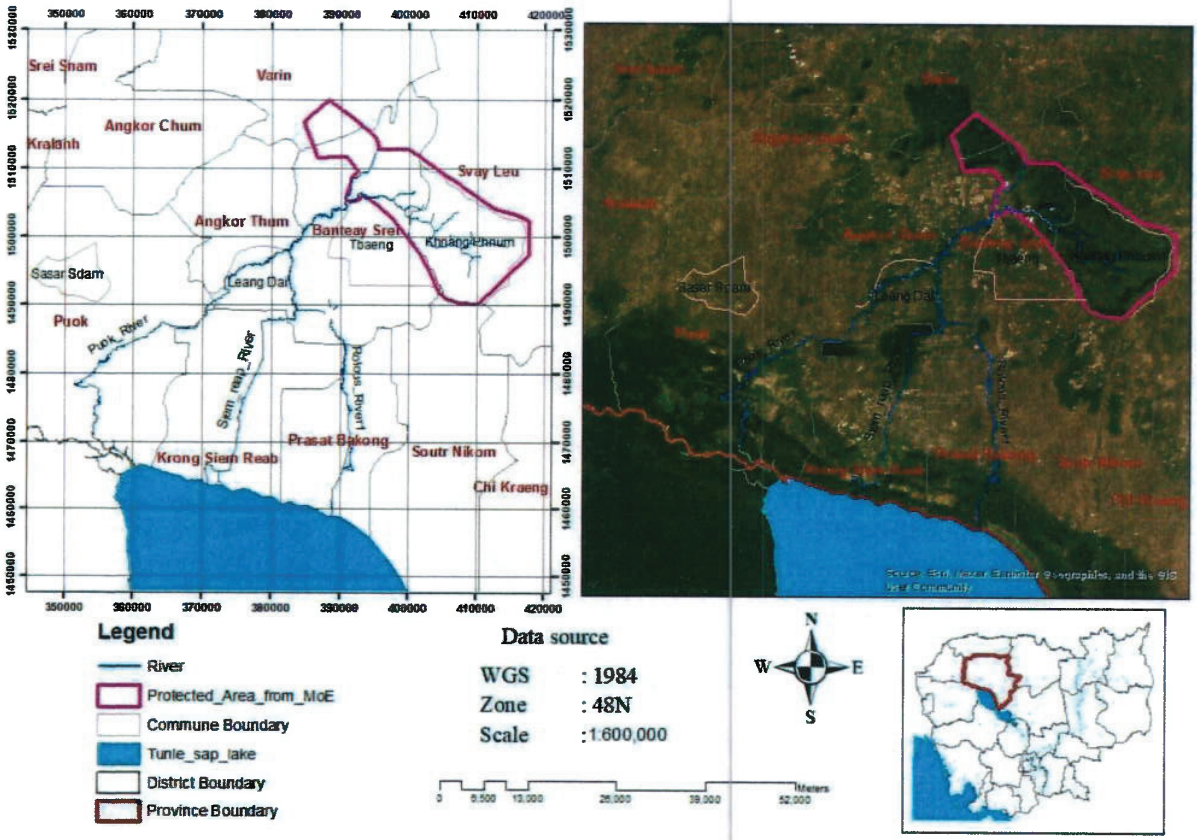


Figure 2. *The river landscape (Puok, Siem Reap, and Rolous Rivers) in Steung Siem Reap Watershed*[1]

6. With the headwaters of these three rivers 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. In addition to supporting local livelihoods, these water resources are critical to the region's tourism industry, including hotels and restaurants, which are major water consumers. The hydrodynamic forces of groundwater also help maintain the structural integrity of the Angkor Temple Complex. An assessment of land use and climate change effects on hydrology in the upper Siem Reap River and Angkor Temple Complex projected that there under the current land use and climate regime there is sufficient water to sustain the Angkor Temple Complex. However, all future climate projections (RCP 2.6, RCP 4.5 and RCP 8.5) indicate that under current land use trends, there would be insufficient water supply by mid- to end-century[2].

Socio-ecological watershed zoning

7. The socio-ecological zoning of the SSR Watershed provides insight into its hydrological profile in relation to ecological and social dynamics (Figure 3). The zones have been defined by the interactions between land and natural resources, local land use, and management practices. As shown in, the watershed's rivers originate in PKNP (Zone 6), flow through the Angkor Wat Protected Landscape, and eventually drain into Tonle Sap Lake.

[1] UNDP. 2025. Landscape Profile and Situation Analysis (Annex 21).
[2] Chim K, Tunnicliffe J, Shamseldin AY & Bun H. 2021. Assessment of land use and climate change effects on hydrology in the upper Siem Reap River and Angkor Temple Complex, Cambodia. Environmental Development, 39.

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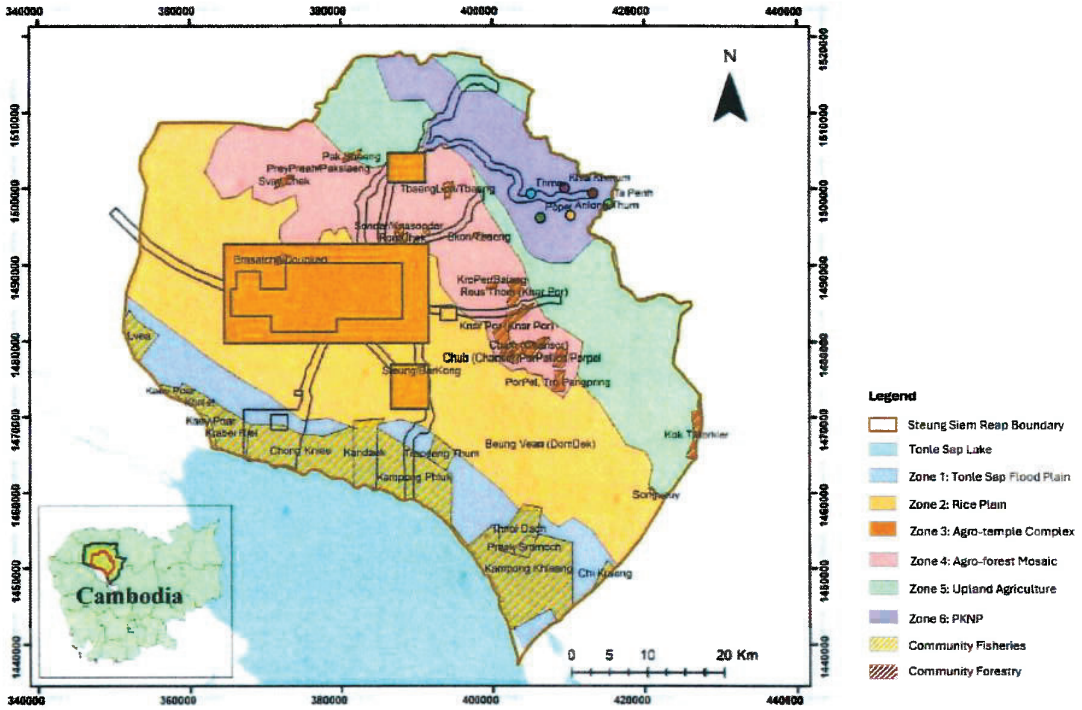


Figure 3. *Zoning of the Steung Siem Reap Watershed* (Source: COMDEKS 2025)

8. Zone 1 represents the Tonle Sap Plain, comprising grasslands, shrublands, forests, ponds, and lakes. Land use is primarily focused on fishing, managed through community fisheries and deep-water rice ponds. Zone 2 is an agricultural plain, dominated by rain-fed rice farming. Farmers with access to water storage infrastructure can engage in more intensive, irrigated commercial agriculture. Zone 3 surrounds the archaeological park of Angkor Wat, where family farming is predominant. Overall management of this zone lies with the APSARA Authority.

9. Zone 4 is an agriculture-forest mosaic that was once predominantly forested. However, extensive deforestation due to agricultural expansion, settlement construction, and illegal logging has resulted in highly fragmented forests. The primary agricultural activity is *chamkar* (non-rice cultivation), practiced by 94% of the Zone 4 population, though a small proportion still cultivates rice[3]. *Chamkar* cultivation includes orchards (such as cashew and mango), vegetable crops (such as cassava), and plantations (such as rubber or pepper). Vegetables are primarily grown for the Siem Reap market. While most crop cultivation depends on rainfall, some farmers with access to streams and springs use irrigation.



Figure 4. *Mini marketplace in Zone 4.*
Source: Google Maps Streetview

10. To supplement their agricultural incomes, Zone 4 communities also rely on other natural resources. In recent years, small-scale handicraft businesses and **shops have emerged, with some households forming "mini-marketplaces" to** serve food and beverages to tourists and sell locally made handicrafts using non-timber forest products (NTFPs). However, these activities remain limited in scale and highly dependent on tourist arrivals[4]. Landlessness is a significant challenge in Zone 4, affecting 28% of the farming population. As a result, many residents seek off-farm employment, primarily in the tourism sector[5].

[3] Community Development and Knowledge Management for the Satoyama Initiative (COMDEKS). 2025. Phase IV Country Programme Strategy: Restoring Landscapes in Steung Siem Reap Watershed Areas.
[4] UNDP. 2025. Landscape Profile and Situation Analysis (Annex 21).
[5] COMDEKS. 2025.

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11. Agricultural livelihoods in Zone 4 are challenged by water scarcity due to limited rainfall, inadequate irrigation and storage infrastructure, low soil water retention, and poor soil fertility of the arenosols[6]. Although water scarcity is the primary climate-related issue, flash flooding also poses a threat, causing damage to crops and infrastructure.

12. To protect the remaining degraded forests, community forest groups have been established under the management and technical support of the Provincial Forestry Administration (Table 1). These community forests (CFs) serve multiple functions beyond timber production and silviculture, offering potential for integration with other landscape management strategies. Community members see strong opportunities to enhance community forestry initiatives by incorporating agroforestry and ecotourism as alternative income-generating activities[7].

Table 1. *Community Forests (CFs) in SSR Watershed: Zone 4*

	Municipality/District	Commune name	Name of community forest	Area (ha)	River/Stream
1	Angkor Thum	Peak Snaeng	PreyPreah/Pakslaeng	16	SSR
		Svay Chek	Svay Chek	232	SSR
2	Banteay Srei	Khnar Sanday	Khnasondar	427	SSR
		Rumchek	Roveang Tatom	59	SSR
			Romchek	330	SSR
		Tbaeng	TbaengLich	210	SSR
			Skon	87	SSR
3	Soutr Nikom	Chan Sar	Chansorcherng	84	Rolous
			Chansortbong	94	Rolous
			Chambak Trang/Thnol	63	Rolous
			Chbar Leu	78	Rolous
			Chub	203	Rolous
			Cham	225	Rolous
			Kok Terng	271	Rolous
		Khnar Pou	Reus Thom	445	Rolous
			Knar Por	1,022	Rolous
		Popel	PorPellich	330	Rolous
			Tro Pangpring	409	Rolous
			Treal Pong	61	Rolous
			Total CFs in Zone 4	4,646 ha	

15. Zone 5 is an upland agricultural area that was completely deforested over the past decade and converted into upland cropping systems, including rice, casava, cashew, and mango. Most households (91%) are engaged in cropping activities, with forestry resources having been largely cleared. The challenges faced by farming communities in this zone are like those of Zone 4 communities. In the project target area, there is one CF in this zone: Pak Snaeng Community Forest (207 ha) in Peak Snaeng Commune within Angkor Thum District.

16. Zone 6 (PKNP) is a protected area co-managed by local communities and the Ministry of Environment through Community Protected Areas (CPAs - Table 2). **Residents who settled before the park's establishment are allowed to practice subsistence** farming, growing crops such as rice, cashew, casava and mango, while also participating in ecotourism[8].

Table 2. *Community Protected Areas (CPAs) in SSR Watershed: Zone 6*

	Municipality/District	Commune name	Name of community protected area (CPA)	Area (ha)
1	Svay Leu	Khnang Phnum	Prey Phnom Kdouch	101
			Prey Thom Anlong Thom	365
			Prey Thom Popel	798
			Chub Ta Sok	359
			Prey Phnom Mnors	92
			Total CPAs in Zone 6	1,715 ha

[6] Sandy soils with a loamy sand or coarser texture, characterized by a lack of significant soil profile development and low humus content
[7] UNDP. 2025. Landscape Profile and Situation Analysis (Annex 21).
[8] Community Development and Knowledge Management for the Satoyama Initiative (COMDEKS). 2025. Phase IV Country Programme Strategy: Restoring Landscapes in Stung Siem Reap Watershed Areas.

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17. The Tonle Sap Basin's ecological and cultural significance underscores the urgent need for sustainable management of its critical natural resources. Climate change and environmental degradation are placing immense pressure on water availability, biodiversity, and local livelihoods, threatening key economic sectors such as agriculture, tourism, and fisheries across the six socio-ecological zones. Ensuring the resilience of these sectors requires integrated, long-term strategies that prioritise ecosystem restoration, sustainable land and water management, and community-based conservation efforts.

Agriculture baseline in the target communes

18. Farmers in the target area grow a variety of crops, primarily rice, maize, and cassava, with the Soutr Nikom communes also cultivating vegetable crops. All communes are already integrating a degree of agroforestry in their production systems, evidenced by the extensive mentions of cashew and mango production, while the two communes in Varin District (Prasat and Srae Nouy) cultivate rubber in addition to mango. Farming is household-based, indicating a smallholder system that relies on rain-fed agriculture (Table 3). While the production method is not explicitly classified as intensive or extensive, the reliance on rainfall and low-input farming suggests an extensive system. Most farmers lack full irrigation access, with only a small percentage using irrigation on a limited scale. Crop diversification is practiced at a basic level, as multiple communes cultivate a mix of staple and cash crops. Overall, the farming system remains largely traditional, with no clear indication of systematic regenerative agricultural practices.

19. The Cambodian Government actively promotes climate-resilient agricultural (CRA) practices and technologies to enhance the sustainability and resilience of the agricultural sector. Practices such as cover cropping and mulching help reduce runoff and erosion while increasing water infiltration, thereby retaining soil moisture and preventing nutrient loss. Crop diversification, including crop rotation and intercropping, is widely encouraged to improve biodiversity and reduce pest outbreaks. To support the adoption of these sustainable farming methods, the Cambodia Conservation Agriculture and Sustainable Intensification Consortium (CASIC) was established.

20. In addition to CRA practices, the government has introduced various technologies to help farmers adapt to the changing climate. These include drought-resistant crop varieties, efficient irrigation systems, and agroforestry techniques. Drought-resistant crops enable farmers to maintain good harvests even during dry seasons, while improved irrigation methods optimise water use and reduce reliance on rainfall. Agroforestry not only enhances climate resilience but also provides farmers with diversified income sources.

Table 3. Existing crop production in the target communes

No	District	Commune name	Major crop[9]	Agroforestry species
1	Angkor Thum	Chob Ta Trav	Rice, maize, cassava	Cashew, mango
		Leang Dai	Rice, maize, cassava	Cashew, mango
		Peak Snaeng	Rice, maize, cassava	Cashew, mango
		Svay Chek	Rice, maize, cassava	Cashew, mango
2	Banteay Srei	Khnar Sanday	Rice	Cashew, mango
		Khun Ream	Rice	Cashew, mango
		Preah Dak	Rice	Cashew, mango
		Rumchek	Rice	Cashew, mango
		Run Ta Aek	Rice	Cashew, mango
		Tbaeng	Rice	Cashew, mango
3	Soutr Nikom	Chan Sar	Rice, vegetables	Mango
		Khnar Pou	Rice, vegetables	Mango
		Popel	Rice, vegetables	Mango
		Ta Yaek	Rice, vegetables	Mango
4	Svay Leu	Khnang Phnum	Cassava	Cashew, fruit tree
5	Varin	Prasat	Rice, cassava	Cashew, rubber
		Srae Nouy	Rice, cassava	Cashew, rubber

[9] Rice, maize, and cassava are all grown in the wet season, generally sown from April to June. In some areas, dry season rice is sowed in November-December, relying on irrigation from rivers and canals.

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21. The promotion of climate resilient crops in Cambodia is partially regulated by a framework governing the use of genetically modified organisms (GMOs) through its Law on Biosafety, adopted in 2007, and the subsequent Sub-Decree No. 58 issued in 2010. These regulations aim to prevent adverse impacts on biodiversity, the environment, and human health by overseeing the import, export, and transit of living modified organisms (LMOs). While the law provides mechanisms for the control and management of GMOs, the Cambodian government has not officially banned their use. In 2017, Hean Vanhan, an undersecretary of state at the Ministry of Agriculture, stated that the government had neither approved nor prohibited GM seeds, citing a lack of definitive evidence regarding their potential harm. The government's stance remains cautious, focusing on preventing potential negative impacts while acknowledging the ongoing debate over GMO safety and benefits.

Capacity baseline for climate change adaptation

22. As part of project preparation, a climate change adaptation (CCA) capacity assessment was conducted targeting Siem Reap provincial leadership — including both administrative and technical departments — as well as community capacity in both upstream and downstream communities of the SSR Watershed. The assessment considered four related themes namely: i) capacity for policy and legal framework for CCA; ii) capacity for planning, implementation, monitoring and evaluation CCA interventions; iii) capacity for climate change knowledge management; and iv) capacity for community engagement (Figure 5).

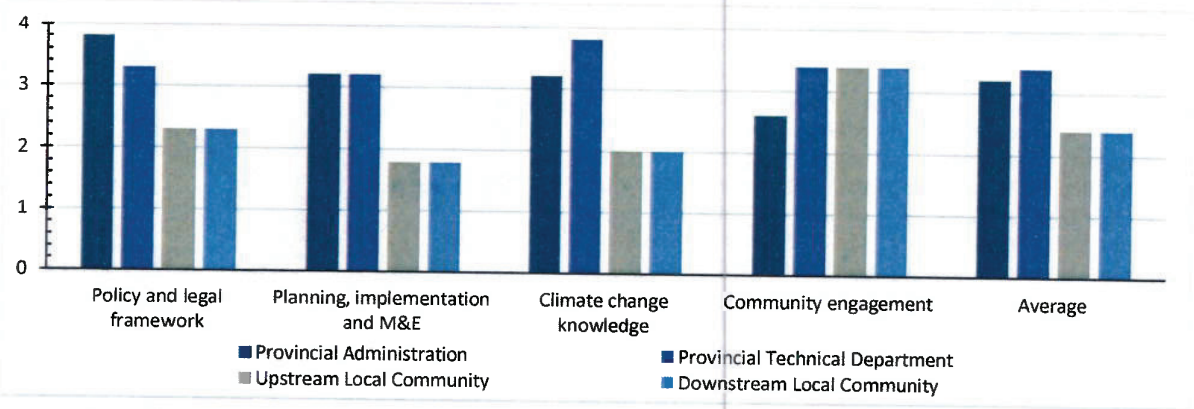


Figure 5. *Climate Change Adaptation capacity assessment scores (rated on a scale of 0–5)*[10]

23. The provincial administrative departments showed the highest capacity in terms of policy and legal frameworks, scoring lowest on the cross-sectoral coordination indicator, which suggested only partial capacity. Technical departments scored higher on coordination, but lower on other policy indicators. This suggests that while different sectors coordinate on a technical level, they are not backed up by adequate policies to mainstream such coordination. Community engagement with and understanding of CCA policies was generally low.

24. Capacity for planning, implementation, monitoring and evaluation CCA interventions was generally lower than for policy frameworks across all groups. The administrative and technical departments scored the same overall, but with administrative staff scoring higher on evidence-based planning, and technical departments scoring higher on innovative finance. Once again, community capacity was generally lower, with notable absence of capacity for private sector engagement and innovative finance.

25. Knowledge of climate change, and use of that knowledge, was strongest among the provincial technical departments where widespread capacity was observed for four of the 5 indicators – with the weakest aspect being the generation of new knowledge. This weakness was even more pronounced among local communities.

26. Finally, provincial administrative departments showed the lowest capacity for community engagement, which was the only category in for which the department scored below three. This suggests significant gaps in the integration of community views in the administrative processes – particularly in terms of community mobilisation and addressing the needs of the most vulnerable groups. Consideration of the needs of vulnerable groups was consistently the lowest score across all groups.

[10] 1 = No evidence of capacity; 2 = Anecdotal/slight evidence of capacity; 3 = Partially developed capacity; 4 = Widespread, but not comprehensive capacity; 5 = Fully developed capacity

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Climate Change Context

27. Cambodia has a tropical monsoon climate with two distinct seasons: a wet season from May to October, driven by the southwest monsoon, and a dry season from November to April, influenced by the northeast monsoon. Temperatures are generally warm year-round, ranging from 21°C to 35°C. The country experiences high humidity and significant rainfall, particularly from June to September. Extreme weather events such as floods and droughts are common, posing challenges for agriculture and water resources.

28. Cambodia is also highly vulnerable to climate change, with significant impacts on natural resources and communities across the country. Water resources, particularly those in the Tonle Sap Basin, are increasingly threatened by shifting rainfall patterns, changes in seasonal cycles, and more intense rainfall. These climatic shifts are impacting both the flow of surface water, and the recharge of groundwater aquifers.

Climate Vulnerability

29. **Cambodia's climate vulnerability has been assessed** under the Cambodia National Vulnerability Index, which was conducted following IPCC methodology and defines vulnerability as a function of exposure, sensitivity, and adaptive capacity. This assessment developed a national Composite Vulnerability Index (CVI), integrating environmental exposure (including the frequency of occurrence of climate extreme events), socioeconomic sensitivity, and adaptive capacity. The CVI **indicates that 34.8% of Cambodia's 1,629 communes fall into either the 'High' or 'Quite High' vulnerability categories, with** the most at-risk areas concentrated in the northern regions, particularly within the Tonle Sap Basin (TSB)[11]. This includes the northern highland areas of Steung Siem Reap Watershed (**Error! Reference source not found.**), where high exposure to flooding results in some of the highest flood vulnerability scores in the country.

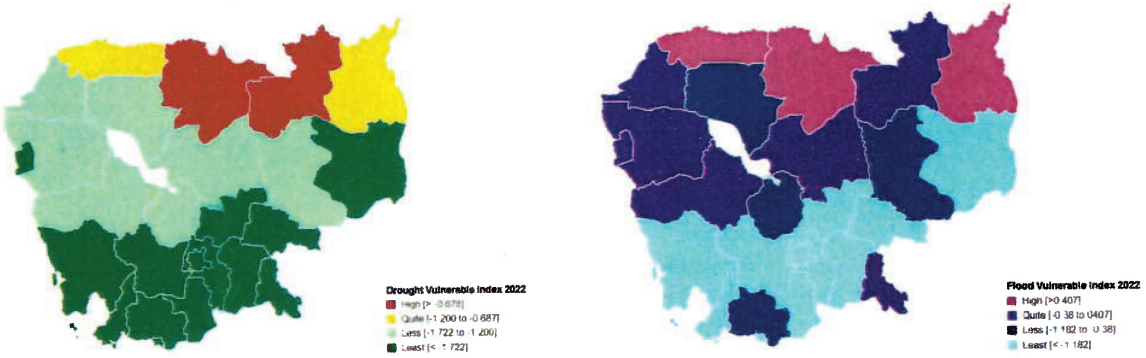


Figure 6. Spatial distributions of climate change vulnerability in the TSB at the commune level. Top right – composite vulnerability; bottom left – drought vulnerability; bottom right – flood vulnerability (Source: National Vulnerability Index)

30. A more detailed assessment using the same methodology but focussing directly on **the project's target area** — highland communes within the Steung Siem Reap (SSR) Watershed in Siem Reap Province — further highlights the extent of the vulnerability (See Annex 23 for more detail). As illustrated in Figure 7**Error! Reference source not found.**, three target communes (Peak **Snaeng, Prasat, and Srae Nouy) are classified as 'High' on the CVI scale, while five others (Chob Ta Trav, Svay Chek, Rumchek, Run Ta Aek, and Tbaeng) fall into the 'Quite High' category**[12].

[11] National Vulnerability Index
[12] Sopheak, T. 2025. Assessment Report: Climate Change Adaptation and Nature-Based Solutions.

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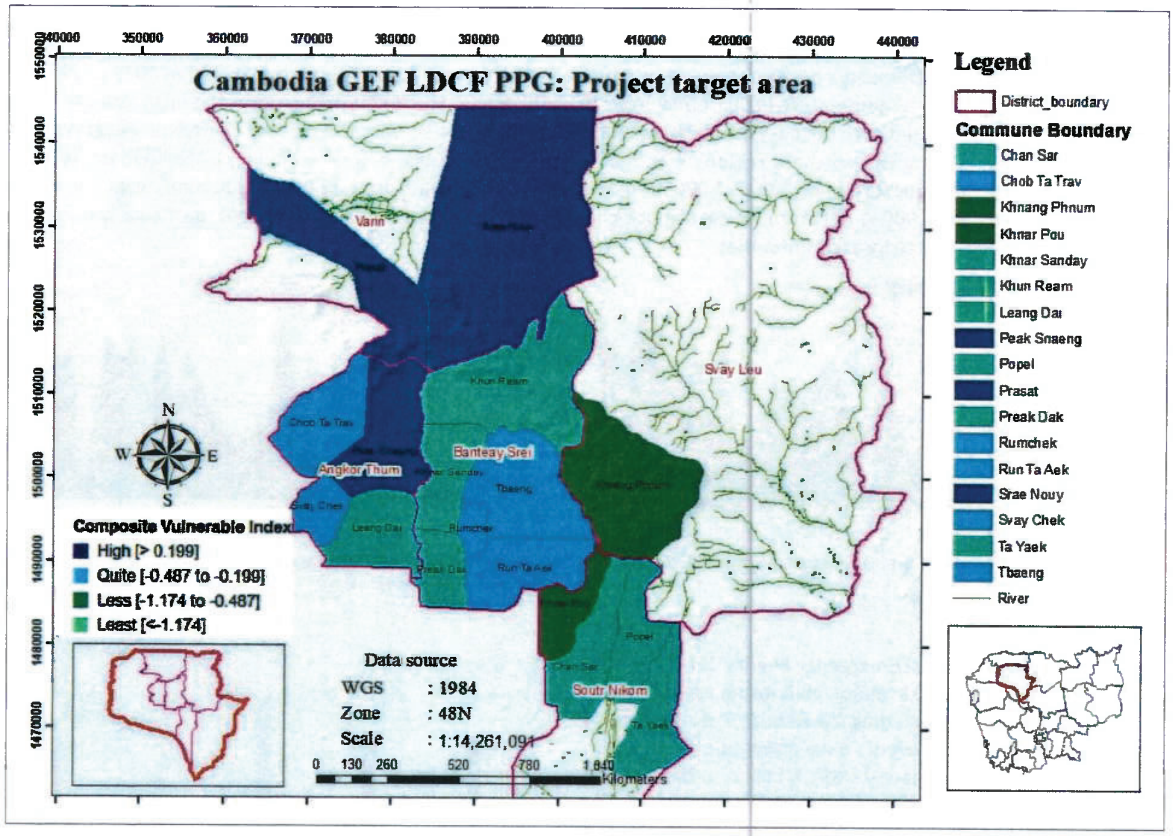


Figure 7. Spatial distribution of climate change vulnerability for the communes in the project target area[13]

31. In addition to high exposure to climate hazards, Cambodia has limited capacity to cope with climate change. The country ranks 149th out of 181 nations in the 2021 ND-GAIN Index, which assess climate vulnerability and readiness. This ranking underscores **the urgent need to enhance resilience and adaptive capacity to safeguard the country's economic growth and development.**

32. Among the most vulnerable groups are smallholder farmers and rural communities who rely on natural resources for their livelihoods, including forests, agriculture, and resources (fish, fuel wood and timber) from the Tonle Sap and its floodplain. Low adaptive capacity is further exacerbated by high poverty rates — according to the Ministry of Planning ~1.3 million people (9% of the total population) in the TSB live below the poverty line. Many of these households are also land-poor, owning less than a hectare **of agricultural land. Women are particularly vulnerable from this perspective as they own only 10% of the country's** agricultural land. The increasing frequency and intensity of climate hazards threaten the livelihoods of these communities, with **far-reaching implications for Cambodia's economic stability, food security, and social cohesion. The disruptions caused by the** Covid-19 pandemic — particularly to agricultural supply chains and market demand — have further highlighted the socioeconomic vulnerabilities of Cambodian farmers, especially economically disadvantaged groups, women, and marginalised communities[14]. Further discussion on the drivers of vulnerability is provided below.

13 Sopheak, T. 2025. Assessment Report: Climate Change Adaptation and Nature-Based Solutions.
14 MAFF, CARD and FAO, 2020.

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Climate Trends

33. The country has already experienced a notable increase in average annual temperature, rising from 26.7°C in 1979 to 27.7°C in 2019 (Figure 9. Average annual temperature in Cambodia from 1979–2019). Concurrently, an increasing trend in average annual precipitation has been observed over the past three decades (1981–2021; Figure 9), with the highest rainfall increases recorded in the southwest, followed by the northern regions[15]. Spatial variations in average annual rainfall are also evident, with the coastal zone receiving the highest rainfall (3,000–4,000 mm), followed by the upland areas (2,000–2,200 mm), while the central lowlands receive the least (1,000–1,400 mm). These climatic changes have exacerbated climate hazards, particularly floods and droughts, posing severe risks to local communities.

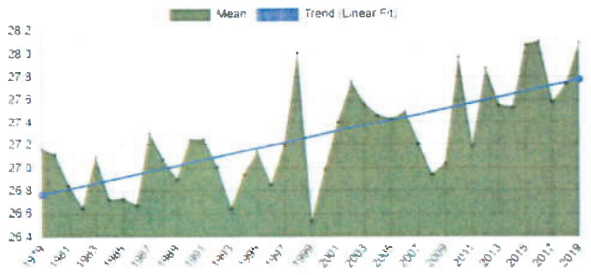


Figure 9. *Average annual temperature in Cambodia from 1979–2019*
(Source: ECMWF ERA5 data – Earthmap.org)

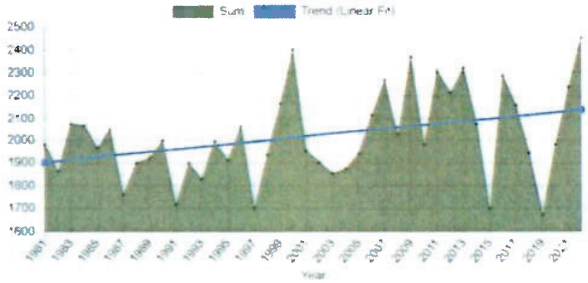


Figure 9. *Average annual precipitation in Cambodia from 1981–2021*
(Source: CHIRPS data – Earthmap.org)

34. According to the International Emergency Events Database (EM-DAT), Cambodia recorded 33 major climate-related disasters between 2000 and 2024, including 20 floods, 5 storms, and 4 droughts (Figure 10). These events have affected over 8 million people and caused approximately US$1.8 billion in damages to agriculture and infrastructure between 2005 and 2019[16]. For instance, flash floods and riverine flooding in 2021 impacted approximately 28,450 households (~122,000 people[17]) and damaged 24,862 ha of agriculture land in Banteay Meanchey, Battambang, Siem Reap, Kampong Speu and Ratanak Kiri provinces. Of the 33 disasters, 21 occurred in provinces that encompass the TSB, including 75% of droughts, 65% of floods, and 80% of storms.

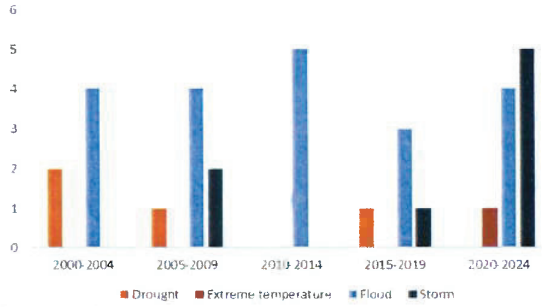


Figure 10. *Disaster events in Cambodia, EM-DAT 2022*

Future Climate Projections

35. Increasing temperature trends are expected to continue, with projections under the moderate Shared Socioeconomic Pathway (SSP) 2-4.5 scenario predicting a +1.5°C change in mean annual temperature mid-century (2040-2059) and +2.2°C change by end-century (2080-2100). Under the worst-case scenario (SSP5-8.5), the rate of increase in average annual temperature across the whole of Cambodia will accelerate through the mid- to late-century, with a +4.1°C change by the 2080–2100 period (Figure 11). Projections also show that Cambodia will be exposed to much higher heat risks nationally by mid-century, especially considering regional and seasonal variations. According to the SSP3-7.0 scenario, the average

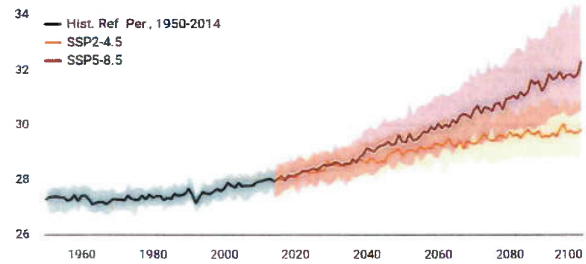


Figure 11. *Historical and projected average annual temperature*
(Source: CCKP)

[15] Cambodia's Third National Communication to the UNFCCC (TNC).
[16] CamDI, NCDM, 2020.
[17] Assuming an average of 4.3 people per household.

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annual number of hot days (T-max > 35°C) increase nationally from the 1995–2014 reference period of 49 hot days to 97 days over 2020–2039 and to 150 days by mid-century[18].

36. The positive rainfall trend is also expected to continue, with RCP4.5 projections showing a +11% change in average annual rainfall in the Siem Reap Province for the 2041–2070 period (Figure 12). This increases to +17% under RCP8.5. 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. **For example, Cambodia's future** precipitation intensities, measured by average largest 5-day cumulative anomalies, generally increase the most during the end of the wet monsoon season in the northern provinces and generally decrease the most during the dry season months in the southern provinces[19]. As a result, by mid-century, Cambodia is likely to experience more frequent extreme precipitation events. For the projected period of 2035–2064, the largest 5-day precipitation amounts associated with 100-year historical return periods will be nearly two times more likely to occur in the western highland provinces (Figure 13).

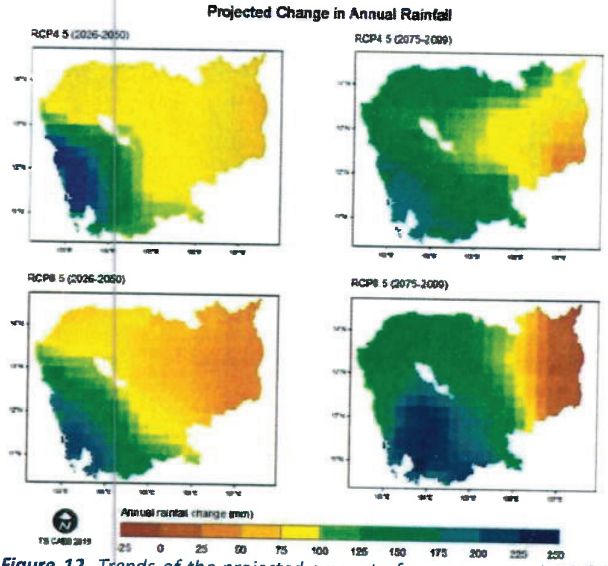


Figure 12. *Trends of the projected amount of average annual rainfall across Cambodia up to 2100 based on two different climate change scenarios: RCP4.5 and RCP8.5.* (Source: TNC 2022)

37. These projected changes in future precipitation intensities show a general pattern of drier dry seasons and wetter wet seasons, with notable regional variation. The largest increases typically occur at the end of the wet monsoon in the northern provinces, while the greatest decreases are seen during the dry season in the south, with the most extreme trends in the west. For example, under SSP3-7.0 by mid-century, Kep sees a **decrease of −18.16 mm in March (dry season) and an increase** of 19.83 mm in June (early wet season). In Koh Kong (southwest **coast and highlands), March intensities decrease by about −10** mm, increase by 17.26 mm in July, and rise by 31.65 mm in October—the highest nationally. In the northeast, Ratanak Kiri records a 21.35 mm increase in October (end of the wet season).

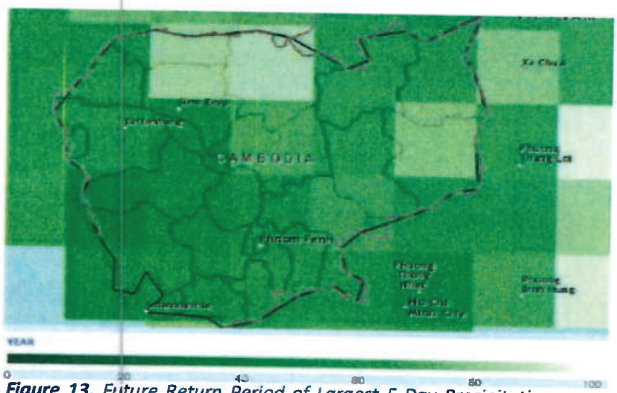


Figure 13. *Future Return Period of Largest 5-Day Precipitation, 100-Year Event (SSP3-7.0 2035–2064)* Source: Climate Risk Country Profile

38. Consequently, as a result of the expected shift in the timing and intensity of rainfall patterns and seasons, the hydrology of **Cambodia's major rivers and their tributaries will** change — also affecting ground water aquifers. Intense rainfall during the wet season will increase mean annual runoff in Siem Reap by 25% under RCP4.5 (2041–2070), resulting in increased flood risk, while the decreased dry season rainfall will result in prolonged dry spells.[20] More frequently occurring extreme precipitation events underscore future health risks related to flood impacts, agricultural yields, disease ranges, and critical infrastructure, including for water, sanitation, and hygiene[21].

[18] World Bank CCKP
[19] World Bank 2024. Cambodia Climate Risk Country Profile
[20] ClimateInformation.org
[21] World Bank 2024. Cambodia Climate Risk Country Profile

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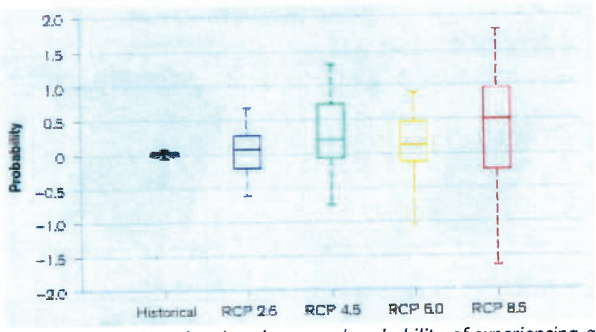


Figure 14. *Boxplots showing the annual probability of experiencing a 'severe drought' in Cambodia (−2 SPEI Index) in 2080–2099 under four emissions pathways*

39. At present Cambodia faces an annual median probability of severe meteorological drought of around 4%, as defined by a standardized precipitation evaporation index (SPEI) of less than −2. While uncertainty remains high, all emissions pathways indicate an increase in median annual drought probability from 4% to 5–9%.[22]

Climate projections indicate that such extreme events will become more frequent and severe, with increased rainfall intensity, higher runoff, and prolonged dry spells[23]. Additionally, increases in wet-season rainfall are expected to expand open water areas 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%[24].

Impacts on water resources and agriculture

40. 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. These decreases are likely to be attributed to a change in the seasonal distribution of the rainfall, with drier and longer dry seasons, and lower precipitation occurring in the Lower Mekong Basin in the future climate projections.[25] 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 4 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[26], which highlights that lowland and irrigated rice, soybean and cassava, are all highly vulnerable to increasing temperatures (particularly minimum nighttime temperatures which impact optimal growth conditions for rice), and flooding, while soybean is also highly vulnerable to decreases in water availability during the growing season (

41. Table **5**).

Table 4: *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 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.

[22] Naumann, G., Alfieri, L., Wyser, K., Mentaschi, L., Betts, R. A., Carrao, H., . . . Feyen, L. (2018). Global Changes in Drought Conditions Under Different Levels of Warming. Geophysical Research Letters, 45(7), 3285–3296

[23] World Bank 2024. Cambodia Climate Risk Country Profile

[24] Third National Communication, 2022.

[25] 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.

[26] ICEM (2013).

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Table 5. Main threats and vulnerability for crops in Kampong Thom Province (Source: ICEM 2013, in the NC3)

Vulnerable Crops	Threats	Impact Summary	Vulnerability
Lowland Rainfed Rice	Increased Temperature	More than 75% of the maximum daily temperature is above the optimum zone for lowland rainfed rice.	High
Irrigated Rice		More than 50% of the maximum daily temperature greater than optimum temperature for irrigated rice.	
Soybean		Extreme maximum temperature (<25% of frequency) higher than 35°C during soybean crop High growth.	
Lowland Rainfed Rice	Flooding	Flood prone area around the Mekong and Tonle Sap Lake in the southwestern part of the province. In October, precipitation is above 500 mm per month, and total precipitation in the wet season is above 1,700 mm.	High
Cassava			
Soybean			
Soybean	Decrease in Water Availability	The decrease in water availability will be between 10% and 4% during the crop growth.	High

Root causes and drivers of vulnerability

42. Cambodia is one of the fastest-growing economies in Southeast Asia, with an average Gross Domestic Product (GDP) growth rate of 7.6% from 1995 to 2019, elevating the country to lower middle-income status in 2015. This growth has been primarily driven by agriculture, industry, and tourism. The government aims to sustain this momentum, targeting upper-middle income status by 2030 and high-income status by 2050. However, progress was disrupted by the Covid-19 pandemic, which reduced GDP growth to 3.1% in 2020 and 3% in 2021. While the economy rebounded to 5.5% growth in 2022, supported by government's Covid recovery policies, significant challenges remain.

43. One of the key challenges is the impact of climate change on future economic growth. Projections show that GDP growth will decrease by 2.5% by 2030 and 9.8% by 2050, assuming global temperature increase is limited to below 2°C by 2100[27]. The economy's climate and social vulnerability is largely due to its heavy dependence on the goods and services provided by healthy ecosystems. Given this economic dependence on natural resources, much of the projected loss in GDP growth is expected to result from declining natural resource productivity from both anthropogenic pressures and climate change, posing risks to the country's development goals, natural resource-based livelihoods, and the well-being of its population[28].

44. Climate-driven hazards compromise natural resource productivity in Cambodia in several other ways. Prolonged droughts and flooding accelerate soil and ecosystem degradation by increasing erosion and reducing soil moisture[29]. Climate-induced soil and ecosystem degradation is further compounded by unsustainable land management practices, including illegal logging and agricultural expansion. Declining crop productivity — driven by a combination of climate impacts and non-regenerative farming practices — forces many farmers to adopt maladaptive strategies. One common response is the expansion of small-plot agriculture into previously forested areas, as farmers seek fertile soils to offset productivity losses on degraded croplands. However, this conversion of native forests into farmland perpetuates a destructive cycle of deforestation and unsustainable crop production, further degrading ecosystems and reducing their resilience to climate change.

27 MEF and NCSD, 2018.
28 Third National Communication, 2022.
29 It is projected that forest areas, particularly in the northeast and southwest, will be exposed to longer dry periods.

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45. Global Forest Watch (2022) identified Cambodia as having **one of the world's highest deforestation rates, with a 30%** loss of forest cover between 2006 and 2022, a trend reflected in the substantial forest loss and fragmentation observed in the TSB during this period (Figure 15). The forest cover change analysis shows that 1,707,644 ha were lost over the period[30]. This deforestation undermines **Cambodia's carbon mitigation efforts, with the forest and** land use sector being the largest contributor to the **country's GHG emissions (80% in 2016**[31]). The vulnerable northern upland areas of SSR, including PKNP, are experiencing rapid ecosystem degradation. Forest cover loss in this region has occurred at a rate of 1.22% annually over the past three decades, driven primarily by the rapid expansion of cash crop farming and illegal logging. This rate is higher than the national average deforestation rate of 0.8%–1%.

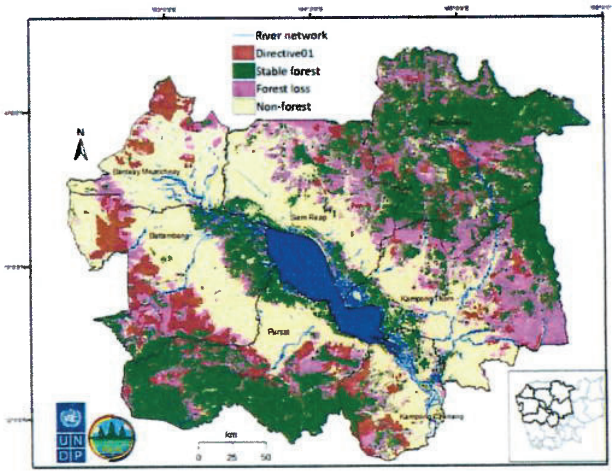


Figure 15. *Forest Cover Change 2006–2022*

46. The mosaic upland areas of SSR — consisting of agricultural lands and forest ecosystems — plays a critical role in regulating hydrological cycles, controlling surface runoff and recharging groundwater aquifers. However, as forest ecosystems degrade and unsustainable crop production expands, the rate of surface runoff increases, reducing infiltration and aquifer recharge. This leads to soil erosion, nutrient loss, and decreased water retention in soils, ultimately impairing water resources and soil health. These disruptions to critical ecosystem services weaken ecological and agricultural productivity in the catchment, perpetuating a negative cycle of degradation and loss of critical ecosystem services.

47. The combined challenges of climate change and ecosystem degradation have cross-cutting impacts, increasing the vulnerability of both the economy and population residing within the TSB[32]. Key sectors at risk include water resources, agriculture, forestry, fisheries, and tourism[33], which together support the rural livelihoods of approximately 2.6 million people in the basin — two-thirds of the total population residing in the TSB. These communities depend on natural resources such as water resources, forest products (both timber- and non-timber), fisheries, and fertile soils for crop production.

48. **The TSB is a the key agroecological zone in Cambodia, contributing approximately 12% of the country's annual rice production,** and supporting crops such as corn, cassava, soybeans, and fruit and nut plantations such as banana, mango, and cashew. However, climate change and environmental degradation are disrupting water regimes and soil productivity, threatening agricultural output and food security. A study by Peng et al., 2004 indicates that a 1°C rise in average temperature could reduce annual rice crop yields by 10%, making farming increasingly unprofitable. Additionally, a shorter wet season with more intense rainfall is altering water availability, leading to prolonged dry seasons and flooding. These shifts disrupt traditional cropping practices, further undermining agricultural resilience[34].

49. Many economically disadvantages and climate-vulnerable communities in the TSB rely on agriculture for their livelihoods and food security. However, their dependence on rain-fed farming makes them highly susceptible to droughts, while soil and ecosystem degradation increase their exposure to droughts as well as floods and storms. Limited access to modern irrigation infrastructure, along with insufficient technical knowledge of conservation agriculture, alternative cropping strategies, and agroforestry constrains their ability to adopt resilience-enhancing agricultural practices. These barriers to adaptation are further compounded by lack of access to finance and technology.

50. The degradation of water resources affects not only land-based livelihoods but also downstream communities that depend on **the Tonle Sap Lake. Although the majority (53.5%) of the lake's water originates from the Mekong** River, a significant amount (~34%) originates from the surrounding watersheds of the TSB, with the remaining 12.5% derived directly from precipitation over the lake itself[35]. The loss of critical regulating services in the upper catchments will have far-reaching consequences for the

[30] UNDP, 2023.
[31] Biennial Update Report of Cambodia, 2020.
[32] MoE and NCSD, 2021
[33] Third National Communication. 2022.
[34] Third National Communication. 2022.
[35] Chantha, O. et al. 2019. Assessing Climate Change Impacts on River Flows in the Tonle Sap Lake Basin, Cambodia. Water, 11(3), 618. doi:10.3390/w11030618

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2 million people who rely on the lake for their livelihoods. This includes the loss of valuable fishing grounds, which support an average annual fish harvest of approximately 300,000 tonnes.

51. Due to the concentration of cultural and natural heritage sites, the economic contribution of tourism in Cambodia is disproportionately concentrated in Siem Reap Province, which alone accounted for almost a quarter of 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 eco-tourism and activities related to the Angkor Temple Complex. Though the Covid-19 pandemic causes a sharp decline in tourism from 2020 to 2022, the sector began recovering in mid-2022 and is expected to continue growing, reinforcing its importance to the local economy[36].

52. Tourism in TSB is closely tied to water resources, with a reliable supply essential for sustainable tourism. However, tourism both impacts and is vulnerable to changes in the hydrological cycle. High water demand, especially during peak seasons, depletes groundwater and surface reserves, while tourism-generated waste degrades water quality. Unsustainable infrastructure development — such as hotels, resorts and restaurants — **further harms ecosystems, reducing the area's natural appeal and** increasing water scarcity in dry seasons and flood risk in wet seasons.

53. The SSR Watershed faces a critical water-**related vulnerability that threatens Cambodia's tourism revenue. Angkor Wat's** longevity is intrinsically tied to the natural hydrological cycle[37]. The temple foundations depend on a delicate balance of groundwater levels, and seasonal fluctuations in the water table affects the structural integrity of sandstone blocks, leading to potential instability and subsidence. Reduced water availability due to climate change and excessive groundwater abstraction can cause soil drying and contraction, weakening temple foundations and increasing structural stress. These threats are compounded by deforestation and land use changes in the upstream watershed, which are altering water flow patterns, further disrupting the hydrological balance. Therefore, protecting the hydrological balance is essential for preserving both the site and the tourism sector.

54. There are approximately 24 different indigenous peoples[38] in Cambodia (known as Khmer Leu) distributed across 22 provinces and constituting 2-3% of the national population. These groups include eight registered ethnic minority groups[39], including the Kuoy people who are present in the Varin district with 177 families, totalling 599 persons. Efforts have been made to form an indigenous community within this district, specifically in the villages of Srenoy, Sre Samuth, Lvea, and Kork Wat in the Sre Noy commune. These villages have applied for community membership to preserve their traditions, culture, and beliefs inherited from their ancestors. This initiative reflects a broader push for cultural preservation among indigenous groups in Cambodia, particularly in areas like Siem Reap where historical and cultural landmarks are prevalent. Indigenous peoples livelihoods are strongly linked to their land use systems and access to forest resources; these groups are engaged in crop rotation and animal husbandry, and in the forest harvest rattan and vines, cardamom and honey. While the government of Cambodia has recognised the rights of Indigenous Peoples in law, the implementation and practical support for cultural preservation and sustainable development are still limited. There's an ongoing call for a national action plan to better serve these communities.

Summary of climate impacts and vulnerabilities.

55. The table below provides a summary of the major climate change threats facing Cambodia, outlining their associated impacts, the most vulnerable populations and systems, and key strategies to reduce vulnerability. It is based on current climate trends, future projections, and evidence from national vulnerability assessments and sectoral studies, as presented above. The table highlights how rising temperatures, changes in rainfall patterns, and the increasing frequency of extreme weather events affect critical sectors such as agriculture, water resources, and ecosystems. It also identifies the communities most at risk—particularly smallholder farmers, women, and those in ecologically sensitive or economically disadvantaged areas—and presents a range of non-infrastructure adaptation measures, including climate-resilient agriculture, ecosystem-based approaches, and enhanced climate information services.

[36] Trading Economics, 2022.
[37] Chim, K. et al. 2019 and Jacobson, C. et al. 2022.
[38] "Indigenous Peoples" in Cambodia are defined in the National Policy on the Development of Indigenous Peoples (NPDIP; 2009) as groups living in the Kingdom of Cambodia who express their ethnic, social, cultural, and economic unity, practice their traditional way of life, and cultivate the land they occupy according to customary rules of collective land use. This definition emphasizes self-identification, cultural distinctiveness, and a historical connection to specific territories, aligning with the broader concept of indigenous identity while tailored to Cambodia's context.
[39] Bunong (~50,000 people); Tumpoun (~30,000 people); Kuoy (~35,700 people); Jarai (~25,000 people); Kreung (~20,000 people); Brao (~15,000 people); Stieng (~10,000 people); Kavet (~10,000 people) - Ministry of Rural Development (MRD) 2024

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Table 6. Summary table of projected climate change, the impacts of change, vulnerabilities and potential adaptation strategies.

Climate Change	Impacts	Vulnerabilities	Adaptation Strategies
Rising temperatures (up to +4.1°C by 2100 under SSP5-8.5)	• Reduced crop yields (e.g. 10% rice yield loss per +1°C in minimum temperature) • Increased pests and disease outbreaks	• Smallholder farmers • Lowland and irrigated rice crops • Crops sensitive to temperature (soybean, cassava, rice) • Economically disadvantaged people • Land-poor households • Women who face disproportionate challenges due to limited land ownership (own only 10% of agricultural land), restricted access to agricultural inputs, financial services, and climate information.	• Introduce climate-resilient and heat-tolerant crop varieties; improve access to climate information and training for farmers, especially women. • Promote climate-smart agriculture • Expand access to seasonal forecasts and early warning systems
Increased frequency of hot days (150+ days/year by mid-century)	• Heat stress on people and crops • Altered growing conditions		
More intense and erratic rainfall (+17% in Siem Reap under RCP8.5)	• Increased flooding risk • Increased runoff • Damage to crops and livelihoods	• Tonle Sap Basin • Flood-prone areas • Economically disadvantaged communities	• Promote ecosystem-based adaptation (e.g. wetland and forest protection) • Support community-based disaster preparedness
Drier and longer dry seasons	• Water scarcity • Decreased river flows (e.g., 33–78% reduction in Siem Reap River) • Drought-related crop failures	• Farmers relying on rain-fed agriculture • Groundwater-dependent communities	• Promote diversified livelihoods • Develop water-saving agricultural practices • Strengthen land-use planning
Shift in seasonal patterns (delayed wet season, shorter growing windows)	• Reduced planting predictability • Mismatch between crop cycles and rainfall	• Rice farming systems • Subsistence farmers with limited inputs	• Adjust cropping calendars • Strengthen extension services for climate-adapted planning • Promote agroecological practices
Higher probability of extreme events (floods, droughts, storms)	• Cropland destruction • Reduced crop productivity • Food insecurity • Loss of physical assets • Economic disruption (US$1.8 billion in damages 2005–2019)	• 35% of communes classified as high/very high vulnerability • Upper watershed communes	• Strengthen early warning systems • Support local climate risk assessments and preparedness plans
Changing ecosystem dynamics (e.g., Tonle Sap floodplain)	• Loss of seasonally flooded and rain-fed habitats • Fisheries and biodiversity impacts	• Communities relying on forest/fisheries resources • Women in informal natural resource sectors	• Protect critical ecosystems • Integrate traditional knowledge into adaptation planning • Enhance women's participation in climate action

Baseline in the absence of the project

56. Without urgent intervention and long-term investment, the degradation of both natural and agroecological systems in the TSB — particularly in the Siem Reap/Phnom Kulen landscape, where deforestation rates are highest — will persist. As a result, the loss of regulating ecosystem services will impact water availability and soil health. These environmental changes will, in turn, affect the local economy, leading to a decline in agriculture and other natural resource-based livelihoods, as well as a potential downturn in tourism if cultural heritage is lost or water supply become restricted.

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Preferred Approach

57. A systematic, integrated approach to watershed management is required to address the climate vulnerability and environmental degradation in Cambodia's Tonle Sap Basin (TSB), while safeguarding its natural and cultural heritage. This approach should be systems-based, incorporating three key pillars for sustainable investment in Cambodia, namely governance, finance, and people (**Error! Reference source not found.**). W hen underpinned by a foundation of knowledge and learning, these pillars create an enabling environment for lasting and scalable impact.

58. Integrated water resource and flood risk management must account for spatial interlinkages and dependencies between land use, ecosystem health, and climate vulnerability. Protecting and restoring important ecosystems will enhance the provision of ecosystem goods and services, reducing susceptibility to droughts and floods, while strengthening community resilience. Sustainable landscape management across the TSB should include the conservation and active rehabilitation of degraded ecosystems to restore critical ecosystem services. This requires collaboration with government, the private sector, and local communities to address degradation drivers by incentivising sustainable practices while maintaining the livelihoods and culture of climate-vulnerable communities.

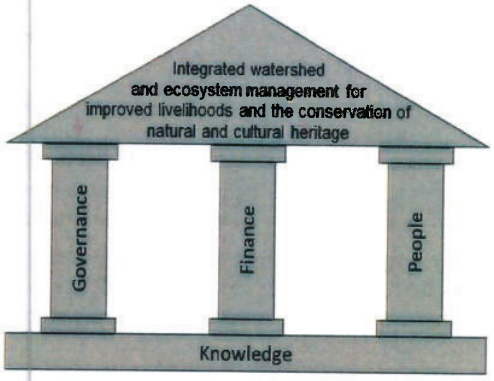


Figure 16. The three pillars of systematic, integrated watershed management on which the project has been designed to ensure sustainable and scalable impact.

Barriers

59. ***Barrier 1:*** *Policy and institutional capacity gaps for integrated planning, coordination and implementation at the national, provincial and watershed level.* Watershed management in the TSB is currently fragmented, with responsibilities distributed among multiple stakeholders and government departments overseeing different sectors[40]. This has led to siloed efforts and limited coordination. The Tonle Sap Authority, established in 2009, was intended to enhance management but has a mandate focused on research, education and information dissemination. However, it's high-level representation allows it to support coordination by identifying gaps and advancing knowledge.

60. At the local level, subnational watershed management committees, chaired by provincial governors and compromising relevant provincial departments, facilitate coordination within their jurisdictions. Despite these structures, integrated planning remains inadequate, particularly in addressing climate change alongside forest, water, biodiversity and cultural assets in protected areas (PAs) and watersheds. This challenge is further compounded when watersheds span administration boundaries.

61. Across the TSB, watershed management committees have limited capacity to make informed, evidence-based decisions that balance development goals, environmental protection and cultural values. Limited data on the interactions between forestry, water and cultural assets hampers effective management. This challenge is compounded by limited availability of geospatial information and tools — such as land and forest cover maps, tourism data, and climate trends — and a lack of capacity among decision makers to apply available evidence in planning.

62. Additionally, the committees primarily consist of key ministry representatives, excluding other vital stakeholders, including the private sector, research institutions, women and youth groups, and commodity value chain actors. The absence of a multi-stakeholder platform reduces engagement and local ownership. Consequently, key management strategies — such as the SSR Watershed Management Plan and PKNP Management Programme — are not in synergy and are not achieving the desired sustainability.

63. 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, erosion control, and pollution reduction. Instead, current

[40]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 PAs as well as Economic Land Concessions (ELCs). APSARA Authority I responsible for management of areas within the Ankor Archaeological area. Tonle Sap Authority (TSA) is a national institution leading in research and coordination of sustainable management, conservation and protection of the lake. Finally, the MLMUPC, is responsible for land administration, land management and land distribution.

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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 assessed in land use planning, and the lack of integrated watershed planning hinders monitoring of land use and forestry. This fragmentation enables continued degradation, further exacerbating climate change impacts.

64. ***Barrier 2:*** *Limited capacities to operationalise/implement sustainable financing mechanisms and mobilise investments at scale for integrated watershed management.* Cambodia faces a significant adaptation financing gap. The Cambodia NAP Financing Framework reports that only about 8% of prioritised adaptation actions were funded between 2015–2018. The updated NDC estimates at least US$ 2 billion is needed to meet adaptation needs in the country, with the majority expected to be mobilised from external sources. However, the NDC lacks a clear mobilisation strategy.

65. 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. However, further work is needed to operationalise these options to support watershed management plans across the TSB and local-level actions like the PKNP management programme.

66. A major barrier to scaling investment is the limited capacity of watershed management committees to operationalise sustainable financing solutions and engage key partners, including the private sector and International Finance Institutions (IFIs). For example, the pilot PES initiative developed by MoE with UNDP support has been constrained by the provincial administration' limited technical capacity to mobilise financial contributions from the tourism sector or channel funds to upstream communities for sustainable livelihoods that protect the landscape.

67. Additionally, local knowledge gaps hinder investments in nature-based solutions (including agroforestry and conservation agriculture) that could enhance cultural heritage protection and benefit Siem Reap's economy, particularly tourism. Similarly, performance-based climate resilience grants (PBCRGs) have faced challenges in securing co-financing for long-term implementation. The terminal evaluation of a project that piloted PBCRGs, highlighted the need to better align funding cycles with sub-national budgeting and planning processes.

68. In the existing national budgeting system, the Ministry of Economy and Finance (MEF) is the main government body responsible for the allocation of national budget for both national and sub-national administration. As indicated in the "Budget in Brief for Fiscal Year 2025", the country is in deficit for its subnational budget allocation (comparison of revenue against its recurrent and capital expenditure). Despite the absence of physical subnational mechanism for the management of climate finance, this may hinder the project to establish long-term sustainable finance mechanism for both ecosystem and climate resilient funds. Experiences from previous piloting on different mini-trust fund modalities indicated that reliance on local community alone without intervention at the subnational budget and private sector will not secure the sustainability of proposed financing modality. Though in this 2025 budget brief, the government is planning to allocate part of their USD 2.7 Billion loan to establish the Cambodia Climate Finance Facility. Though there is still no information if the facility would reach the subnational budget.

69. Private sector financing remains an untapped opportunity. Many businesses in the TSB, including those in tourism and mineral water extraction, depend on natural resources, yet no mechanism exists to manage revenue for strengthening ecosystem and community resilience. Greater engagement with the private sector is essential to unlocking sustainable finance for adaptation and conservation efforts.

70. ***Barrier 3:*** *Limited formalised knowledge on natural and cultural asset value, and nature-based solutions (NbS), undermining sustainable tourism and resource management in the TSB.* In Cambodia, gaps throughout the knowledge value chain — from generation, to dissemination, and application — hinder the effective integration of scientific, local, and indigenous knowledge into land and resource-management. This lack of integration limits informed decision-making for sustainable development at all levels of governance. Without adequate knowledge on the economic and social benefits of healthy ecosystems and biodiversity, climate change adaptation efforts are not optimal.

71. At the national and institutional levels, limited knowledge generation results in an inadequate understanding of the value of national assets in delivering essential ecosystem services. In the TSB, ecosystem service valuations are rarely integrated into decision-making, with investment in natural capital often assessed through short-term cost-benefit trade-offs rather than long-term sustainability. Reliable, locally specific valuations — demonstrating the links between ecosystem services, livelihoods and business — are essential for mobilising and sustaining investment in nature-based solutions, including conservation, restoration, and sustainable land management practices such as conservation agriculture and agroforestry.

72. Institutions like the Phnom Kulen Orchid Research and Conservation Centre have been established by government to generate knowledge on natural resources. In 2020, its mandate was expanded to promote linkages between natural and cultural assets

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for local development. However, the centre lacks the technical capacity and financing resources to fulfil its knowledge-generation role; with recent government priorities shifting away from further investment in the centre. As a result of limited knowledge-generation by this institution and others, decision-making bodies, including Watershed Management Committees and sectoral ministries/departments have limited understanding of suitable NbS for restoration, conservation, and sustainable land and resource management for business and livelihood resilience. With adequate support, the centre could serve as a national hub for conservation, rehabilitation and restoration, disseminating best practices through research and project-based monitoring. Establishing demonstration sites around the centre and within PKNP would further showcase the effectiveness of NbS over time.

73. Beyond knowledge generation, gaps also exist in data dissemination, including the availability of data management systems and decision-making tools for subnational development planning and budget allocation. While some tools have been introduced through decentralisation efforts, there has been limited focus on integrating scientific data with local and indigenous knowledge, leading to inefficient planning, poor coordination, and repetitive piloting of interventions. Additionally, inadequate monitoring, analysis and reporting on proven approaches prevent the scaling up of successful pilot initiatives. Although platforms like the NDC-tracking system exist, they require further strengthening to enhance accessibility of information, lessons learnt, and best practices for local planners and decision-makers.

74. The consequences of inadequate knowledge generation and dissemination extend to the application stage, where policy formulation and on-the-ground implementation do not reflect the interconnected climate and degradation challenges in the TSB. As a result, individual sectors prioritise short-term economic gains over climate resilience and sustainability, leading to continued environmental degradation.

75. For instance, while tourism generates revenue in the TSB, it does not substantively contribute to the protection of natural or cultural assets. Unplanned tourism, particularly during festival periods at popular sites such as the PKNP and Angkor Wat, has damaged to the archaeological sites, increased littering, and polluted water bodies. Although some villagers earn income from selling goods and services to tourists, these benefits remain unsustainable and unevenly distributed. traditional villages located far from tourist hubs are often excluded from economic opportunities related to tourism, exacerbating rural inequalities.

76. Similarly, farmers in TSB have limited technical knowledge of agroecological practices that could prevent deforestation, soil degradation, and the loss of carbon stocks and land productivity. Without information on changing ecological and climate trends, they struggle to adapt their cultivation practices or adopt NbS that enhance water conservation, groundwater recharge, and soil fertility. These technical gaps are further compounded by a lack of entrepreneurial capacity to strengthen commodity value chains and market access for products such as cashews and non-timber forest products (NTFPs) like resin, honey, and medicinal plants. As a result, poverty-driven forest encroachment and other maladaptive practices persist.

77. Addressing these gaps across the knowledge value chain — from generation to dissemination and application — is critical to ensuring sustainable land and natural-resource management in Cambodia. Strengthening institutional capacity, improving data accessibility, and enhancing knowledge-sharing mechanism will enable informed decision-making and drive long-term environmental and economic resilience. Some advancements have been made to improving knowledge management in Cambodia in recent years, particularly through the establishment of the Cambodia Environmental Management Information System (CEMIS). These efforts are being expanded through the recently approved GEF-8 Ecosystem Restoration Integrated Programme (ER-IP) project, which was developed in conjunction with and to be complementary to the proposed LDCF project. The ER-IP project will further strengthen the CEMIS platform by developing a knowledge management system and associated decision support tools for adaptive integrated watershed management, which together will close some gaps in the knowledge value chain. However, there is still need for further consideration of climate change in the knowledge systems.

II. STRATEGY

Objective

78. To build the climate resilience of local communities in the Tonle Sap Basin through an integrated watershed management approach, while conserving the natural and cultural heritage that sustains local livelihoods and societies.

Theory of Change

79. The Government of Cambodia is implementing an integrated, systems-based approach to climate-resilient watershed management through two complementary projects: one under the GEF-8 Integrated Programme for Ecosystem Restoration,

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focusing on forest conservation and restoration across the TSB[41], and this LDCF project focusing on community resilience to increasing drought and flood impacts. While each project operates independently with distinct outcomes, their aligned objectives maximise impact across the TSB landscape.

80. The LDCF project aims to enhance climate resilience for vulnerable communities in the TSB while disrupting the key drivers of land degradation to support national watershed restoration efforts. It will specifically target rural communities that rely on natural resources — including water — for their livelihoods yet face high exposure to floods and droughts with limited capacity to adapt to these impacts without external support. By promoting sustainable livelihoods that incentivise ecosystem restoration and conservation efforts, the project will also contribute to Cambodia's green growth agenda. On-the-ground efforts in the Siem Reap Province will generate critical evidence of the effectiveness of these solutions, enabling replication and scaling across the TSB and beyond through governance, finance and knowledge-based enablers.

81. The project's theory of change is structured as a coherent pathway from activities that enable strategic outputs to long-term resilience outcomes in the Tonle Sap Basin — aligned with the three pillars of sustainable investment — *Governance, Finance and People* — supported by a foundation of *knowledge and learning* (**Error! Reference source not found.**). This structure ensures c rosscutting, complementary, and sustainable benefits, creating a fully integrated solution.

82. At its core, component 1 of the project enhances the capacity of national and provincial institutions to coordinate and implement integrated watershed management, creating a robust planning framework that embeds climate resilience into decision-making processes. This essential outcome, which forms the *governance* pillar of the sustainable investment framework, enables multi-stakeholder collaboration, whereby local communities, government agencies, and private sector partners work in concert to drive nature-based solutions (NbS), including sustainable agroforestry and agricultural practices — addressing barrier 1. These collaborative efforts are supported by targeted investments and innovative financing mechanisms that reinforce the capacity to implement and scale effective conservation measures.

83. The second project component focuses on targeted investments in critical ecosystems of the upper SSR watershed, including the Phnom Kulen National Park, to enhance ecosystem service provision. This will include a combination of NbS in degraded forest and riparian ecosystems, as well as the promotion of community agro-forestry across the agroecological landscape — with the outcome of strengthening community resilience to climate hazards such as floods and drought while simultaneously strengthening agricultural livelihoods. This cost-effective approach will be further enhanced under Component 3, complementing the NbS with sustainable, climate-resilient livelihoods that disrupt the drivers of degradation and reduce pressure on natural ecosystems. The outcome of this support will not only enhance agricultural productivity under changing climate conditions but will develop the value chain for sustainably produced agricultural outputs and non-timber forest products — building the adaptive capacity of rural communities in line with the *People* pillar of the sustainable investment framework.

84. Both Components 2 and 3 include complementary Outputs directed towards the second pillar of sustainable investment — namely *finance*. This will include establishing a framework and implementation roadmap for a blended finance mechanism that will support long-term financing of community-led NbS initiatives in the SSR watershed, as well as establishing an innovation challenge fund that will leverage private investment into the development of sustainable livelihoods in rural communities. Combined, these instruments will address barrier 2, creating a sustainable platform for streamlining investment at the interface of watershed management, ecosystem restoration and community resilience.

85. The project's fourth component will directly target the foundational *knowledge and learning* aspect of the sustainable investment framework, directly enhancing knowledge of climate impacts on the agroecological landscape and the communities that rely on it, and introducing innovative digital technologies for agricultural value chains. The knowledge generated through these actions, as well as through the continual monitoring of other project activities under component 5, will be made easily available through a robust knowledge management system, allowing for adaptive management and informed decision making — thereby addressing barrier 3. This foundation of knowledge will lead to an outcome of enhanced innovation in watershed management in the long-term.

86. As these strategic outputs take root, they activate key impact drivers: coordinated multi-stakeholder planning, strong financial commitment from both public and private sectors, enhanced capacity for agroforestry and nature-based solutions, and the dissemination of replicable knowledge. These impact drivers catalyse the transition from improved planning and governance to tangible outcomes, such as restored forest ecosystems, improved water resource management, and sustainable livelihoods for communities in the TSB. In doing so, the project builds resilience against the severe impacts of climate change by breaking the

[41] Approved in December 2024

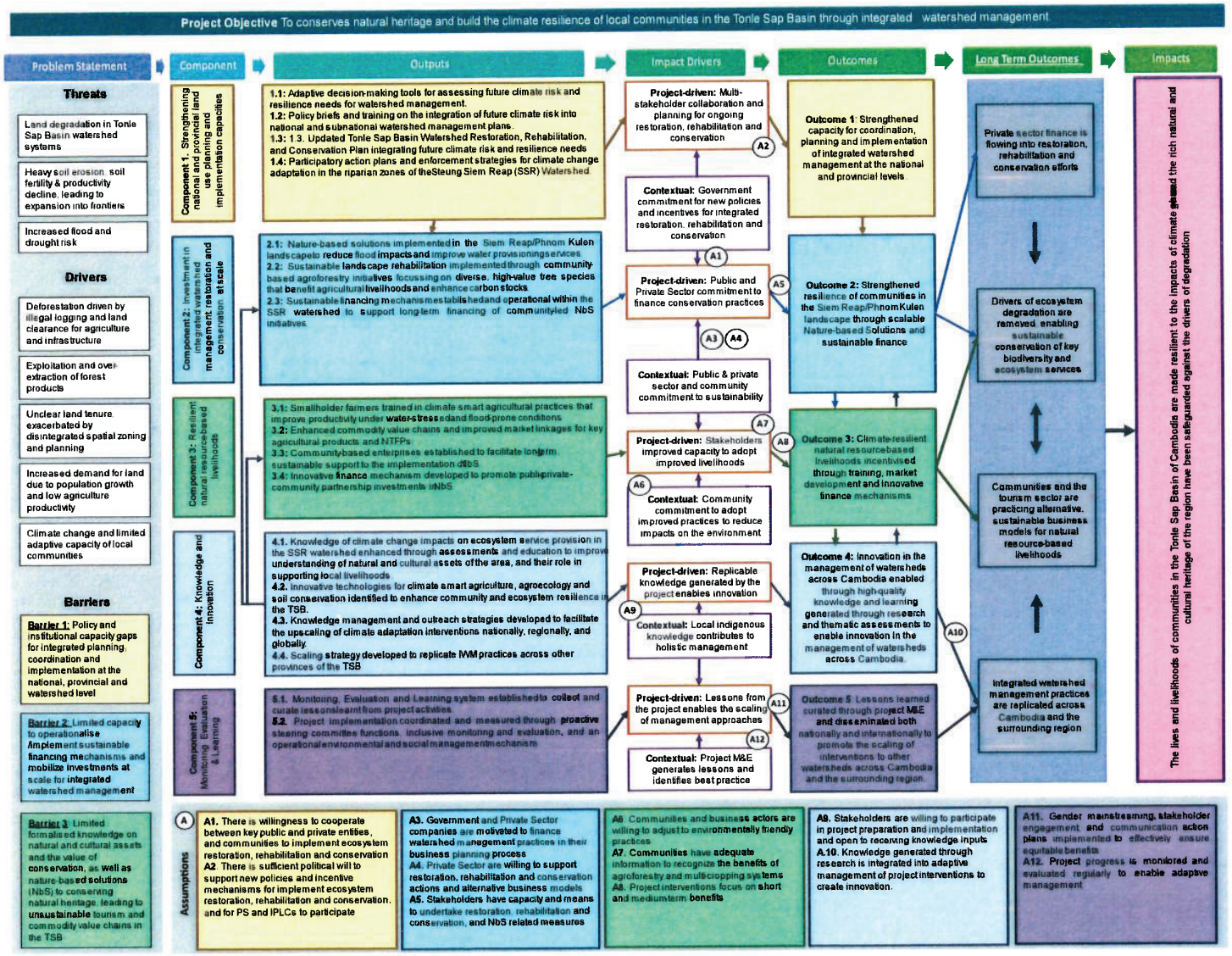
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cycle of degradation and fostering a sustainable balance between economic development, environmental conservation, and cultural heritage preservation.

87. The theory of change is underpinned by critical assumptions: that key stakeholders are committed to and capable of sustained collaboration; that there is sufficient political will and financial support to drive the necessary policy and behavioural changes; and that communities will adopt and benefit from the innovative practices introduced. These assumptions ensure that, with regular monitoring and adaptive management, the project will successfully transform the challenges posed by climate change into opportunities for sustainable development in the Tonle Sap Basin.

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Site Selection

88. While broader management interventions under Component 1 will cover the entire Tonle Sap Basin (TSB), on-the-ground investments under Component 2 will focus on the Steung Siem Reap (SSR) watershed — particularly focussing on water source areas in the Phnom Kulen National Park (PKNP) and the forest mosaic in the middle to upper reaches. The Royal Government of Cambodia (RGC) has prioritised the SSR watershed for several reasons, including: i) its diverse habitats and stressors; ii) the presence of nationally important protected areas and cultural heritage sites[42]; and iii) its economic and strategic importance as the country's main tourism destination[43]. The significance of the Siem Reap Province to the tourism sector is further highlighted by the 'Visit Siem Reap 2024' initiative, launched by the Prime Minister to boost post-Covid-19 recovery through private-sector partnerships, supported by tax and travel incentives. Additionally, Phnom Kulen National Park has been identified as a priority for tourism revitalisation, with plans to develop it into a premier green destination for cultural, natural, adventure, and religious tourism.

89. Within the SSR watershed, intervention sites have been identified based on activity type, community needs, and land ownership. These interventions will span diverse habitats, including community-protected areas (CPAs) within the PKNP, upstream community forests (CFs) surrounding the PKNP, and agricultural land suited for climate-resilient practices such as regenerative agriculture and agroforestry. This habitat diversity allows the project to not only maximise the scale of impact but also demonstrate the suitability of different restoration approaches, tailored to their surrounding habitats. Given the site's geographical similarities to other provinces in the Tonle Sap Basin, successful interventions could be replicated to support broader conservation and sustainability efforts across the TSB and into the wider Mekong River landscape.

90. Due to the sensitivity of the area, on-the-ground interventions will not take place within the Angkor Archaeological Area; the management of this area is instead overseen by the APSARA authority, which has ongoing initiatives working with communities to conserve and restore forest ecosystems. Additionally, cultural heritage considerations have been integrated in the project's social safeguard assessment and plan[44].

Alignment with GEF-8 Programming Strategies and Country Priorities

GEF Programming Strategy

91. The project will contribute to Outcome 3 of the UNSDCF/Country Programme Results and Resource Framework, specifically that by 2028, people in Cambodia, especially those at risk of being left behind, benefit from a healthier, gender-inclusive natural environment. Furthermore, the project design is aligned with all LDCF priority areas and entry points across three priority themes: Theme 1 (Agriculture, Food Security, and Health); Theme 2 (Water); and Theme 3 (Nature-based Solutions). Additionally, the project has a strong focus on strengthening/establishing sustainable alternative livelihoods.

92. The project aligns with LDCF Priority Area 1 (Scaling Up Finance) by reinforcing cross-sectoral policy coherence and strengthening coordination, planning, and implementation capacity for integrated watershed management across different government levels under Outcome 1. To ensure long-term sustainability, the project will establish two innovative finance mechanisms: i) under Outcome 2, a mechanism supporting landscape-level nature-based solutions (NbS), and (ii) under Outcome 3, a mechanism leveraging public-private-community partnerships to finance sustainable, climate-resilient natural resource-based livelihoods.

93. The project contributes to LDCF Priority Area 2 (Strengthening Innovation and Private Sector Engagement) through two key entry points: i) Enabling conditions for Private Sector Action: The project addresses knowledge barriers to private sector investment through two dedicated knowledge-management (KM) interventions. Under Output 1.1, it will establish a KM platform and decision-support tool to inform land and natural resource management for public and private sector decision-makers. This will be complemented by extensive knowledge-generation under Outcome 4, including climate, biodiversity, and sustainable agriculture assessments focused on NbS for enhancing ecosystem services in the Steung Siem Reap (SSR) Watershed; ii) Incubating and Accelerating MSMEs: Outcome 3 focuses on incubating and scaling holistic micro, small, and medium enterprises (MSMEs) with the capacity to attract private equity for green finance. Under Output 3.2, the project will develop business models for regenerative agriculture value chains and sustainably sourced NTFPs. Under Output 3.3, it will support

[42] The SSR contains sacred sites for the Khmer people for their cultural heritage value and legacy of the origin of the Kingdom of Cambodia. This includes the Angkor Archaeological Area.

[43] In 2019, tourism generated more than USD4.9 billion in revenue, contributed to 479,000 direct and indirect jobs in Siem Reap, and tourists in Siem Reap province alone spent USD1.2 billion. Recently, the government has released the Tourism Master Plan Siem Reap (2021–2023) aiming to boost international visitors. As part of the Master Plan, USD150 million has been invested in infrastructure development.

[44] including alignment with UNESCO's guidelines and management plans related to World Heritage Sites

enterprises facilitating long-term NbS investments. Together, these interventions will enable private equity investment in sustainable natural resource-based MSMEs under Output 3.4.

94. Finally, the project will contribute to Priority Area 3 (Fostering Partnerships for Inclusion and Whole-of-Society Approach) through three key entry points: i) the project will implement capacity-building at all levels, from institutional strengthening under Outputs 1.1 and 1.2, to community-level capacity-building for agroforestry, climate-resilient agriculture, sustainable NTFP-based livelihoods, and eco-tourism, under Activities 2.2.3, 3.1.1, 3.2.2, and 3.3.4, respectively; ii) the project will collaborate with local organisations to promote social inclusion. In particular, Activity 3.2.1 will support the development of women-led enterprises for agricultural products and NTFPs, fostering economic empowerment and gender equity; and iii) the project will establish two IFMs in partnership with the private sector to advance the whole-of-society approach. The first IFM, under Output 2.3, will leverage blended finance to scale up NbS at the landscape level. The second IFM, under Output 3.4, will mobilise private equity to support MSMEs engaged in sustainable natural resource-based livelihoods.

National strategies and baseline investments

95. The project is nationally driven and designed to directly address key national priorities related to environmental degradation, climate change and sustainable development. It aligns with various policies and plans, including the Cambodia Climate Change Strategic Plan (2014–2023)[45]; the Pentagonal Strategy Phase I; the Circular Strategy on Environment (2023–2028); the Nationally Determined Contributions (NDCs 2020)[46]; the National Action Plan for Combating Land Degradation (2018–2027); and the National Biodiversity Strategy and Action Plan (NBSAP 2016–2025)[47]. Specifically, the project supports national targets to: i) increase forest cover to 47% of the total land area and reduce deforestation rates by 50% by 2030; ii) cut historical emissions by 50% by 2030; iii) enhance soil organic carbon stocks in forests and croplands by 1.2% annually; iv) identify, inventory, monitor and raise awareness about habitats, ecosystems and their services; v) strengthen measures that positively impact biodiversity; and vi) strengthen the enabling environment for sustainable resource management.

96. The LDCF adaptation project aligns closely with the Cambodia Climate Change Strategic Plan (CCCSP) 2014–2023 by addressing multiple strategic objectives through nature-based solutions (NbS) that enhance climate resilience and sustainable development. By implementing forest restoration, climate-resilient agriculture, and agroforestry, the project directly supports Strategic Objective 1, which aims to promote climate resilience in critical sectors, particularly agriculture, forestry, and water resources. These interventions also contribute to Strategic Objective 2 by safeguarding and enhancing ecosystem services that are vital for climate adaptation and mitigation. Furthermore, by promoting sustainable natural resource-based livelihoods—such as eco-tourism and non-timber forest product harvesting—the project aligns with Strategic Objective 3, which seeks to improve livelihoods and enhance community resilience to climate change. The project also strengthens institutional and technical capacity, supporting Strategic Objective 5, which calls for the development of human and institutional capacity for climate change response. Additionally, the establishment of innovative finance mechanisms ensures long-term financial sustainability, aligning with Strategic Objective 6, which emphasises strengthening collaboration and funding mechanisms to support climate action. Finally, the project contributes to Strategic Objective 7 by enhancing the enabling environment for NbS implementation through knowledge-sharing and institutional capacity-building, fostering long-term climate governance improvements. In doing so, the project supports the CCCSP's overarching goal of integrating climate resilience into Cambodia's development trajectory.

97. The project strongly aligns with the NBSAP's vision by directly contributing to its mission in several keyways. It facilitates the mainstreaming of biodiversity considerations into national development and sectoral policies under Output 1.2 by promoting nature-based solutions (NbS) to enhance climate resilience. It also supports biodiversity valuation, specifically assessing the regulating and recreational services provided by ecosystems in the Tonle Sap Basin under Activity 1.3.3. Additionally, the project mitigates direct pressures on biodiversity by restoring degraded ecosystems through NbS under Output 2. Simultaneously, it addresses indirect degradation pressures by building the capacity of rural smallholders to implement sustainable, climate-resilient practices — including regenerative crop production, agroforestry, and non-timber forest product (NFTP)-based initiatives — which not only strengthen natural resource-based livelihoods but also create incentives for biodiversity conservation and restoration under Outcomes 2 and 3. Furthermore, it promotes the wise use of natural resources by providing

[45] A new version of the CCCSP has recently been approved. At project inception, the PMU will assess the document against the revised CCCSP to identify if any adjustments. However, it should be noted that the project has been developed with full input from MoE and is aligned with the anticipated targets of the revised CCCSP.

[46] As Cambodia does not currently 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.

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

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training and incentives for sustainable NTFP harvesting under Output 3.2. Finally, it strengthens the enabling environment for NBSAP implementation through extensive institutional capacity building and knowledge-management initiatives under Outcomes 1 and 4.

98. The project's focus on climate adaptation aligns with NBSAP Theme 8 (Biodiversity and Climate Change), contributing to all four strategic objectives for overcoming adaptation barriers. Under Outcome 4, it supports Strategic Objective 1 by conducting assessments to: i) enhance understanding of biodiversity conservation and restoration in building community resilience in the Tonle Sap Basin (TSB); and ii) improve knowledge of climate risks, impacts, and adaptation in the Steung Siem Reap (SSR) Watershed. These assessments also examine ecosystem services in the SSR Watershed and their links to environment, culture, and livelihoods, particularly in agriculture, NTTFs, and tourism. Under Outcome 2, biodiversity conservation initiatives contribute to adaptation and mitigation, aligning with Strategic Objective 2. Furthermore, by strengthening sustainable, climate-resilient, natural resource-dependent livelihoods (Outcomes 2 and 3) and implementing innovative finance mechanisms (IFMs) for long-term sustainability, the project advances Strategic Objective 3, which seeks to minimise anthropogenic pressures on climate-vulnerable ecosystems. Finally, under Outcome 1, the project enhances the enabling environment for adaptation through biodiversity conservation, restoration, and sustainable use, supporting Strategic Objective 4.

99. The project also contributes to the adaptation priorities outlined in Cambodia's updated NDC (2020). These include building capacity for climate change innovation in the tourism industry along the Tonle Sap River, establishing a centralised and standardised approach to climate-resilient water management, strengthening flood resilience in communities surrounding Lake Tonle Sap, enhancing biodiversity conservation and restoration efforts to adapt to climate change, and advancing post-harvesting processing techniques and agribusiness development. Additionally, the project aligns with several other key national policies including the: i) National REDD+ Strategy (2017–2026)[48]; ii) Long-Term Strategy for Carbon Neutrality (LTS4CN); 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.

100. The proposed LDCF project builds on key lessons and best practices from past initiatives in Cambodia to ensure an integrated, systems-based approach to climate resilience in the Tonle Sap Basin (TSB). Drawing from the Second Urban Environmental Management Project (2018–2024) and INRM (2020–2025) efforts, the project integrates climate resilience into land use and watershed management planning, ensuring upstream conservation efforts support urban water security. The project builds on the Cambodia Sustainable Landscape and Ecotourism Project (2019–2025) and the Tonle Sap Biosphere Reserve Project (2019–2024) to further strengthens governance mechanisms by linking protected area management with broader watershed restoration efforts. The project also leverages market-based approaches from the Feed the Future Cambodia Harvest III (2022–2027) and PEARL (2023–2029) projects, promoting climate-resilient agriculture and incentivising conservation through value chains and financial mechanisms. Additionally, insights from ASPIRE AT (2022–2030) and AIMS (2016–2024) inform strategies to enhance smallholder resilience, linking sustainable practices with private sector investment. By incorporating these proven approaches within the three pillars of governance, finance, and people — underpinned by knowledge and learning — the project ensures a scalable and lasting impact in building climate resilience for vulnerable communities in the TSB. More details on past and ongoing projects on climate change adaptation and biodiversity in the TSB, along with their alignment with the proposed project, are provided in Annex 20.

III. RESULTS AND PARTNERSHIPS

Expected Results

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

(Total Cost: US$ 2,244,59289; GEF project grant requested: US$ 693,071; Co-financing: US$ 1,551,518)

101. The first Component is aligned to the Governance pillar, and will improve the coordination, planning and implementation capacities of national and provincial leadership. This will address Barrier 1 identified above and create an enabling environment for ongoing 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.

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

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

102. The first Outcome will be achieved through four Outputs, each of which will complement efforts under the Integrated Programme for Ecosystem Restoration by specifically building on the aspects of climate resilience.

103. The combined impact of these outputs will result in significantly strengthened capacity for coordination, planning, and implementation of integrated watershed management at both national and provincial levels. By equipping decision-makers with adaptive decision-making tools, the project ensures that watershed management strategies are informed by climate risk assessments and resilience needs. The development of policy briefs and training programs will further embed gender-sensitive climate resilience into planning frameworks, ensuring that national and sub-national agencies have the knowledge and guidance required to align their policies with emerging climate risks and their differential impacts on different societal groups. Together, these efforts enhance institutional coordination, creating an enabling environment where multi-stakeholder governance structures — such as Watershed Management Committees (WMCs) — can effectively integrate climate considerations into land use planning, water resource management, and disaster risk reduction efforts. The project will leverage the support of WMCs that will be strengthened through the ER-IP project, expanding on the capacity development efforts to better integrate climate change across the various levels of planning. This will enable multi-stakeholder representation from local communities, civil society and the private sector (including tourism, water bottling and agriculture sectors), all of which play a critical role in effective implementation. Of particular importance is the inclusion of women's interest groups, as well as indigenous groups and cultural leaders, to ensure that the management of the Tonle Sap Basin (TSB), and the Steung Siem Reap (SSR) Watershed in particular, is fully gender and socially responsive. The strengthened WMCs will also enable effective inter-administrative coordination.

104. At the landscape level, these strengthened capacities will translate into more cohesive and climate-responsive watershed management. The updated Tonle Sap Basin Watershed Restoration, Rehabilitation, and Conservation Plan will serve as a guiding framework for integrating future climate risks into watershed governance, ensuring that interventions are aligned with national adaptation priorities. The participatory action plans developed for the Steung Siem Reap (SSR) Watershed will further operationalise these strategies, fostering community-driven conservation and adaptation efforts in one of the most vulnerable riparian zones. By embedding climate resilience into both high-level planning and local implementation strategies, the project will establish a scalable model for integrated watershed management that can be replicated across other provinces, ultimately enhancing national resilience to climate-induced water and land degradation challenges.

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

105. To support the planning processes described above, the project will establish an adaptive watershed management decision-support tool focused 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 climate-resilient watershed management — creating a single, user-friendly interface for informed decision making on watershed management.

106. The resulting tool 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 MoE systems, 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. The tools will include specific consideration of gender-specific climate impacts and adaptation needs to ensure that adaptation planning using these tools is gender responsive.

Activity 1.1.1: Develop a web-based decision-support tool integrated within CEMIS for watershed management and monitoring

107. The project will develop a web-based decision-support tool (DST) to facilitate adaptive watershed management, integrating climate risk assessment, geospatial monitoring, and ecosystem service valuation. The DST will be built using the ESRI System and other GIS-based tools, ensuring seamless integration with existing national platforms such as Cambodia's Environmental Management Information System (CEMIS), while incorporating a user-friendly interface to maximise accessibility for a broad range of stakeholders. The development process will follow a participatory approach, engaging government agencies, non-governmental institutions, academia, and private sector stakeholders to ensure the tool meets diverse user needs and incorporates locally relevant data sources. An inventory of existing tools will also be conducted, along with a gap analysis to

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identify entry points for streamlining tools into a single user interface. This will include engagements to identify and refine the indicators to be assessed through the tool — considering the nature and frequency of data collection systems — and the nature of the outputs and reports that arise from the tools. A comprehensive reference pool of international and national watershed management tools — **including the Natural Capital Projects' InVest tool, UN Biodiversity Lab, Co$ting Nature Policy Support** System, and mobile applications such as LandPKS and SMART — will be established to guide development.

108. The platform will feature a modular architecture, allowing for future expansion and integration of AI-driven predictive analytics for adaptation planning. Key functionalities will include interactive geospatial dashboards, automated reporting tools, scenario modelling, and climate-adaptive agricultural planning features — leveraging the power of existing tools noted above where feasible. The DST will also include specific consideration of gender-differentiated climate vulnerabilities and needs, ensuring that strategic recommendations generated through the DST are fully gender responsive. To enhance accessibility, the DST will be mobile-compatible with offline functionality for field-based users. The system will also link with the knowledge management systems (KMS) under Output 4.3, incorporating local and indigenous knowledge to ensure a holistic approach to watershed management. To promote the long-term sustainability of the DST, MoE will engage local academic institutions during implementation to identify partnership opportunities for supporting the development, maintenance, and long-term expansion of the tools.

Activity 1.1.2: Develop standard operating procedures for the operationalisation of the decision-support tool, including its data storage and maintenance

109. To ensure the effective operationalisation and long-term sustainability of the decision-support tool (DST), the project will develop a comprehensive set of standard operating procedures (SOPs). These SOPs will define the roles and responsibilities of the Ministry of Environment (MoE) as the national host, outlining protocols for system administration, definitions of indicators, data collection modalities, data entry processes, validation, and interoperability with existing platforms such as CEMIS. Given the expanded functionality of the DST, the SOPs will also include clear user access levels, ensuring that national and provincial stakeholders have appropriate permissions for data entry, analysis, and decision-making. Data security, governance, and ownership protocols will also be established to safeguard information and ensure compliance with national policies.

    The SOPs will establish structured procedures for system maintenance, including data update schedules, quality control mechanisms, and security protocols to safeguard sensitive information[49]. Specific attention will be given to training programs for MoE personnel and key stakeholders, ensuring that they are equipped to use, manage, and troubleshoot the DST effectively (see Activity 1.1.4 below). Additionally, the SOPs will define mechanisms for adaptive management, integrating user feedback loops and continuous system improvements. Formalised data-sharing agreements will be developed to enhance collaboration across government agencies, research institutions, and private sector partners, ensuring the DST remains a dynamic and valuable tool for evidence-based decision-making on climate-resilient watershed management at both national and provincial levels.

Activity 1.1.3: Facilitate the designation of specific personnel at MoE to operationalise and maintain the Platform and Tool

110. To ensure the effective deployment and long-term sustainability of the DST, the project will coordinate with MoE to formally designate dedicated personnel within the Ministry for its operation and maintenance. This process will involve identifying key technical staff across relevant departments and defining clear roles and responsibilities for system administration, data management, and user support (drawing on the SOPs developed under Activity 1.1.2). A structured selection process will be undertaken to ensure that personnel with the necessary expertise in GIS, environmental monitoring, and climate risk analysis are appointed. The personnel will also include individuals with a programming background to maintain the system and deal with back-end issues that may arise during the operation of the platform. Additionally, internal capacity assessments will be conducted to determine any required upskilling needs, enabling targeted training efforts. The designated personnel will serve as the central point of coordination for the DST, ensuring smooth data flow between national and provincial agencies, facilitating **stakeholder engagement, and providing ongoing technical oversight to maintain the platform's functionality and relevance.**

Activity 1.1.4: Initiate a training-of-trainers (ToT) approach to build the technical capacity of relevant personnel within MoE to operate the platform and train decision-makers on its use and application

111. Once the core operational team is designated, the project will implement a structured training-of-trainers (ToT) programme to equip MoE personnel with the technical knowledge required to manage the DST and guide decision-makers in its effective use.

[49] The specific needs for the systems maintenance will be informed by the consultation process for done for the design of the tool.

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This approach will focus on building expertise in key areas such as data input and analysis, climate risk modelling, scenario-based planning, and geospatial visualisation. The training will be delivered in collaboration with technical experts from academic institutions, GIS specialists, and international experts, ensuring alignment with best practices in climate resilience and watershed management. To enhance knowledge retention and application, the ToT sessions will incorporate hands-on, case-based exercises tailored to real-world watershed management challenges in Cambodia. Trained personnel will then be responsible for cascading the knowledge to provincial-level decision-makers, ensuring that the DST is effectively used across multiple governance levels. Additionally, digital training modules and user guides will be developed to support ongoing capacity building beyond the initial training phase. Individuals selected as trainers will include a combination of men and women, and trainers will be set individual targets for gender-sensitive training.

Activity 1.1.5: Establish a long-term capacity development programme operated through the MoE to apply knowledge in decision-making processes

112. Building on the ToT approach, the project will institutionalise a long-term capacity development programme within MoE to ensure the sustained integration of climate risk and watershed management knowledge into national and provincial decision-making processes. This programme will be embedded within existing government training structures and will provide continuous learning opportunities for both MoE personnel and other key stakeholders, including provincial officials, research institutions, and private sector actors involved in watershed management — ensuring suitable gender representation in the training structures (targets to be set during project inception).

    The programme will include periodic refresher courses, workshops, and knowledge exchange forums, allowing participants to stay updated on advancements in climate science, geospatial analysis, and integrated watershed management. To promote inclusive decision-making, all training modules will incorporate dedicated components on gender equality and social inclusion, raising awareness on the differential impacts of climate change across gender and vulnerable groups. These components will equip participants with practical tools and frameworks to apply gender-responsive and socially inclusive approaches in climate-resilient watershed management and land-use planning.

113. Furthermore, a mentorship system will be established to pair experienced MoE staff with newer personnel, fostering institutional knowledge retention. The programme will also leverage e-learning platforms and partnerships with universities to ensure that training remains accessible, inclusive, and scalable — particularly for women and underrepresented groups — **ultimately strengthening Cambodia's institutional resilience to climate change impacts on water resources and land use. This** will include exploring options to integrate training on the use of project-supported tools in university curricula.

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

114. With strengthened coordination mechanisms and decision-support tools in place, the project will support the integration of climate resilience considerations into national and sub-national watershed management plans across key sectors, including forestry, water, agriculture, and tourism. Targeted plans will include: i) the PKNP Management Programme and Action Plan; ii) National/Protected Area Strategic Management Plan; iii) the National Forest Programme; iv) National Action Programme for Combating Land Degradation; v) the National Biodiversity Strategy and Action Plan; and vi) the National PES Financing Roadmap [50]. This process will involve a comprehensive review of existing policies and frameworks, identifying gaps and opportunities to incorporate future climate risk projections. Policy briefs will be developed to provide actionable recommendations for mainstreaming climate resilience, ensuring coherence across sectoral plans while addressing the needs of diverse stakeholders, including vulnerable communities, indigenous groups, and women who rely on the natural resources provided by the watershed ecosystems for their livelihoods (including the tourism sector). These briefs will also be underpinned by a Social and Environmental Strategic Assessment conducted in line with UNDP safeguard policy. The project will adopt a collaborative governance approach, engaging Watershed Management Committees (WMCs), government agencies, and civil society to ensure that policy revisions are inclusive, evidence-**based, and aligned with Cambodia's national climate adaptation and biodiversity** goals — with the owners of each policy taking the lead in adopting the recommendations in their respective sectors. Recommendations will be validated through stakeholder consultations and integrated into policy frameworks through targeted training programs for decision-makers at the national and sub-national levels. Lessons learnt from activities in target landscapes,

50 The plans and policies listed here are indicative and will be refined during full project preparation through a consultative process.

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such as the local-level planning under Output 1.3 and the establishment of the innovative finance under Output 2.1, will serve as key references to the revision and/or formulation of the coherent national level policies/frameworks related to watershed governance.

Activity 1.2.1: Review national and sub-national plans across relevant sectors related to watershed management (including forestry, water, agriculture, and tourism)

115. The project will conduct a systematic review of national and provincial policies and management plans related to watershed governance, identifying existing provisions for climate resilience as well as key gaps and inconsistencies. This review will cover frameworks such as the PKNP Management and Action Plan, National Forest Programme, National Biodiversity Strategy and Action Plan, and the National PES Financing Roadmap, among others, identifying gaps and policy revision needs. The process will involve consultations with government ministries, technical experts, and local stakeholders to ensure that policy needs identified are grounded in both scientific evidence and practical implementation considerations — ensuring equal representation of women in the consultation process. The review will also assess alignment with international commitments, including Cambodia's Nationally Determined Contributions (NDCs) under the Paris Agreement, ensuring that watershed management strategies contribute to national climate adaptation targets.

Activity 1.2.2: Prepare policy briefs to guide the coherent and gender-balanced integration of climate resilience into sectoral plans

116. Building on the findings from the policy review, the project will develop a series of policy briefs outlining recommendations for the integration of climate resilience into key sectoral plans. These briefs will provide clear, actionable guidance on incorporating climate risk projections, ecosystem-based adaptation strategies, and gender-responsive approaches into watershed management planning. The policy briefs will be designed for use by government agencies, development partners, and private sector actors, ensuring they serve as practical tools for decision-making. To strengthen their impact, the briefs will incorporate lessons learnt from activities within the project, including on-the-ground restoration efforts, innovative finance, market development and climate-resilient agriculture initiatives, demonstrating how integrated approaches can enhance resilience and sustainable development outcomes.

Activity 1.2.3: Host a multi-stakeholder validation workshop to present policy recommendations and garner support for their uptake

117. To ensure that proposed policy recommendations are well-supported and effectively integrated into planning frameworks, the project will convene a multi-stakeholder validation workshop. This workshop will bring together representatives from national and provincial governments, WMCs, private sector actors, academic institutions, and local community groups to review and refine the policy briefs. Participants will have the opportunity to provide feedback, share perspectives on implementation challenges, and identify pathways for integrating the recommendations into existing governance structures. The workshop will also serve as a platform for building consensus and securing commitments from key institutions to adopt and operationalise the proposed policy changes.

Activity 1.2.4: Train decision-makers at local, provincial, and national government levels on the use of project-developed tools to implement policies and integrate future climate risk into watershed management plans

118. Following the validation of policy recommendations, the project will deliver targeted training sessions for government officials and technical staff at multiple governance levels to build their capacity to implement climate-responsive watershed management policies. Training modules will focus on the use of decision-support tools developed under Output 1.1, demonstrating how these tools can inform adaptive management strategies, land-use planning, and disaster risk reduction. The sessions will also emphasise cross-sectoral coordination, ensuring that decision-makers understand the interdependencies between forestry, agriculture, water management, and economic activities such as tourism. By equipping policymakers with the knowledge and technical skills to apply climate risk considerations in planning and decision-making, the project will ensure that the integration of resilience measures extends beyond the immediate intervention areas, supporting broader institutional and systemic change.

Output 1.3: Updated Tonle Sap Basin Watershed Restoration, Rehabilitation, and Conservation Plan integrating future climate risk and resilience needs

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119. Building on strengthened inter-administrative coordination mechanisms (under Outcome 1 of ER-IP project), this output will update and enhance the Integrated Tonle Sap Basin Watershed Restoration, Rehabilitation, and Conservation Plan to incorporate climate resilience, gender responsiveness, and nature-based solutions. The revised plan will provide a strategic framework for balancing environmental conservation with socio-economic development, ensuring that watershed management efforts support both ecological integrity and community resilience. This process will be informed by comprehensive land use, land cover, and climate risk assessments, as well as ecosystem mapping to identify critical areas for restoration and sustainable management. Additionally, the updated plan will align with national policies and international commitments, ensuring integration into Cambodia's National Biodiversity Strategy and Action Plan (NBSAP), the Land Degradation Neutrality (LDN) Action Plan, and the broader national spatial planning framework.

120. To ensure practical implementation, the plan will be developed through a participatory approach, incorporating insights from diverse stakeholder groups, including local communities, indigenous leaders, the private sector, and conservation organisations. Special attention will be given to identifying economic opportunities that align with conservation efforts, such as ecotourism, agroforestry, and payment for ecosystem services. The updated plan will serve as a guiding document for decision-makers at national and sub-national levels, ensuring that future watershed management initiatives are informed by scientific data, local knowledge, and climate resilience principles. All activities under this Output will consider ongoing efforts to update the Tonle Sap Basin Watershed Restoration, Rehabilitation, and Conservation Plan under the ER-IP project, sharing resources where feasible, with the LDCF project focused specifically on the climate-responsiveness of the plan. The final revised plan will incorporate inputs from both projects, with the ER-IP project holding primary responsibility for consolidating and validating the plan.

Activity 1.3.1: Review the existing Integrated Tonle Sap Basin Watershed Restoration, Rehabilitation, and Conservation Plan to identify gaps and opportunities for integrating climate risk and resilience

121. A detailed review of the existing Integrated Tonle Sap Basin Watershed Restoration, Rehabilitation, and Conservation Plan will be conducted to assess its alignment with climate resilience priorities and evolving environmental challenges — accounting for the ongoing efforts under the ER-IP project. The review will identify gaps in addressing climate-induced risks such as flooding, droughts, and land degradation, as well as opportunities to enhance the role of nature-based solutions. Key areas of focus will include watershed governance structures, restoration priorities, and socio-economic considerations, ensuring that the updated plan effectively supports both ecological and human well-being.

Activity 1.3.2: Conduct land use, land cover, and climate risk assessments for the TSB, underpinned by extensive stakeholder engagements

122. This activity will generate data-driven insights on current land use patterns, forest cover trends, and climate vulnerabilities within the Tonle Sap Basin (TSB). Advanced geospatial tools and climate modelling techniques will be used to assess flood and drought risks, deforestation rates, and agricultural expansion pressures. The assessment will be conducted in close collaboration with government agencies, local communities, and research institutions, ensuring that stakeholder perspectives and traditional ecological knowledge are integrated into the analysis. This will include specific consideration of marginalised and vulnerable groups, including women, youth, and indigenous communities. The results will directly inform planning decisions, guiding targeted interventions for watershed restoration and resilience-building.

Activity 1.3.3: Conduct integrated ecosystem mapping to identify remnant forest areas and riparian zones along critical waterways and mapping potential partnerships for sustainable socio-cultural and economic actions across the TSB

123. A comprehensive ecosystem mapping exercise will be conducted to delineate ecosystem extent and identify/prioritise areas for conservation, restoration, and sustainable land management. The watershed's boundaries will be mapped to define the spatial extent of ecosystems under assessment, ensuring precise analysis and monitoring. This process will focus on remnant forests, riparian zones, and key biodiversity corridors that provide essential ecosystem services such as flood regulation, water purification, and carbon sequestration. The outcome will include a comprehensive natural resources inventory, encompassing climate, biophysical, and socioeconomic characteristics. This will include key natural features such as geology, soils, waterbodies, wetlands, forests and wildlife, alongside cultural assets like archaeological features, and scenic and recreational resources. Existing datasets will be leveraged where available, while new data will be collected to fill critical gaps. The inventory will integrate maps, datasets, and a descriptive report. These will be incorporated into the knowledge-management platform, providing an accessible resource for land-use planning and policy formulation. In addition, the mapping will draw on the results of the ecosystem service valuation happening under Output 4.1 (including financial/economic benefits ecotourism and

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community-based forestry enterprises) to identify potential public-private-community partnerships that can support long-term watershed sustainability.

Activity 1.3.4: Assess land degradation to identify areas for restoration and rehabilitation

124. The project will assess land degradation hotspots across the TSB, identifying the root causes of ecosystem decline and priority areas for intervention. Using a combination of remote sensing, soil analysis and on-site inspections to ground truth remote data, the study will evaluate the extent of deforestation, erosion, and declining soil fertility. Special attention will be given to areas where unsustainable agricultural practices have led to degradation, with recommendations for implementing nature-based solutions such as agroforestry, reforestation, and climate-resilient agriculture techniques.

125. The assessment will include more focused a biophysical analysis of the SSR watershed, covering several key components:

- Ecosystem condition assessment: This will evaluate ecosystem health using indicators such as intact forest cover per sub-basin; land degradation extent, and degradation drivers. By quantifying these factors, the assessment will provide insights into ecosystem resilience and vulnerability, and enhance understanding of the importance of native tree species in providing ecosystem services.
- Ecosystem services supply analysis: This assessment will quantify key ecosystem services, such as volume of water supply, to support modelling efforts and valuation. It will incorporate historical trends and projections of critical climate variables including temperature, precipitation, relative humidity, and indicators like growing season length and frequency of extreme events.
- Socio-ecological assessment: This assessment will explore the interactions between the environment, culture, and tourism, as well as the role these variables play in local livelihoods and resilience.

126. The integration of these datasets will enable a data-driven understanding of ecosystem service supply, risks, and economic dependencies, supporting sustainable resource management and long-term resilience planning.

Activity 1.3.5: Incorporate the results of land use and land cover analysis as well as ecosystem mapping, climate hazard and vulnerability information to formulate a climate-resilient and gender-responsive Tonle Sap Basin Watershed Restoration, Rehabilitation, and Conservation Plan

127. Drawing on the insights from previous activities, the project will provide inputs to the updated, climate-resilient, and gender-responsive Tonle Sap Basin Watershed Restoration, Rehabilitation, and Conservation Plan that integrates the latest data on climate risks, ecosystem services, and socio-economic factors. The inputs form this project will feed into the efforts to update the plan under ER-IP, resulting in a comprehensive and climate-responsive plan that will outline priority restoration and conservation areas, establish best practices for land management, and provide policy framework to strengthen institutional coordination. Gender, equity and inclusion considerations will be embedded into the plan, ensuring that the needs and perspectives of women, indigenous groups, and vulnerable communities are addressed in watershed governance and restoration efforts.

Activity 1.3.6: Incorporate the revised plan into the existing national spatial plan and environmental-related action plans such as NBSAP and LDN Action Plan

128. To ensure long-term institutionalisation, the updated watershed management plan **will be formally integrated into Cambodia's** national and sub-national planning frameworks. This process will involve aligning the revised plan with the National Biodiversity Strategy and Action Plan (NBSAP), the Land Degradation Neutrality (LDN) Action Plan, and other relevant policy frameworks. Coordination with government agencies will be essential to embed the plan within land use regulations, environmental policies, and investment strategies, ensuring that watershed management remains a national priority supported by regulatory and financial mechanisms.

Activity 1.3.7: Develop SOPs for regional and national decision-making bodies to internalise the management and decision-making processes laid out in the plan, including streamlining the use of decision-making models and tools proposed under Output 1.1

129. To ensure the effective implementation and institutionalisation of the Tonle Sap Basin Watershed Restoration, Rehabilitation, and Conservation Plan, the project will develop SOPs for regional and national decision-making bodies. These SOPs will provide

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clear guidelines on the governance, coordination, and decision-making processes necessary to operationalise the updated plan. They will outline roles and responsibilities for key institutions, mechanisms for inter-agency collaboration, and procedures for integrating scientific data, climate projections, and local knowledge into planning decisions.

130. A key focus of the SOPs will be streamlining the use of decision-making models and tools developed under Output 1.1, ensuring that stakeholders at different governance levels are equipped to interpret and apply data-driven insights. Additionally, the SOPs will establish processes for adaptive management, enabling government agencies to continuously update and refine watershed management strategies based on real-time environmental monitoring and stakeholder feedback.

131. The SOPs will be developed through consultations with government agencies, WMCs, and technical experts, ensuring alignment with national policies and regulatory frameworks. These consultations will create the foundation for the formal adoption of the SOPs among the affected agencies, ensuring that the procedures are strictly followed in all relevant sectors. Once finalised, they will be incorporated into capacity-building programs and institutional training to facilitate long-term adoption and institutionalisation of climate-resilient watershed management practices. This will include linking to the training under Activity 1.2.4, ensuring decision-makers are adequately capacitated to use the GIS-based DST for land-use planning, climate risk assessment, and ecosystem management.

Output 1.4: Participatory action plan and enforcement strategy for climate change adaptation in the riparian zones of the Steung Siem Reap (SSR) Watershed

132. The Steung Siem Reap (SSR) Watershed has been identified by the Government of Cambodia as a priority area for restoration, rehabilitation, and conservation due to its high levels of degradation, its economic and cultural significance, and its considerable vulnerability to future climate change threats. Working in close coordination with the sub-national planning under the ER-IP project, this output will develop a participatory action plan for climate change adaption under the umbrella of a watershed management plan for the SSR Watershed, supported by enforcement strategies and spatial maps to ensure effective, community-led watershed management that maximise the mutually reinforcing aspects of conservation, local livelihoods, and climate adaptation. Through its prioritisation under both the ER-IP and LDCF projects, the SSR Watershed will serve as a pilot site for nature-based solutions (NbS), co-management strategies, and investment planning, providing a replicable model for scaling successful approaches across Cambodia and regionally. This replication potential will be facilitated by the innovative finance mechanisms under Component 2, the market development and public-private-community partnerships under Component 3, and the knowledge management under Component 4.

133. The project will adopt a stakeholder-driven, multi-sectoral approach to ensure that traditional and customary knowledge is integrated with scientific assessments, ecosystem service valuation, and climate hazard analysis. Extensive stakeholder dialogues will be facilitated through WMCs to document traditional land-use practices, climate vulnerabilities, and local conservation knowledge. This information will be blended with scientific data to develop an inclusive, gender-responsive, and climate-informed management plan. Additionally, a detailed spatial map and zoning framework will be established to support the demarcation, land registration, and governance of conservation, sustainable use, and core protection zones in the SSR Watershed and Phnom Kulen National Park (PKNP). The key deliverable under this output will an updated SSR Watershed Management Plan[51], providing detailed, effective co-management strategies and actions for the nature-based solutions in SSR Watershed, with a great emphasise on the protection of the PKNP.

134. The careful vertical integration of the SSR Watershed Management Plan with national land use policies — along with its positioning under the broader framework of the updated Tonle Sap Basin Restoration, Rehabilitation, and Conservation Plan — will create a long-term governance structure that supports effective enforcement and sustainable watershed management. 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. All activities under this output will be subject to the safeguard screening and associated processed as outlined in the SESA.

Activity 1.4.1: Host extensive stakeholder dialogues to identify traditional/customary and cultural values/knowledge about watershed management, as well as climate hazards and vulnerabilities in the area

135. Recognising the deep historical and cultural ties between local communities and the Steung Siem Reap (SSR) Watershed, the project will conduct extensive stakeholder dialogues to document traditional and customary knowledge related to watershed management, land use, and natural resource governance. These dialogues will engage indigenous groups, community elders,

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

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local farmers, fishers, and religious leaders, ensuring that long-standing conservation practices and traditional water management techniques — such as ancient irrigation systems (*barays*) and forest conservation customs — are incorporated into modern restoration efforts.

136. Additionally, the consultations will map out climate hazards and vulnerabilities, focusing on how local communities perceive and respond to climate change impacts such as erratic rainfall, prolonged droughts, and intensified flooding. This will involve seasonal calendars and local indicators of environmental change, such as shifts in agricultural cycles, forest productivity, and soil conditions. Local WMCs will serve as a central coordinating body for these dialogues, ensuring that diverse community perspectives — including those of women, youth, and marginalised groups — are reflected in future decision-making.

137. By combining scientific assessments with community insights, the project will establish a baseline understanding of the SSR Watershed's socio-ecological landscape, ensuring that conservation and adaptation strategies are locally relevant, culturally appropriate, and socially inclusive.

Activity 1.4.2: Develop detailed, effective co-management strategies and actions for the nature-based solutions in SSR Watershed, with a great emphasis on the protection of the PKNP

138. Building on the stakeholder dialogues and scientific assessments, the project will design co-management strategies that define the roles and responsibilities of local communities, government agencies, and conservation partners in managing and restoring the SSR Watershed and Phnom Kulen National Park (PKNP). This co-management framework will integrate traditional ecological knowledge (TEK) with modern conservation science, ensuring that watershed restoration aligns with local practices and governance structures while addressing climate resilience needs.

139. The strategy will outline specific actions for nature-based solutions (NbS), including:

- riparian reforestation to stabilise riverbanks and improve water retention;
- agroforestry systems that combine drought-resistant crops with tree planting to enhance soil health and diversify livelihoods;
- community-led forest protection initiatives, incorporating patrols and sustainable harvesting guidelines for non-timber forest products (NTFPs); and
- wetland restoration efforts to enhance flood control and biodiversity conservation, particularly targeting areas affected by unsustainable agricultural expansion.

140. A critical focus will be placed on the protection of Phnom Kulen National Park (PKNP), a sacred and ecologically significant area that serves as the headwaters of multiple tributaries feeding into the Tonle Sap Lake. Specific conservation actions will include:

- strengthening park governance through clear enforcement strategies and community stewardship programs;
- introducing conservation incentives, such as eco-tourism revenue-sharing models that encourage local ownership of preservation efforts; and
- establishing collaborative monitoring systems where local rangers, community members, and government authorities jointly oversee protected zones.

141. By aligning conservation with economic incentives, the co-management approach will ensure long-term sustainability, empowering local communities to actively participate in restoration, enforcement, and decision-making while securing their livelihoods and cultural heritage.

Activity 1.4.3: Develop and adopt a detailed spatial map and zoning for SSR and PKNP governance to facilitate demarcation, land registration, and zoning (sustainable use, conservation, and core zones) of community-based ecosystem conservation, restoration, and rehabilitation

142. To support the implementation and enforcement of the SSR Watershed's restoration efforts, the project will co-develop a detailed spatial map and zoning framework that clearly defines areas for conservation, sustainable use, and restoration. This mapping exercise will be informed by:

- remote sensing and GIS analysis to identify existing forest cover, degraded lands, and hydrological features (Activity 1.3.2);
- on-the-ground biodiversity and ecosystem service assessments to determine high-value conservation zones(Activity 1.3.3); and
- community mapping exercises to integrate local land-use practices and historical boundaries (Activity 1.4.1).

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143. The zoning framework will delineate three core zones:
    - Core Protection Zones: Strictly protected areas within PKNP and key riparian corridors, where conservation and ecosystem restoration take precedence.
    - Sustainable Use Zones: Areas designated for regulated agroforestry, community forestry, and low-impact eco-tourism, allowing communities to benefit from ecosystem services while maintaining sustainability.
    - Conservation and Rehabilitation Zones: Degraded lands prioritised for active restoration efforts, such as reforestation, wetland rehabilitation, and soil conservation initiatives.

144. To ensure legal recognition and enforceability, the zoning framework will be aligned with Cambodia's national land-use policies, incorporating formal land registration processes to secure land tenure for communities engaged in conservation activities; collaborative governance models that outline co-management agreements between communities and relevant authorities; and integrated enforcement mechanisms, including community ranger programs, land-use monitoring systems, and financial penalties for illegal deforestation or encroachment.

145. Additionally, the spatial mapping outputs will be integrated into Cambodia's National Spatial Plan, ensuring that the SSR Watershed's conservation efforts are recognised in broader land-use planning frameworks. The zoning framework will also support investment planning, guiding public and private sector engagement in sustainable watershed management initiatives. The final outputs of these plans will underpin on-the-ground investments in integrated watershed management, restoration and conservation under Outcome 2.

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

(Total Cost: US$ 10,329,548; GEF project grant requested: US$ 3,100,744; Co-financing: US$ 6,961,534)

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

146. 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 within the agroecological systems of critical watershed areas. This outcome is central to the project objective of conserving natural and cultural heritage, investing directly in nature-based solutions that enhance ecosystem service provision and reduce the impact of extreme climate events on vulnerable communities. 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. Finally, a blended finance framework will be developed to create a platform for scaling of the approach both locally and across the rest of Cambodia, addressing barrier 2. All outputs under this outcome will be covered by the Environmental and Social Impact Assessment, and of the subsequent Environmental and Social Management Plan.

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

147. 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, based on the ESIA/ESMP. The proposed NbS include direct restoration of 2,174 ha of degraded forest ecosystems as well as riparian zones along 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, a co-benefit contributing to Cambodia's mitigation NDCs. Rehabilitation efforts will centre around local/endemic species with global significance and aimed at mimicking the surrounding habitats. Where possible, restoration efforts will focus on High Conservation Value Areas (HCVAs), aimed at improving habitats and creating biodiversity corridors within different landscape mosaics. Note that the planting densities reflect the targeted overall density after restoration, and the actual number of seedlings required will vary depending on level of degradation at each site. For example, heavily degraded land will be targeted for full active restoration through high-density tree planting, while

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light–moderately degraded land will be targeted for assisted natural regeneration involving lower density planting and increased focus on protection and management. Monocultures will be avoided, instead a diverse range of trees species will be selected, targeting indigenous trees that represent the natural species assemblage. Where possible, preference will be given to species with high value to communities, for example in terms of the provision of non-timber forest products (NTFPs). Planting efforts will prioritise using labour from local communities wherever possible, creating seasonal employment opportunities, including at least 30% women.

148. Direct restoration efforts will be complemented by other NbS, including hybrid solutions for flood control and water storage that will benefit local communities. The project will identify suitable options for low-impact water harvesting ponds that work within the natural ecosystems. This supplementary water supply is considered critical for maintaining supply to farmers in the surrounding landscape during the dry season. Such options may be replicated in other locations, particularly those important to the tourism industry.

149. 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[52]. Implementation will target 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. While target communes have been identified through the baseline studies conducted during project preparation, the detailed spatial map developed for the SSR Watershed Management Plan (Output 1.4) will be used to demarcate specific sites for the on-the-ground implementation of NbS that will build the climate resilience of local communities. For both the NbS and agroforestry, it will be important to ensure resilience of the proposed interventions in the long term. To this end, proposed interventions have been 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 have been selected that demonstrate a level of tolerance to the potential temperature and rainfall regimes of the area.

Implementation

150. Successful forest restoration and the long-term protection of restored areas require collaboration among multiple stakeholders, including relevant authorities at the national, provincial, and local levels, as well as community-based organisations (CBOs) and landholders. The two primary government entities responsible for restoration are: i) the Ministry of Environment (MoE); and ii) the Ministry of Agriculture, Forestry, and Fisheries (MAFF).

151. For reforestation efforts in Zone 6 (Phnom Kulen National Park), MoE will take the lead, specifically through the Siem Reap Provincial Department of Environment (PDoE). Their responsibilities include enforcing environmental protection laws and collaborating with NGOs and CBOs on restoration initiatives. This oversight extends to the community protected areas (CPAs) within the park. As outlined in Section I, there are five CPAs covering 1,715 ha in Khnang Phnum Commune, located in Svay Leu District. Reforestation in Zone 6 will focus on degraded areas within these CPAs. Restoration and ongoing protection in the CPAs will be the joint responsibility of PDoE of Siem Reap Province and the communities residing in the CPAs. The final reforestation and restoration sites will be identified under Output 1.4, with a total of 774 ha of degraded forest targeted for restoration in Zone 6.

152. All reforestation efforts outside of the protected area (PKNP), will fall under the responsibility of MAFF, specifically through the Forestry Administration (FA) of Siem Reap Province. The FA plays a key role in implementing reforestation programmes, promoting sustainable forest management, overseeing forest restoration, and monitoring illegal logging activities within its jurisdiction. Additionally, the FA works within community forests (CFs) in SSR Watershed Zones 4 and 5, ensuring that local communities take ownership of forest protection and restoration efforts. As noted in Section I, there are 19 CFs across the three districts and eight target communes in Zone 4, covering a total of 4,646 ha and one CF in Zone 5 (Peak Snaeng Commune, Angkor Thum District), **covering 207 ha. In total, 20 CFs span 4,853 ha across the project's target communes in Zones 4 and 5.** Reforestation and forest restoration efforts will be focused within these CFs to ensure the long-term protection of restored areas under their jurisdiction.

153. For Activity 2.1.2 — reforestation efforts along riparian zones in Zone 6 (Phnom Kulen National Park) — MoE, through the PDoE, will assume responsibility. In areas where target riparian zones for restoration overlap with CPAs, local communities will actively participate in restoration efforts. All riparian reforestation efforts outside of the protected area (PKNP), will fall under the responsibility of MAFF, specifically through the FA of Siem Reap Province. FA oversight extends to riparian zones outside Zone

52 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.

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6, including CFs in SSR Watershed Zones 4 and 5. Where target riparian zones for restoration overlap with CFs, these communities will actively participate in restoration initiatives.

154. Activity 2.1.3 — pond rehabilitation and installation — will be overseen by the Ministry of Rural Development (MRD), whose mandate includes maintaining and developing irrigation and water supply in rural Cambodia. MRD will procure an engineering firm to conduct the assessments. Based on the assessments, the firm will undertake rehabilitation of existing degraded ponds and establish new ponds.

155. Additional technical details on the restoration for each forest type are provided in Annex 23b.

Activity 2.1.1: Restore 1,574 ha degraded dry deciduous, evergreen, and semi-evergreen forest ecosystems to reduce runoff and erosion, as well as improve the concentration of soil organic carbon

156. Native tree species will be used for restoring degraded forest ecosystems across the upstream regions of the SSR Watershed (Zones 4, 5, and 6) according to the participatory action plans developed under Output 1.4. Three types of forest ecosystems occur across these zones: dry deciduous forests, evergreen and semi-evergreen forests, and riparian forests. The dry deciduous, evergreen and semi-evergreen forests will be targeted for restoration under this activity, with the riparian zones targeted under Activity 2.1.2.

157. The final sites for restoration will be determined under Output 1.4, with a total of 800 ha of degraded forest targeted for restoration in Zones 4 and 5.

Activity 2.1.2: Restore 600 ha of degraded riparian zones along the upper catchment areas of the Siem Reap and Rolous Rivers and their tributaries

158. The riparian zone refers to land directly adjacent to rivers, streams, and other water bodies[53], playing a critical role in protecting water quality, preventing erosion, and maintaining aquatic ecosystems by acting as natural buffers between water bodies and surrounding land uses. Riparian restoration involves re-establishing native vegetation along waterways to stabilise riverbanks, reduce erosion, improve water quality, and enhance habitat connectivity.

159. The final sites for riparian restoration will be determined under Output 1.4, and will be targeted at locations within Zones 4, 5, and 6. A total of 600 ha is targeted for riparian restoration.

160. *Activity 2.1.3: Rehabilitate 11 low-impact rainwater harvesting ponds that provide multiple benefits for ecosystem and agricultural resilience and water security*

161. Although low-impact rainwater harvesting ponds have primarily been established for crop irrigation, livestock watering, and household use, they offer multiple benefits for ecosystem restoration and water security. Extensive deforestation and forest degradation within the SSR Watershed have led to soil degradation and reduced natural water retention. Water harvesting ponds help rehydrate the soil, creating favourable conditions for natural vegetation growth and reforestation. By reducing surface runoff, these ponds help minimise soil erosion, particularly in deforested and sloped areas, preventing further watershed degradation.

162. In terms of climate resilience, these ponds serve as decentralised water storage in a region prone to seasonal droughts, ensuring a steady water supply for agriculture and natural ecosystems during dry periods. Well-designed ponds also promote slow infiltration, replenishing groundwater reserves and mitigating the over-extraction of aquifers. Additionally, by capturing excess rainfall during the wet season, they help reduce downstream flood risk, protecting agricultural land, forested areas, riparian zones, and infrastructure.

163. During project development, 35 existing low-impact rainwater harvesting ponds were identified within the target area. Of these, 11 are in varying states of disrepair and require rehabilitation. Some require minor repairs, primarily involving sediment removal and vegetation clearance to restore water storage capacity. Others need medium-scale rehabilitation, including structural repairs such as embankment reinforcement, lining replacement, or erosion damage repair. In cases where substantial repairs are needed, interventions will include excavation, embankment reconstruction, and improvements to water retention capacity.

53 Cambodian Sub-Decree on Water Pollution Control (1999) and the Law on Water Resources Management of the Kingdom of Cambodia (2007).

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164. Table 7 provides a list of the 11 ponds requiring rehabilitation, along with the estimated level of repair needed for each one. This classification is preliminary and based on the current understanding of pond conditions. Service providers will conduct detailed assessments of each pond to finalise the rehabilitation plan.

Table 7. List of low-impact water harvesting ponds to be rehabilitated under the project

No	District	Commune name	Pond name	Level of restoration needed
1	Angkor Thum	Leang Dai	Trapaeng Krachab	Medium
2	Angkor Thum	Leang Dai	Trapaeng Chue	Minor
3	Angkor Thum	Svay Chek	Trapaeng Kandal	Substantial
4	Angkor Thum	Svay Chek	Trapaeng Tkov	Medium
5	Banteay Srei	Rumchek	Taneav	Minor
6	Banteay Srei	Tbaeng	Doun Reak	Substantial
7	Svay Leu	Khnang Phnum	Tomnob Srae	Medium
8	Svay Leu	Khnang Phnum	Tomnob Tapenh	Substantial
9	Varin	Prasat	Trapaeng Vien	Medium
10	Varin	Srae Nouy	Boeng Tatab	Substantial
11	Varin	Srae Nouy	Tomnop Kork Srok	Minor

165. In addition to rehabilitating the 11 degraded ponds, based on field observations and consultations with local authorities and community members, several communes have been identified as priority areas for new rainwater harvesting pond construction to address water shortages and improve water security where existing water resources are insufficient. The ponds will be used for crop and agroforestry irrigation, household use, and livestock watering.

166. **Table** 8 is a list of communes identified as priority areas for installing new low-impact rainwater harvesting ponds.

Table 8. List of new low-impact water harvesting ponds to be established under the project.

	District	Commune name	Recommended no of new ponds
1	Banteay Srei	Khun Ream	2
2	Soutr Nikom	Chan Sar	2
3	Soutr Nikom	Khnar Pou	1
4	Soutr Nikom	Popel	1
5	Soutr Nikom	Ta Yaek	1
6	Banteay Srei	Run Ta Aek	1

167. A full assessment will be conducted to determine the location and requirements for the new ponds and will include the following site selection criteria:

- High demand for water (agriculture, livestock, household use);
- Lack of existing functional ponds within reasonable proximity;
- Suitable land availability with community or public land ownership;
- Technical feasibility (e.g., appropriate topography, soil type, water catchment potential);
- Community interest and willingness to participate in maintenance;
- Strategic locations to support vulnerable households and improve climate resilience.

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

168. The implementation of NbS will be further supported through the introduction of 3,000 ha of community-based agroforestry to supplement restoration efforts in the agroecological landscape of the SSR Watershed. This intervention aims to restore ecological functions in areas where forest cover has been lost to agriculture, by integrating high-value and multi-purpose tree

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species into existing farming systems. The approach enhances key ecosystem services — such as water regulation, soil stability, enhanced water infiltration, and biodiversity conservation — while supporting sustainable agricultural productivity and climate resilience. This improves groundwater recharge, ensuring more consistent water availability for both crops and local communities. These benefits have been recognised by farmers in the SSR watershed who have trialled agroforestry practices.

169. Farmers face several challenges related to tree production, including limited knowledge of best agroforestry practices, pest and disease outbreaks, unpredictable weather conditions, and water scarcity. Poor soil quality in certain areas reduces tree growth rates, requiring additional soil enrichment techniques. Market access issues also discourage some farmers from investing in agroforestry, as they struggle to sell timber, fruits, or nuts at competitive prices. Additionally, land tenure insecurity in some target locations prevents farmers from making long-term investments in tree cultivation.

170. The project will support farmers by providing technical training on agroforestry management, including best practices for tree planting, pruning, soil improvement, and pest control. 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). Technical support will be provided to local farmers on suitable agroforestry practices, along with the provision of seedlings and other required inputs.

171. The implementation of agroforestry will be further supported through several other activities under the project including: i) the establishment of community nurseries (Activity 3.3.1) to improve access to high-quality tree seedlings; ii) rehabilitation of rainwater harvesting ponds (Activity 2.1.3) to help manage water shortages and enable sustained irrigation; and iii) advisory services on market access, which will include the formation of cooperative structures, enabling farmers to benefit from economies of scale. The inclusion of women not only in agroforestry activities themselves, but in capacity development across the value chain, will ensure that this output is gender responsive, directly building the resilience of vulnerable women in rural communities. The scaling of agroforestry practices across the TSB and further abroad will be further supported by redirecting government programmes where possible, as well as scaling through future donor projects. The potential for scaling will also be further enabled by the innovative finance mechanisms developed under Output 2.3, as well as the knowledge and learning systems developed under Outcome 4.

Activity 2.2.1: Establish agroforestry demonstration sites in underserved communes

172. The project will establish six agroforestry demonstration sites to serve as practical learning environments for training sessions. Sites selection will be based on both farmer and plot attributes. Farmer attributes include: i) land tenure security; ii) prior experience with agroforestry practices; iii) openness and willingness to adopt new climate-resilient techniques. Farmers who are already active in agricultural associations or cooperatives will be targeted to benefit from existing relationships with other farmers in their communities and leverage the engagement opportunities that cooperatives offer. Efforts will be made to ensure that at least half (three) female farmers are selected to host a demonstration plot.

173. Plot attributes include: i) two plots in each target commune — Svay Chek in Angkor Thum District, Khun Ream in Banteay Srei District, and Prasat in Varin District; ii) representation of local agroecological conditions and farming practices to ensure that the knowledge and skills gained are directly transferable to participating farmers; iii) proximity to essential infrastructure, such as transportation routes, water sources (for irrigation demonstrations), and access to inputs like tree seedlings, crop seeds, and organic fertilisers, to minimise logistical challenges and facilitate smooth training sessions; iv) accessibility to facilities and amenities for conducting theoretical sessions, including bathroom facilities and refreshments; and v) long-term use potential, allowing the sites to evolve into permanent demonstration farms or resource centres, providing ongoing benefits to the wider community. For Prasat Commune in Varin District, the plots will be established in the portion of the commune falling withing the SSR Watershed.

Activity 2.2.2: Host an awareness campaign for local farmers in the SSR Watershed to promote community-based agroforestry

174. Raising awareness is a critical step in promoting agroforestry in Cambodia. The recently approved ER-IP project includes an awareness-raising component involving travelling roadshows, and online and printed media initiatives. Under the LDCF project, the awareness campaign will be further expanded to include several complementary systems, including radio broadcasts and social media to promote the principles and benefits of agroforestry, while incorporating real-time input and feedback from participating farmers implementing sustainable climate-resilient agroforestry practices. The design of the campaign will

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specifically consider the different ways in which men and women interact with various media, ensuring that the resulting campaign is fully gender inclusive.

175. Both the radio and social media components will facilitate two-way communication, enabling stakeholders to provide insights and feedback on agroforestry interventions. The radio campaign will include call-in shows, allowing listeners to share their opinions, ask questions, and engage with hosts and guest speakers. Meanwhile, social media engagement will feature interactive content such as polls, surveys, and live streams. Dedicated group pages will also be created to foster discussions, share information, and strengthen community participation in the campaign.

176. For the radio campaign, three stations operating in the TSB region will be targeted[54]. The campaign will involve: i) developing and recording content; ii) engaging with national and provincial authorities in environment and agriculture (MoE and MAFF) for content validation; iii) broadcasting on the selected stations; iv) hosting weekly call-in shows; and v) conducting live radio discussions.

177. **The social media campaign will target** Cambodia's **most popular platforms, for example Facebook, Instagram, TikTok, Telegram,** WhatsApp, and CoolApp. Its development will involve: i) creating engaging content; ii) validating content with MoE and MAFF at national and provincial levels; and iii) establishing monitoring and response mechanisms to track engagement and address feedback effectively.

Activity 2.2.3: Provide technical support to local farmers on suitable agroforestry practices, including providing seedlings and other required inputs

178. Agroforestry training workshops will combine theoretical training with field visits to the demonstration sites, providing farmers (at least 50% women) with both conceptual knowledge and practical experience. The training will cover: i) fundamental principles of agroforestry and identification of suitable agroforestry practices for the target area; ii) accessing finance for agroforestry inputs; iii) intercropping strategies and other measures to generate income during the initial period before trees reach maturity; iv) harvesting and processing of NTFPs; and v) expanding market access for NTFPs. Each participant will receive a manual for reference after the training, ensuring they have clear guidelines for implementing and monitoring agroforestry practices. Additional details on the training modality and content are provided in Annex 23.b.

179. Following the technical training, farmers will receive inputs to initiate sustainable, climate-resilient agroforestry practices on their plots. These inputs will include suitable tree seedlings, crop seeds, organic fertiliser, and essential tools. Assuming an average cultivated area of 1.5 ha per household[55], the total target area for agroforestry across the three communes is approximately 3,000 ha. Initial support will be followed by annual field visits by extension officers to provide hands-on support, monitor progress, and troubleshoot challenges.

180. The workshops will be scheduled to maximise participation from all community members, including women. Priority will be given to women-headed households and women farmers in the first year to address gender-specific challenges in agroforestry adoption. **In addition, extension officers will actively engage with women's groups across the three communes to foster** peer support, knowledge exchange, and collective problem-solving. Throughout implementation, extension officers will document successes, challenges, lessons learnt, and best practices to enhance knowledge sharing and inform adaptive management strategies, ensuring continuous improvement and long-term sustainability.

Activity 2.2.4: Knowledge exchange through open days for farmers and extension service providers from across TSB, enabling the replication of agroforestry practices

181. In addition to the training provided for local farmers under Activity 2.2.3, the project will facilitate knowledge exchange for farmers and extension service providers across the broader TSB community through a series of open days at the demonstration sites, totalling 10 open days.

182. Each open day will consist of four key components. First, participants will attend a lecture outlining the benefits of agroforestry. This will be followed by a presentation from the host farmer, who will share their personal experience in adopting agroforestry practices. Next, attendees will have the opportunity to engage in discussions and ask questions. Afterward, they will visit to the

54 These could include Tonle FM Siem Reap (102.5 FM) and VAYO FM Siem Reap (88 FM).
55 Kingdom of Cambodia. Cambodia Agriculture Survey 2020 (CAS2020): Final Report. National Institute of Statistics, Ministry of Planning, in collaboration with Ministry of Agriculture, Forestry and Fisheries.

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demonstration site, where the host farmer will showcase various agroforestry techniques in practice. The visit will conclude with a final Q&A session for further discussion and clarification.

183. These open days will serve as a platform to disseminate knowledge gained from the implementation areas, ensuring that the broader TSB farming community benefits from improved agroforestry practices.

Activity 2.2.5: Provide advocacy support and recommendations to redirect government programmes towards the scaling of agroforestry practices across the TSB as well as other catchments within the country

184. To promote the widespread adoption of sustainable, climate-resilient agroforestry, this activity will provide advocacy support and strategic recommendations to redirect government programmes toward scaling agroforestry practices across the TSB and other catchments in Cambodia. The initiative will be guided by a robust evidence base demonstrating the economic, environmental, and social benefits of agroforestry investments.

185. A consultancy will be procured to conduct a comprehensive assessment and develop a compelling economic case for sustainable, climate-resilient agroforestry. This assessment will quantify the long-term financial returns for farmers, cost savings for government, and ecosystem service benefits — particularly improvements in water regulation, soil health, and carbon sequestration. The consultant will engage with key stakeholders, including government agencies, research institutions, and farmer organisations, to gather data and ensure alignment with national priorities.

186. Following the assessment, the expert will draft a report outlining policy recommendations and investment strategies for scaling agroforestry. The findings will be presented to the Cambodian Government in a high-level advocacy event, where the consultant will provide evidence-based arguments to support increased public funding for agroforestry expansion. The engagement will **emphasise agroforestry's role in enhancing agricultural productivity, climate resilience, and rural livelihoods, reinforcing** its alignment **with Cambodia's national development and climate adaptation goals.**

Output 2.3: Sustainable financing mechanism established and operational within the SSR Watershed to promote public-private-community partnership investments and support long-term financing of community-led NbS initiatives

187. 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 mobilise resources for ongoing investment in climate-responsive watershed management, prioritising the wide-scale implementation of 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 mechanism will be composed of two elements — those that finance ongoing restoration and those that incentivise the uptake of sustainable livelihoods practices — integrated under a single blended finance mechanism. This process will leverage the enabling environment created under Outcome 1 of both this project and the ER-IP project to engage with the diverse range of necessary stakeholders to achieve the project objectives.

188. Given the close ties between biodiversity, natural capital and climate change adaptation, Output 2.3 will adopt a blended finance approach, drawing resources from different sources[56] to meet the complementary objectives of biodiversity, land degradation and climate adaptation, while ensuring that mechanisms are coordinated and avoiding overlap. Blended finance has been identified as an effective approach for scaling sustainable watershed management by strategically combining public, private, and climate finance to mobilise greater investment while reducing financial risk for private sector participation. By using public funds to create enabling conditions—such as policy support, capacity building, and initial restoration efforts—the approach attracts private investment that might otherwise be deterred by high upfront costs or uncertain returns. Additionally, by integrating biodiversity finance, payment for ecosystem services, and corporate sustainability contributions, blended finance ensures long-term financial sustainability while aligning conservation efforts with economic incentives, ultimately driving scalable and impactful climate resilience solutions. The project will undertake a structured process to identify and develop pathways for a blended finance mechanism that can sustainably fund watershed management at the landscape scale. As the central pillar of the Cambodian economy, the private sector will be a key stakeholder in any sustainable finance mechanism, and will be closely engaged throughout the development process to identify opportunities for partnership and investment. To this end, the final framework will incorporate various financial models being developed in Cambodia, including the payment for ecosystem services model under the ER-IP project, and as well as innovative new mechanisms to be developed under this project

[56] Including potentially accessing voluntary carbon markets

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(discussed below). Specific focus will be given to inclusive access, ensuring that the resulting mechanisms are accessible to, or at least benefitting the most vulnerable groups.

189. As part of this sustainable finance mechanism, the uptake of resilient practices will be incentivised through the introduction of complementary finance mechanisms specifically targeting the sustainability and scaling potential of agriculture- and natural resource-based enterprises. 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. 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, the project will provide a framework 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.

190. Key to this output is the establishment of a Sustainable Livelihood Innovation Facility (SLIF) to bolster the long-term sustainability and scaling of enterprises in key sectors — including agroforestry, non-timber forest products (NTFPs), crafts, ecotourism, and sustainable agricultural products — within rural Cambodia. Under the SLIF, MoE will put out a call for proposals for innovative initiatives that unlock local investment potential while using donor funds solely as catalytic support over a three-year implementation phase, after which project support is phased out. This approach leverages donor funds as an initial catalyst for innovation rather than a permanent subsidy and fosters local capacity through community-led financial instruments, ensuring the sustainability of the enterprises supported.

191. The SLIF call for proposals will target innovative proposals that:

- leverage partnerships between private investors and rural communities (as well as public sector actors where suitable) to drive investment that directly strengthen community livelihood resilience;
- unlock or crowd in additional finance by establishing partnerships with finance institutions, attracting private capital, or establishing revolving fund mechanisms;
- are gender responsive and improve access to finance for women and other vulnerable groups;
- include mechanisms for providing technical assistance and training for communities to engage in private partnerships;
- incorporate a strong monitoring component and opportunities for performance-based incentives;
- have potential to link with or incorporate digital technologies and/or are complementary with NbS approaches; and
- provide cofinance, including potential investment from other donors or direct in-kind support for TA activities.

192. All proposals should also include a clear exit strategy for creating self-sustaining enterprises, with project funds primarily going to community development. During the preparation of the proposal, several potential instruments were identified through stakeholder engagements. While the call for proposals will include scope for innovation, preliminary options include matching grants with a phased exit strategy; credit saving groups and revolving funds; and mini trust funds for conservation enterprises.

193. 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 financial mechanisms considers specific exit strategies for the project, ensuring that the proposed mechanisms 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[57]. 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 sustainable development in Cambodia will not be fully realised.

194. The actions under this initiative will coordinate closely with the efforts through the project under the ER-IP project 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

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

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by the end of year four of the project, accompanied by strong monitoring, evaluation and learning systems (Component 5), building on the knowledge management systems developed under Component 4.

Activity 2.3.1: Conduct a comprehensive assessment of potential funding sources, including public budgets, private sector investments, biodiversity finance, and climate finance.

195. The process will begin with a comprehensive assessment of potential funding sources by an international expert in innovative finance, including public budgets, private sector investments, biodiversity finance, and climate finance. This assessment will include a meta-analysis of previous investigations into the feasibility of various finance instruments in Cambodia, consolidating results to create a foundation for a blended finance mechanism. Through stakeholder consultations and financial flow analysis, the project will also map out existing investments in watershed management and identify opportunities to leverage and align these resources.

Activity 2.3.2: Organise multi-stakeholder roundtables and policy dialogues

196. This activity will convene a series of multi-stakeholder roundtables and policy dialogues tailored to the Cambodian financial and policy landscape. The dialogues will bring together key actors including government agencies (such as the MEF, MoWRAM, MAFF, and MoE), representatives from local communities and farmer groups, private sector investors, financial institutions, and international development partners. The goal is to discuss the design of innovative finance mechanisms and to align diverse financing instruments — such as matching grants, PES schemes, and credit saving groups — with national priorities for climate resilience and sustainable agriculture. Special emphasis will be placed on ensuring gender equality and inclusivity, ensuring that women and marginalised groups are not only represented but also benefit equitably from new financing avenues. These roundtables will also facilitate knowledge exchange on successful case studies from within Cambodia and comparable regions in Southeast Asia, identify regulatory and policy bottlenecks, and build consensus on the structure of public-private-community partnerships (PPCPs). The outcomes of these dialogues will include detailed recommendations and a roadmap for institutionalising innovative finance mechanisms in the national financial system, thereby enhancing investor confidence and laying the groundwork for sustainable, long-term impact.

Activity 2.3.3: Develop a finance facility for sustainable enterprise growth and innovation

197. This activity will establish a Sustainable Livelihood Innovation Facility (SLIF) to bolster the long-term sustainability and scaling of enterprises in key sectors — including agroforestry, non-timber forest products (NTFPs), crafts, ecotourism, and sustainable agricultural products — within rural Cambodia. Under the SLIF, MoE will put out a call for proposals for innovative initiatives that unlock local investment potential while using donor funds solely as catalytic support over a three-year implementation phase, after which project support is phased out. This approach leverages donor funds as an initial catalyst for innovation rather than a permanent subsidy and fosters local capacity through community-led financial instruments, ensuring the sustainability of the enterprises supported.

198. The SLIF call for proposals will target innovative proposals that:

- leverage partnerships between private investors and rural communities (as well as public sector actors where suitable) to drive investment that directly strengthen community livelihood resilience;
- unlock or crowd in additional finance by establishing partnerships with finance institutions, attracting private capital, or establishing revolving fund mechanisms;
- are gender responsive and improve access to finance for women and other vulnerable groups;
- include mechanisms for providing technical assistance and training for communities to engage in private partnerships;
- incorporate a strong monitoring component and opportunities for performance-based incentives;
- have potential to link with or incorporate digital technologies and/or are complementary with NbS approaches; and
- provide cofinance, including potential investment from other donors or direct in-kind support for TA activities.

199. All proposals should also include a clear exit strategy for creating self-sustaining enterprises, with project funds primarily going to community development. During the preparation of the proposal, several potential instruments were identified through stakeholder engagements. While the call for proposals will include scope for innovation, preliminary options include:

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- **Matching grants with a phased exit strategy:** Matching grants could be offered to cover 30–40% of an enterprise's initial business plan costs. These grants would serve as seed capital to reduce risk and attract private and community investment. They would be structured with clear performance metrics and a defined exit timeline — within three years, as enterprises demonstrate financial viability, donor funds will gradually be replaced by reinvested profits, access to commercial credit, or revenue from market linkages. This ensures that once the grant phase concludes, enterprises are fully self-sustaining.
- **Credit saving groups and revolving funds:** Community-based credit saving groups could be established to pool savings from local entrepreneurs and provide low-interest loans for day-to-day operations, business expansion, and investments in climate-resilient practices. Over time, these groups would be expected to evolve into revolving funds, where repayments are reinvested to support new or existing members. This model creates a continuous, self-sustaining cycle of finance that reduces dependency on external donor funding.
- **Mini trust funds for conservation enterprises:** Mini trust funds could be set up for community-based enterprises involved in conservation-related activities, such as agroforestry and ecotourism. A seed grant ($5,000–$10,000) could be deposited in a dedicated trust account at a commercial bank, with only the interest accessible for operational expenses related to conservation or capacity building. The principal remains intact as a long-term asset. After the three-year grant period, these funds will be transitioned to management by local cooperatives or or CBOs, ensuring ongoing support and local ownership.

200. The SLIF will be operated according to the existing Operation Manual of the General Secretariat for the National Council for Sustainable Development (GSSD) which was later addressed as General Department of Policy and Strategy (GDPS) of MoE following sub-degree in 2021. During implementation, a detailed set of eligibility criteria will be developed, building on several foundation concepts described above and in line with Cambodia's "Grant-Innovation Facility Grant Application Guidelines". The MoE will perform an administrative and technical review of initial concepts, ranking all proposals according to the eligibility criteria, as well as the capacity of the applicant and compliance with the application process. Based on this assessment, MoE will shortlist top-ranking applicants to further develop their proposal — considering a ceiling of the total allocation of $210,000.

201. The final selection of winning proposals will be done based on a more detailed technical and administrative review of the full proposals by the MoE (with technical input from the multi-stakeholder steering committee established under Output 2.3). A list of recommended proposals will be provided to the Project Board for final approved and award. To ensure accountability, transparency, and long-term sustainability, the operation of the SLIF will be embedded within the project's robust governance structures. The establishment of the blended finance mechanism under Output 2.3 will include provisions for the establishment of a multi-stakeholder steering committee comprising representatives from the national and provincial government, community leaders, private investors, and development partners. This committee will also oversee the design of the eligibility criteria and the selection of proposals, as well as monitoring the performance of selected proposals — establishing performance benchmarks and ensuring that gender and social inclusion criteria are consistently met. Detailed operational guidelines, reporting requirements, and risk-sharing protocols will be developed to facilitate adaptive management and the gradual phase-out of donor support over the three-year period. Ultimately, these complementary finance mechanisms will empower agriculture- and natural resource-based enterprises in Cambodia to scale up sustainable practices and drive long-term economic and environmental resilience.

Activity 2.3.4: Design a blended finance framework for climate-responsive watershed management in the TSB

202. Drawing on the outcomes of the assessment in 2.3.1, the project will develop a framework for an integrated blended finance mechanism that mobilises diverse funding streams while ensuring alignment with national policies and international climate and biodiversity commitments. A core focus of the framework will be the strategic role of public finance in unlocking private sector investments. Government funding, including budget allocations and international climate finance, will be positioned to de-risk private participation by supporting enabling conditions such as policy reform, capacity building, and initial restoration investments. The framework will outline innovative financial instruments such as conservation impact funds, green bonds, and results-based financing mechanisms that can attract private sector contributions. Additionally, it will explore integration of the payment for ecosystem services (PES) scheme under development through the ER-IP initiative into the blended finance mechanism, as well as the livelihood investment mechanisms under Output 3.4 below. The framework will also assess opportunities to integrate biodiversity finance initiatives and corporate sustainability commitments into watershed management investments. MoE will take a lead role in developing the framework, taking ownership of the blended finance mechanism after the project in collaboration with Ministry of Economy and Finance.

Activity 2.3.5: Develop a policy and institutional framework for sustainable finance mechanisms

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203. This activity focuses on transforming the insights from the pilot and stakeholder dialogues into a formalised policy and institutional framework that institutionalises innovative finance mechanisms in Cambodia. In collaboration with national authorities and financial regulators, the project will draft policy guidelines and legal frameworks that streamline budgetary flows, create incentives for private and community-based investments, and integrate international climate and biodiversity funds into local financing schemes. The framework will detail roles and responsibilities for government agencies, private financial institutions, and community organisations, establishing robust governance structures that ensure transparency, accountability, and efficient fund management. It will also address risk-sharing arrangements, performance-based disbursement models, and exit strategies that ensure the mechanisms become self-sustaining once donor support diminishes. In the Cambodian context, this framework will consider local challenges such as limited access to formal finance in rural areas, land tenure complexities, and the need for capacity building among smallholder farmers and community-based enterprises. The resulting framework will be designed to align with broader **national objectives, including Cambodia's target of achieving upper middle**-income status by 2030, while ensuring that investments in nature-based solutions yield measurable social, environmental, and economic benefits.

Activity 2.3.6: Develop an implementation roadmap for opertionalising a blended finance mechanism in the SSR Watershed

To ensure effective fund allocation, transparency, and long-term sustainability, a roadmap will be developed for operationalising the blended finance mechanism, starting in the targeted SSR watershed. This will include recommendations for a governance and management structure that oversees the blended finance mechanism. This will encompass clear accountability measures, performance-based disbursement models, and mechanisms for tracking impact. Institutional roles and responsibilities will be defined to facilitate coordination between government agencies, financial institutions, private investors, and local communities. By integrating capacity-building efforts and knowledge-sharing platforms, the project will ensure that the proposed finance mechanism is scalable and adaptable, suppo rting long-term investments in nature-based solutions and resilience-building across the Tonle Sap Basin.

Component 3: Resilient natural resource-based livelihoods

(Total Cost: US$ 5,411,828; GEF project grant requested: US$ 1,607,994; Co-financing: US$ US$ 3,608,225)

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

204. A key element of the proposed approach lies in the third pillar: *people*. Ultimately, the project aims to build the resilience of local communities while conserving the natural and cultural heritage that underpin local societies. To achieve this, it is essential that people remain at the core of all aspects of project design. Under Component 3, the project will support communities in strengthening the resilience of natural resource-based livelihoods while also developing associated value chains and markets. This approach will incentivise the adoption of improved, climate-resilient practices — particularly for women and other vulnerable groups. Furthermore, livelihood development will enhance the impact of nature-based solutions under Component 2 by disrupting the current cycles of degradation in the TSB and improving ecosystem service provision — an outcome that would not be possible without the catalytic funding provided by the proposed project. Similarly, the sustainability and scaling potential of livelihood activities will be strengthened by the blended finance mechanism under Component 2, together with the complementary Sustainable Livelihood Innovation Facility under Output 3.4 of this component. All outputs under this outcome will be subject to the Environmental and Social Impact Assessment and of the subsequent Environmental and Social Management Plan.

Output 3.1: Smallholder farmers trained in climate-resilient agricultural practices that improve productivity under water-stressed and flood-prone conditions

205. Under this Output, the project will train vulnerable smallholder farmers in climate-resilient agricultural practices to safeguard agricultural productivity under future climate conditions. This will include conservation agriculture techniques that improve soil health, reduce erosion and runoff, and conserve water — such as reduced tillage, mulching, intercropping, and crop rotation. To further support these practices, the project will promote the use of flood- and drought-tolerant crop varieties, selected based on local and seasonal risks, as well as crop diversification. Diversifying crops will help farmers mitigate the risk of crop loss, improve soil fertility, and ensure a stable and varied supply of food and income. Additionally, farmers will receive training on using seasonal forecasts and agricultural advisories produced by MoWRAM, enabling them to make informed decisions about crop selection and planting time each season. This initiative will be closely coordinated with the GCF-funded PEARL project,

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which promotes 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.

The proposed project will focus on food-producing crops and trees. **Table 9** summarises the population and farming demographics of each of the target communes. Assuming each farmer in the target area has 1.5 ha of agricultural land for cultivation, there are approximately 37,500 ha of agricultural land in the target area. The project is targeting 20,000 ha of agricultural land, resulting in the participation of approximately 13,350 farmers (50% women). The 13,350 farmers selected for participation will be those who have neither previously received nor are currently receiving support from other CRA initiatives, such as the GCF PEARL project.

Table 9. *Summary of households and farming plots in the target communes*

No	District	Commune name	Commune population	Population with access to agricultural land (72%)	Est. number of households/ farmers[58]	Est. area of cropland (ha)[59]
1	Angkor Thum	Chob Ta Trav	4,236	3,050	726	1,089
		Leang Dai	11,564	8,326	1,982	2,974
		Peak Snaeng	6,316	4,548	1,083	1,624
		Svay Chek	7,038	5,067	1,207	1,810
2	Banteay Srei	Khnar Sanday	8,262	5,949	1,416	2,125
		Khun Ream	7,374	5,309	1,264	1,896
		Preah Dak	8,952	6,445	1,535	2,302
		Rumchek	3,238	2,331	555	833
		Run Ta Aek	7,497	5,398	1,285	1,928
		Tbaeng	8,415	6,059	1,443	2,164
3	Soutr Nikom	Chan Sar	10,364	7,462	1,777	2,665
		Khnar Pou	6,205	4,468	1,064	1,596
		Popel	11,681	8,410	2,002	3,004
		Ta Yaek	13,806	9,940	2,367	3,550
4	Svay Leu	Khnang Phnum	4,711	3,392	808	1,211
5	Varin	Prasat	5,384	3,876	923	1,384
		Srae Nouy	20,749	14,939	3,557	5,335
			145,792	**104,970**	**24,993**	**37,489**
	Project target (as a subset of the available land)				**~13,350**	**20,000**

206. Training for smallholder farmers will follow the Farmer Field School (FFS) model, which emphasises experiential learning through hands-on demonstrations and interactive group sessions. The training will be structured as a cascading capacity-building approach consisting of three phases. Phase 1 involves capacity building for government extension officers, followed by training for lead farmers in Phase 2, and training for follower farmers in Phase 3.

Implementation

207. The Siem Reap Provincial Department of Agriculture, Forestry, and Fishery (PDAFF) is responsible for coordinating agricultural activities, including agricultural training, within its jurisdiction. In addition to overseeing the Agricultural Extension Office, PDAFF deploys agricultural extension workers across all communes in the province. As a result, PDAFF will serve as the primary implementing partner for this activity.

208. A key advantage of engaging PDAFF in training is its ability to integrate capacity-building efforts into existing government programmes, ensuring long-term sustainability through public service systems. However, PDAFF extension officers face

58 Assuming rural household size is 4.2 and assuming one farmer per household (Final General Population Census 2019).
59 Kingdom of Cambodia. Cambodia Agriculture Survey 2020 (CAS2020): Final Report. National Institute of Statistics, Ministry of Planning, in collaboration with Ministry of Agriculture, Forestry and Fisheries.

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significant challenges, including limited technical expertise in CRA and insufficient resources and operational budgets, which restrict regular field support.

209. Beyond government services, several local NGOs in Siem Reap Province provide agricultural extension and advisory services, including Agrisud International, GRET, Green Farmer Siem Reap (GFS), and Trailblazer Cambodia Organisation (TCO). These organisations specialise in sustainable agroecological agriculture practices, farmer capacity building, local value chain development, and agricultural cooperative formation. They have strong expertise in agroecology and community-based approaches, as well as proven experience in delivering hands-on training and fostering strong relationships with local farmer groups. However, their geographic coverage is often limited to specific project areas, and their funding is typically project-based, leading to interventions over shorter timeframes. Additionally, coordination with government systems varies across projects.

210. Given the strengths and limitations of both government and NGO actors, this project will adopt a hybrid approach that leverages the complimentary roles of each. PDAFF and commune extension workers will serve as the institutional leads, ensuring alignment with national policies, government ownership, and long-term sustainability. NGOs will act as technical partners, providing specialised training based on their experience in agroecology, farmer mobilisation, and hands-on demonstration activities.

211. The combined model ensures that government extension workers are empowered and better equipped to deliver CRA extension services across all communes. NGOs play a critical role in the early phases, contributing their technical expertise and community engagement skills. Over time, as government personnel become more proficient, farmer support will transition to a more sustainable model, with trained extension officers continuing services beyond the project lifecycle.

212. Additional experts may be engaged for specific tasks. For example, CARDI, a leading research institution specialising in climate-resilient rice and crop varieties, will provide advisory services on selecting climate-resilient seeds for demonstration plots and deliver specialised training on their benefits and use. MoWRAM will facilitate training on the application of seasonal forecasts and agricultural advisories.

Activity 3.1.1: Establish demonstration plots to showcase climate-resilient agriculture practices and technologies

213. To support all stages of capacity building, five demonstration plots will be established as the practical learning sites for training sessions. The plots will showcase the recommended CRA techniques and technologies under real-world conditions, allowing participants to observe and engage in their application. Site selection will be based on both farmer attributes and plot characteristics to ensure the effectiveness of demonstrations.

214. Since lead farmers serve as role models and knowledge disseminators, key selection criteria for the principal lead farmers include: i) one smallholder farmer in each of the five target districts; ii) strong leadership qualities and community respect; ii) preference for farmers already integrating at least one CRA practice; and iii) if not currently practicing CRA, an openness to adoption and long-term sustainability. Farmers already active in agricultural associations or cooperatives would be well suited for this role. At least two of the five selected principal lead farmers will be women farmers to promote gender inclusivity.

215. Plot attributes include: i) one plot in each of the five target districts (Angkor Thum, Banteay Srei, Soutr Nikom, Svay Leu, and Varin) within the SSR watershed; ii) representation of local agroecological conditions and farming practices to ensure knowledge transferability; iii) proximity to essential infrastructure, such as transportation routes, water sources (for irrigation demonstrations), and input supply points (for example, climate-resilient crop seeds, tree seedlings, organic fertilisers, and biopesticides); iv) accessibility to nearby facilities for theoretical sessions, including bathrooms and refreshment areas; and v) long-term potential, allowing the sites to evolve into a permanent demonstration farms or resource centres, providing ongoing benefits to the wider community beyond the project duration.

216. Once the formal agreements with the principal lead farmers are finalised, a baseline assessment will be conducted to evaluate soil quality and fertility, existing farming practices and productivity levels, and climate-related vulnerabilities affecting yields. The plot layouts will then be designed in collaboration with principal lead farmers to integrate CRA practices and technologies that address site-specific climate challenges such as water scarcity, soil erosion, and pest invasions.

Activity 3.1.2: Train government extension officers on climate-resilient agricultural practices and technologies to safeguard productivity under a changing climate

217. The cascading capacity building programme, using the training of trainers (ToT) approach, will begin with a workshop for 50 government extension officers, combining theoretical lessons with hands-on field demonstrations. During the theory lessons, participants will be introduced to the fundamental principles of CRA, including water and soil conservation techniques.

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Suggested focal themes include: i) the impacts of climate change on agriculture; ii) the impacts of unsustainable agriculture on ecosystems and ecosystem services; iii) soil testing and land assessment; iv) composting (organic fertiliser preparation) and mulching; v) crop diversification, including crop rotation and intercropping; vi) use of climate-resilient seeds; vii) agroforestry; viii) integrated pest management (IPM); ix) efficient irrigation systems and water conservation techniques, and x) access and use of seasonal forecasts and agricultural advisories. Training on agricultural advisories will build on the foundational work of the GCF PEARL project, which is strengthening Cambodia's agrometeorological data collection and processing capabilities, improving the production and dissemination of advisory services, and increasing awareness of the benefits of agrometeorological services for farm management.

218. Theory lessons will be complemented by practical application at the demonstration plots, ensuring that participants understand the challenges specific to each district. These field exercises are a key aspect of the FFS model, enabling participants to gain confidence in implementing the techniques and providing them with real-time feedback on their application of the methods. A dedicated training session on farmer engagement strategies and training-of-trainers (ToT) techniques will be included to prepare officers for the next phase of capacity building. The workshop will be facilitated by selected NGOs active in the TSB, leveraging their expertise in sustainable agriculture, agroecology, and community-based approaches. For the session on climate-resilient seeds, seed producers and distributors identified under Activity 3.1.2 will educate officers about the benefits of climate-resilient varieties and inform them where farmers can access seeds for both staple crops and cash crops. After the initial workshop, government extension officers will continue their training through field visits to lead farmers. Each officer will be accompanied by a technical expert from one of the selected NGOs during at least one field visit, ensuring ongoing guidance and mentorship.

Activity 3.1.3: Train vulnerable smallholder farmers on climate-resilient agricultural practices and technologies to safeguard productivity under a changing climate

219. For Phase 2 of the cascading capacity building programme, the project will use a training of trainers approach for lead farmers in each of the target district. Assuming one lead farmer can support approximately 40 follower farmers, around 330 farmers will be selected as lead farmers across the five target districts within the SSR Watershed, in addition to the five principal lead farmers already identified (see Activity 3.1.1). The selection criteria will remain the same as those used for the principal lead farmers, ensuring that at least half (165) are women farmers.

220. Following the selection of lead farmers, 12 capacity-building workshops will be conducted across the demonstration sites — with a maximum of 30 participants per workshop. Each 4-day workshop will combine theoretical sessions with hands-on field demonstrations, ensuring lead farmers thoroughly understand CRA practices and technologies, as well as access and use of seasonal forecasts and agricultural advisories, and can confidently apply them. The workshops will be scheduled to maximise participation, particularly among women farmers. To ensure accessibility, sessions will not be held during critical agricultural periods such as planting and harvesting, or in the evenings when women are typically engaged in domestic and caregiving responsibilities. Government extension officers, trained in Phase 1, will facilitate the workshops, with technical support from selected NGOs. Additionally, an online CRA training manual will be developed and made available on the Chamka App and other relevant online platforms. The manual will include information on seed distributor contacts, ensuring farmers have access to verified information on where and how to purchase certified climate-resilient seeds. All lead farmers will be assisted in registering onto the App, enabling them to continuously refer to the CRA guidelines when implementing and monitoring CRA practices.

221. Upon completing the training programme, lead farmers will begin implementing CRA practices on their own farms, with ongoing support throughout the transition. During each year of implementation (from Project Y2), each lead farmer will receive at least two field visits per year — one from an NGO technical expert accompanied by a government extension officer, and another from the extension officer alone. The combined visits will serve a dual purpose: first, to provide hands-on support in CRA implementation, and second, to enhance the ongoing capacity building of extension officers. Over the four-year period, this approach will result in 1,340 combined visits across all 335 lead farmers, with an additional 1,340 visits conducted by extension officers independently.

222. Since the lead farmers require time to prepare their plots and establish CRA practices, they will be given one growing season (4–6 months) before advancing to Phase 3 of the cascading capacity building programme. Early results — such as improved soil moisture retention, plant growth, and nutrient cycling from techniques like crop rotation, intercropping, mulching, and organic fertilisation — may become visible within 2–3 months, allowing for early demonstrations. However, longer-term benefits from practices like agroforestry or improved soil fertility from organic amendments, may require a full season or more to show significant impact.

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223. To accommodate these timelines, each lead farmer will conduct two training workshops for follower farmers, one after the first growing season, showcasing early results from CRA practices, and a second one after a full season (or longer), demonstrating the longer-term benefits of CRA techniques. These workshops will follow the same four-day structure used in lead farmer training, incorporating both theoretical and practical components, and access to and use of seasonal forecasts and climate advisories. To ensure broad accessibility, workshops will not be scheduled during key agricultural periods, such as planting and harvesting, or in the evenings when women have domestic and caregiving responsibilities. Additionally, farmers will be assisted in registering with the Chamka App, enabling them to have access to guidelines on CRA practices and technologies after the initial training.

224. These workshops will also be used to assist farmers in establishing farmer cooperatives to consolidate their production systems. The cooperatives will be formally registered with the relevant authorities, enabling them to enter legal contracts. Members of each cooperative will be supported in electing an executive committee consisting of a chairperson, treasurer, and secretary, with a focus on promoting women, youth, and Indigenous Peoples in leadership roles to ensure equity and generational stability of the cooperative. Clear bylaws and regulations will be drafted to define members' rights and obligations, profit distribution, decision-making processes, and conflict resolution mechanisms.

Activity 3.1.4: Facilitate linkages between smallholder farmers and certified distributors of climate-resilient seeds

225. The target landscape in Siem Reap Province experiences both flooding and drought, requiring resilient crop varieties that can withstand these extreme conditions. Annex 23b provides a categorised list of suitable crop types based on their ability to tolerate either floods or drought. The proposed project will promote the use of climate-resilient crop varieties through two key pathways (Figure 17), namely: i) enhancing awareness and knowledge of climate-resilient crops; and ii) improving access to climate-resilient seeds. The first intervention is addressed through the CRA training programme according to the FFS model outlined above, which includes training on CRA technologies — such as climate-resilient crops — and making training materials available on online platforms like the Chamka App.

226. This activity focuses on the second pathway: improving access to climate-resilient seeds, specifically by facilitating linkages with certified distributors of climate-resilient seeds. An additional activity for enhancing access — supporting local seed multiplication programmes — will be implemented under Activity 3.3.2.

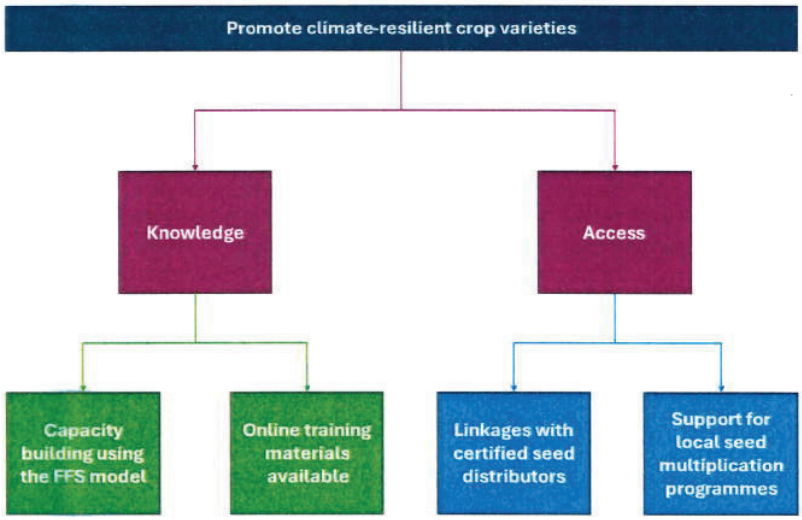


Figure 17. *The two pathways for promoting climate-resilient crop varieties*

227. To address the need for improved access to climate-resilient seeds, facilitating linkages with certified seed distributors will focus on both identifying reliable suppliers and establishing structured coordination mechanisms to ensure farmers' access to high-quality, affordable, climate-resilient crop varieties. Details on potential distributors presented in Annex 23b.

228. The process will begin with identifying and mapping active certified seed distributors in Siem Reap Province and neighbouring areas, in collaboration with PDAFF and CARDI, to ensure compliance with national agricultural policies. Simultaneously, farmer

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groups and cooperatives will be engaged to assess their specific seed requirements, including crop type, quantity, and seasonal demand. Next, a centralised negotiation meeting will be held, bringing together seed providers, farmer representatives, and relevant authorities — such as government agricultural officers, legal advisors, and possibly financial institutions — to discuss pricing, quality standards, supply timelines, and logistics. Following these negotiations, contractual agreements will be drafted and signed, outlining: i) pricing mechanisms (fixed or floating based on market trends); ii) quality assurance and certification requirements; iii) delivery schedules and logistics; iv) payment terms; and v) dispute resolution mechanisms.

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

229. Communities in the target area face several market challenges for sustainably produced agricultural and NTFP commodities, restricting their economic potential and exacerbating unsustainable and maladaptive practices. These challenges include:

- Weak market coordination among producers, limiting their ability to collectively manage seasonal production cycles and price fluctuations. This results in oversupply during peak seasons — leading to price drops and scarcity in off-seasons, which disrupts income stability.
- Informal market linkages, resulting in commodity sales through unstructured channels, such as middlemen, rather than through well-regulated supply chains that offer better market stability and pricing.
- Lack of standardised branding or certification makes it difficult for consumers or buyers to distinguish sustainably produced commodities from conventionally produced goods, limiting their ability to command premium prices.
- Lack of traceability systems makes it impossible to track a product's origin and production methods, which is increasingly important for buyers, especially premium markets that prioritise food safety and sustainability.
- Poor post-harvest practices reduce the quality and quantity of products available for sale, leading to financial losses for producers and limiting their ability to compete in higher-value markets.

Without formal market recognition through labelling, traceability, and certification, rural producers struggle to access high-value markets, such as organic food retailers or export opportunities. Additionally, value chain constraints limit producers' capacity to meet quality standards for formal markets, supermarkets, or export buyers. As a result, they are often forced to sell at lower prices in undifferentiated markets where prices are lower and more volatile, reducing their profitability and incentives to maintain sustainable, climate-resilient agroecological practices.

230. 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. This will be achieved by supporting community-based enterprises to enhance the commodity value chains of key agricultural products and NTFPs (such as cashews, which are an important product in the region), including facilitating market links and value addition practices. Support will include active training on value-add practices, market access and business management. 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. Business models for NTFP value chains will be developed and implemented in the target markets, focusing particularly on women-led enterprise development. Opportunities for introducing incentives for sustainably sources NTFPs will be explored, alongside providing advisory services and facilitating market access. This activity will leverage the growing demand in Cambodia and globally for environmentally sustainable and socially responsible products[60].

Implementation

231. This output will be overseen by the Siem Reap Provincial Department of Agriculture, Forestry, and Fishery (PDAFF). However, for interventions related to the CPAs within Zone 6 (Phnom Kulen National Park), MoE will take the lead, specifically through the Siem Reap Provincial Department of Environment (PDoE).

60 Development and trade partners are increasing the environmental standards/regulations in their relations with Cambodia (e.g., EU green deal and new priority for deforestation free commodities). These demands constitute an opportunity for farmers and local communities to get higher prices for "greener" products.

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232. Specialist consultants will be engaged to conduct market analyses and develop business models for both agricultural products and NTFPs. For agricultural products, local NGOs in Siem Reap Province — such as Agrisud International, GRET, Green Farmer Siem Reap (GFS), and Trailblazer Cambodia Organization (TCO) — are well-established organisations that could be contracted.

233. For NTFPs, the Non-Timber Forest Products – Exchange Programme (NTFP-EP) is an international NGO with a strong presence in Cambodia. Given its expertise, NTFP-EP is well positioned to conduct the market analysis, develop business models, and facilitate the interventions related to NTFPs.

Activity 3.2.1: Develop business models for commodity value chains of key agricultural products and NTFPs in the target markets, focusing primarily on community-based and women-led enterprise development

234. Farmers in the target communes practice agroforestry by integrating various tree species with their crops to enhance productivity and sustainability. Fruit-bearing trees such as mango (*Mangifera indica*), jackfruit (*Artocarpus heterophyllus*), and banana (*Musa spp.*) are cultivated alongside staple crops like rice, maize, cassava, and vegetables, providing additional food and income sources. Additionally, cashew (*Anacardium occidentale*) is grown in some areas as a cash crop. Beyond crop farming and agroforestry on croplands, forest-dwelling communities in Community Protected Areas (CPAs) and Community Forests (CFs) harvest a range of NTFPs, including wild lychee, mushrooms, rattan, *traing* (wild rattan fruit), resin, honey from wild bees, and various medicinal and aromatic plants.

235. Under this activity, the project will conduct a comprehensive market analysis and develop viable business models to strengthen market access for farmers and producer groups, enhance the economic viability of climate-resilient agroecological practices, and improve income stability while promoting sustainable and equitable value chains.

236. The market analysis will entail a comprehensive assessment of market demand, supply chains, pricing structures, and traceability systems for key agricultural and NTFP commodities in the target area. It will identify commodities with the highest potential for profitability, resilience to climate change, and alignment with sustainable agroecological practices. Based on this analysis, the project will prioritise commodities that offer strong economic prospects for farmers and local producers. Additionally, the analysis will map existing commodity value chains, including input suppliers, producers, processors, traders, and buyers. It will identify gaps and inefficiencies, as well as opportunities for value addition, such as improved storage, processing, packaging, or certification. Under the GCF PEARL project, the Government of Cambodia is receiving support in identifying target certification programmes for climate-resilient and high-value commodities, specifically cashew, mango, organic rice, and green leafy vegetables. The LDCF project will leverage the knowledge generated by PEARL, integrating relevant certification recommendations for these four commodities into the market analysis.

237. The analysis will also assess existing market linkages and explore potential opportunities across local, regional, and international buyers. It will evaluate pricing mechanisms, price stability, and key risks, such as price volatility and access barriers. To ensure an inclusive and context-sensitive approach, the market analysis will involve extensive consultation with Indigenous Peoples and Local Communities (IPLCs), particularly women. These consultations will capture IPLCs knowledge, preferences, and constraints related to agroecological and NTFP-based livelihoods, ensuring that that the market analysis reflects culturally appropriate practices, traditional resource management approaches, and socioeconomic realities.

238. Based on the findings of the market analysis, business models will be developed for high-potential commodities to strengthen market integration and economic sustainability. These business models will: i) outline opportunities for value addition to enhance market potential, such as improved post-harvest handling, processing, branding, traceability, and certification; ii) recommend strategies for establishing linkages with structured markets through cooperatives, contractual agreements, or digital platforms to ensure reliable pricing and demand; iii) provide guidelines for financial sustainability, including revenue generation mechanisms, cost-benefit analysis, and potential financing options for scaling production.

239. The business models will integrate insights from IPLCs, ensuring that indigenous and local producers can participate equitably in markets while maintaining traditional livelihoods. Special emphasis will be placed on addressing gender-specific barriers to market access and economic empowerment. To facilitate adoption, the business models will be developed into practical guidelines tailored for farmer cooperatives, producer groups, extension services, and market actors, which will be uploaded to relevant digital platforms for knowledge accessibility.

Activity 3.2.2: Train local communities to implement business models, including training on value-add practices, market access, and business management

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Under this activity, the practical guidelines developed under Activity 3.2.1 will be developed into a comprehensive training programme to support farmers and producer organisations in implementing the recommended business models. This will ensure they can effectively integrate these models into their production and marketing strategies. The training programme will also integrate lessons learnt and best practices from the market access initiatives implemented under the GCF PEARL project. The training will consist of four one modules delivered over three days, covering the following key topics.

- Post-harvest management and value addition, including: i) best practices for post-harvest handling, drying, and storage; ii) processing techniques, such as cashew nut shelling, mango drying, and organic rice milling; and iii) packaging and branding for enhanced market value.
- Market integration and value chains, including: i) understanding commodity value chains and market trends; ii) operationalising farmer cooperatives and producer organisations; and iii) certification and quality standards.
- Business and financial management, including: i) financial literacy; ii) access to credit and financing for agricultural inputs and post-harvest management; and iii) business planning.
- Market linkages and digital platforms, including: i) understanding contracts and buyer agreements; ii) exploring digital marketplaces and e-commerce opportunities; and iii) risk management.

Using this training programme, 61 workshops will be conducted across the project area, targeting ~4,800 farmers (at least 50% women) trained in climate-resilient agriculture (CRA) under Output 3.1. These workshops will be led by expert extension officers from both the public and private sectors, including government specialists in agricultural and NTFP market access, as well as local and regional NGO experts.

Each workshop will accommodate approximately 80 farmers and be scheduled at accessible locations and convenient times to maximise participation and ensure inclusivity. To complement in-person training, all training materials will be uploaded to relevant online platforms, such as the Chamka App, allowing farmers to access learning resources at their convenience. During these sessions, participants will also receive guidance on registering and navigating these platforms to access relevant information.

Activity 3.2.3: Link farmers to commodity off-takers and provide advisory services to facilitate market access for climate-resilient agricultural products and NTFPs

Following the CRA training for smallholder farmers under Output 3.1, as well as the market analysis and business model development under Activity 3.2.1 and the business and financial literacy training for farmers and producers under Activity 3.2.2, the project will facilitate market access by linking farmers will with commodity off-takers. This will enable them to explore contract farming and production arrangements that offer mutual benefits for both growers and buyers.

The engagement process between farmers and off-takers will commence with field visits to the functioning demonstration plots established under Activity 3.1.1. This will allow commodity buyers identified under Activity 3.2.1 — for example, agro-processors, wholesalers, retailers, and exporters — to assess firsthand the quality of crops and NTFPs being cultivated. The direct exposure will help build buyer confidence in farmers' capacity to meet volume and quality requirements.

Field visits will serve as initial, informal interactions between farmers, producers and potential buyers before formal contract negotiations. They will be strategically scheduled during key crop growth phases or just before harvest to best demonstrate product quality. Farmers and agricultural extension officers will guide buyers through the production process, highlighting the adoption of sustainable, climate-resilient agricultural practices. The participants in these visits will include principal lead farmers managing the demonstration plots, other representative lead farmers from the district, and cooperative representatives. Market linkage specialists will facilitate the discussions between the parties to ensure meaningful engagement.

Following the field visits, a business-to-business (B2B) forum will be organised to provide a structured platform for farmers and off-takers to negotiate contract terms, including pricing, volumes, delivery terms, and support provisions, such as input supply, extension services, and logistics. This forum will be conducted as a formal roundtable discussion involving farmers, buyers, and market advisors. Legal advisors will be present to review contract terms, ensuring fairness and protecting farmers from exploitative clauses. Financial institutions will also participate to advise on financing options that could support farmers in meeting contract obligations. Additionally, representatives from local government or MAFF will be involved to ensure alignment

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with national agricultural policies and farmer protection regulations. Contracts will incorporate climate risk provisions, such as renegotiation clauses in the event of drought or flood-induced yield losses. The forum will also serve as an opportunity for off-takers to present digital agribusiness marketplaces, enabling farmers to connect directly with them through online platforms.

Once contracts are finalised, contract implementation will be monitored to ensure compliance by both farmers and buyers. Regular feedback will be collected from all parties to assess the effectiveness of pricing models and support mechanisms. Based on initial results, necessary adjustments can be made to improve the sustainability and scalability of these contractual arrangements.

Activity 3.2.4: Introduce incentives for sustainably sourced NTFPs

240. Under this activity, producers of non-timber forest products (NTFPs) will be incentivised to sustainably produce climate-resilient commodities through strengthened market linkages with the tourism industry. This approach will generate mutual benefits for both producers and buyers, resulting in increased household income for forest-dwelling communities, improved conservation of forest resources through sustainable harvesting practices, strengthened partnerships between local producers and the tourism sector, and enhanced visibility and marketability of locally produced NTFPs in eco-tourism markets.

241. The process will begin with identifying and engaging potential NTFP buyers, including hotels, ecolodges, resorts, souvenir shops, and restaurants in Siem Reap and Phnom Kulen National Park. Following theses initial engagements, business matchmaking events will be organised to facilitate direct interactions between producers and hotel procurement managers, as well as tourism business owners. The showcased products may include wild honey, rattan crafts, essential oils, medicinal herbs, dried fruits, natural dyes, and handmade soaps.

242. To formalise these market linkages, a business-to-business (B2B) forum will be organised, providing a structured platform for producers and buyers to negotiate contract terms. Discussions will cover key aspects, such as pricing, product volumes, delivery schedules, and support provisions — including input supply, extension services, and logistics. Additionally, display kiosks will be set up in hotels and tourism sites to enable direct sales to tourists.

243. The forum will be structured as a roundtable discussion involving producers, buyers, and market advisors. Legal advisors will review contract terms to ensure fairness and protect producers from exploitative clauses, while financial institutions will provide guidance on financing options to help producers meet contract obligations. Furthermore, representatives from local government or MAFF will be involved to ensure alignment with national forestry policies and producer protection regulations. To address climate risks, contracts will include provisions for renegotiation clauses in cases of drought or flood-induced yield losses. The forum will also introduce digital marketplaces, allowing producers to connect directly with buyers through online platforms.

244. Beyond formal contracts, the project will implement three complementary strategies to promote NTFP sales: i) developing branding and storytelling initiatives that highlight the cultural and environmental benefits of NTFPs; ii) leveraging digital platforms, including hotel websites and social media to promote partnerships and products; and iii) organising eco-tourism experiences where tourists can visit producer communities, learn about sustainable harvesting, and purchase products directly.

245. Once contracts are finalised, the project will establish monitoring mechanisms to ensure compliance by both producers and buyers, while addressing logistical challenges such as storage, delivery, and inventory management. Regular feedback from all stakeholders will be collected to assess the effectiveness of pricing models and support mechanisms. Based on these insights, necessary adjustments will be made to improve the sustainability and scalability of contractual arrangements.

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

246. The market development under Output 3.2 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-focused 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.

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Activity 3.3.1: Establish community-based nurseries to supply suitable trees for the restoration and agroforestry initiatives

247. Although existing nurseries in Siem Reap Province support reforestation and sustainable land management initiatives, project development consultations revealed that they are insufficient to meet the growing demand for trees. This gap is particularly evident in high-priority areas where reforestation and forest restoration efforts are ongoing. An assessment determined that six additional nurseries are required (over and above the four new nurseries being established under the UNDP ER-IP Project) to sustain and expand tree production for forest restoration and agroforestry initiatives.

248. Under this activity, the project will support the establishment of six community-managed nurseries in strategic locations to promote local ownership, income generation, and decentralised access to seedlings. These nurseries will operate as social enterprises, ensuring financial sustainability beyond the project's implementation period. Local community-based organisation (CBOs), such as cooperatives, community forest groups, or farmer organisations will manage the nurseries, with initial project support provided for their establishment, capacity building, and operations for one year.

249. The activity will begin with the identification of the six CBOs to manage the nurseries, based on the following criteria:

- Institutional and organisational capacity
  - Local recognition: Established local orgnaisations, preferably formally registered with the relevant authorities.
  - Governance and management: Clear leadership structure, decision-making processes, and transparent management.
  - Financial capacity: existing capacity or williness to participate in capacity development for the management of finances, including basic financial record keeping and accountability mechanisms.
- Technical and operational capacity
  - Experience: Prior involvement or williness to participate in capacity development for tree nursery operations, seedling production, or forestry-related activities.
  - Land and water access: Availability of suitable land with secure tenure and a reliable water source.
- Community engagement and sustainability
  - Long-term commitment: Willingness to manage the nursery long-term and integrate it into reforestation and agroforestry initiatives.
  - Community involvement: Strong ties with local communities, particularly with women, youth, and indigenous groups.
  - Capacity building readiness: Openness to training programmes on nursery management, climate adaptation, and ecosystem restoration.
- Market linkages and economic viability
  - Distribution potential: Ability to supply seedlings to restoration projects, farmers, or commercial markets.

250. Once the six CBOs are selected, nurseries will be established at designated sites. This process will involve ground preparation, infrastructure installation — construction of fencing, shaded areas, and seed storage facilities — and provision of inputs and equipment — supply of seeds, cuttings, soil, planting bags, organic fertilisers, tools, and irrigation materials.

251. While the nurseries are being set up, members of the six selected CBOs will participate in a five-day capacity building workshop at an existing operational nursery. The training will cover both technical and business aspects of nursery management through a combination of theoretical sessions and practical demonstrations. Key training modules will include: i) nursery operations; ii) seed collection and propagation; iii) business planning and financial management; iv) marketing and sales strategies; and v) cooperative governance and leadership.

252. Following nursery establishment and completion of the capacity-building workshop, the project will provide one year of operational support, covering basic operational costs (water and utilities), staff salaries to ensure nursery management during the initial phase, and technical assistance to enhance nursery productivity and sustainability.

Activity 3.3.2: Support the development of local seed multiplication and distribution businesses for climate-resilient and diversified crops

253. In Cambodia, local seed multiplication programs are increasingly promoted to improve farmers' access to climate-resilient seeds, particularly drought- and flood-tolerant rice and vegetable varieties. These programmes are supported by the Provincial Department of Agriculture, Forestry, and Fisheries (PDAFF) in collaboration with organisations such as CARDI, NGOs, and agricultural cooperatives. In Siem Reap and surrounding provinces, some community-based seed producer groups have been

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established under past projects — such as those supported by GRET and Agrisud International — to multiply and distribute improved varieties locally. However, these programs remain limited in scale, highlighting the need to strengthen and expand them to ensure sufficient production capacity and quality control of climate-resilient seeds.

254. To support local seed multiplication and distribution, the project will identify and assess existing seed producer groups or cooperatives within the target communes. This assessment will be followed by technical training and capacity building for selected farmers or groups on certified seed production techniques, including: i) seed selection and purification; ii) isolation practices to prevent cross-pollination; and iii) quality assurance and post-harvest seed storage. In addition to training, farmers and farmer groups will receive starter materials and inputs, including foundation seeds from CARDI or other certified sources, as well as tools and equipment for seed processing and storage. Once these farmers/farmer groups become operational, they will be linked with quality certification bodies, such as the Department of Agricultural Legislation (DAL), to ensure their seeds meet national quality standards and can be formally certified. After certification, they will receive support to formalise their seed producer groups into recognised entities, enabling them to collaborate with PDAFF and integrate into the official seed supply chain promoted by extension services.

Activity 3.3.3: Support the establishment/strengthening of community-based businesses that complement and support the implementation and maintainance NbS in the target areas

255. To supplement their agricultural incomes, communities in the target area have established mini-marketplaces and shops that serve food and beverages to tourists and sell locally made handicrafts using NTFPs. However, these activities remain small in scale and face challenges related to infrastructure, market linkages, and sustainability. This activity will support target communities in upgrading market infrastructure and vendor spaces, with a strong emphasis on eco-friendly solutions, renewable energy, and improved market appeal.

256. The activity will begin with a comprehensive assessment of existing mini-marketplaces and vendors to evaluate:

- current infrastructure and upgrade needs — identifying necessary improvements such as shaded stalls, proper display areas, and storage to enhance product presentation and prolong shelf life;
- packaging and waste-management practices — reviewing current practices and recommending sustainable packaging and waste reduction strategies;
- energy systems and renewable energy potential — assessing existing energy sources and exploring the feasibility of installing solar panels for lighting and cooling to improve sustainability and reduce operational costs; and
- current production practices — evaluating production methods to ensure they are aligned with NbS in the target areas and do not contribute to deforestation or ecosystem degradation.

257. Based on the assessment findings, targeted recommendations will be made for upgrading the existing mini-marketplaces and vendor spaces in four key areas:

- Infrastructure improvements — enhancing vendor stalls, storage, and display areas.
- Sustainable packaging and waste management — introducing eco-friendly packaging solutions and waste management systems.
- Renewable energy integration — supporting the adoption of solar-powered lighting and cooling solutions.
- Production methods — incentivising sustainable, climate-resilient harvesting and production methods.

258. The project will prepare communities to implement these improvements, ensuing they align with local needs, climate-resilience objectives, and sustainability goals, including gender equality.

259. Beyond infrastructure improvements, the project will support communities in developing interactive tourism experiences that attract more visitors. These may include: i) farm-to-table experiences, where tourists engage with local producers and enjoy fresh, sustainable, locally sourced meals; ii) handicraft-making demonstrations, allowing visitors to see artisans at work and purchase unique, sustainable handmade products; iii) guided market tours, providing insights into local products, traditional food, and cultural practices; iv) cooking or handicraft courses; and v) native tree planting or seedling donations to support forest

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restoration[61]. This initiative is closely linked with Activity 3.2.4; however, while this activity focuses on enhancing the appeal and functionality of market spaces, Activity 3.2.4 is dedicated to marketing the destinations.

260. Finally, the project will support communities in establishing restoration service provision businesses that will support further restoration efforts in the SSR Watershed. These businesses will offer reliable services to support long-term restoration efforts – particularly those supported through the innovative finance initiatives under Output 2.3 and the PES system under the ER-IP project. Services will include tree planting, seedling delivery and maintenance of restoration sites. Given that demand for these services will be somewhat seasonal and may vary from year to year depending on the status of restoration initiatives/finances, the businesses will be set up as supplementary income to farming communities, as opposed to new alternative livelihoods. Local community groups will be trained on: i) restoration protocols; ii) business planning and financial management; iii) marketing and sales strategies; and iv) cooperative governance and leadership.

261. Support for enterprise development will include linking eligible enterprises with the innovative finance mechanisms being developed under Output 3.4 to support the initial costs of implementing business plans.

Activity 3.3.4: Train local community groups on the establishment of village- and eco-tourism initiatives that incentivise the sustainable management of natural resources

262. To facilitate the successful adoption and long-term sustainability of community-based enterprises outlined in Activity 3.3.3, a comprehensive capacity-building programme will be implemented. This initiative will support both marketplace vendors and NTFP-based livelihoods while fostering synergies between them, thereby strengthening the role of eco-tourism in climate adaptation. The training will address both technical and business competencies relevant to the village– and eco-tourism enterprises, equipping stakeholders with the skills and knowledge necessary for effective implementation and sustained success. The programme will prioritise inclusivity — ensuring that at least 50% of participants are women — and will complement investments in eco-tourism under the ER-IP initiative.

263. The activity will begin with a participatory training needs assessment involving marketplace vendors, NTFP harvesters, and processors to identify skills gaps and capacity-building priorities. Cross-cutting themes, such as financial literacy, business development, and marketing, will be identified to enable joint training opportunities where relevant. Based on the assessment, a modular training programme will be developed, offering flexibility to accommodate diverse livelihood activities while promoting shared learning experiences.

264. Key modules will include:

- Module 1: Sustainable business practices and market access (Joint training for marketplace vendors and NTFP producers)
  - Fundamentals of eco-tourism and sustainable supply chains
  - Customer service and storytelling — enhancing visitor engagement through cultural and eco-friendly narratives
  - Financial literacy and pricing strategies
  - Digital marketing and online sales platforms
- Module 2: Food safety and hygiene (For vendors catering food and beverages)
  - Safe food handling, hygiene standards, and storage techniques
  - Sustainable packaging alternatives to minimise waste
  - Promotion of local and traditional foods for tourism markets
- Module 3: Value addition for NTFPs (For harvesters and processors)
  - Sustainable harvesting methods to enhance ecological resilience
  - Processing techniques to improve product quality and shelf life
  - Branding and certification for organic, fair-trade, or other relevant market standards
- Module 4: Eco-tourism and cultural storytelling (Joint training for all participants)
  - Incorporating traditional knowledge and cultural narratives into products and experiences
  - Developing interactive visitor experiences, such as guided tours and product demonstrations
  - Strengthening linkages between NTFP suppliers and food vendors to create a cohesive marketplace offering
- Module 5: Climate resilience and sustainable resource management (For NTFP harvesters and processors)
  - Agroforestry and sustainable harvesting techniques to support biodiversity conservation
  - Climate-resilient production practices and adaptation strategies
  - Legal frameworks and community-based conservation agreements

61 Linking with the tourist-based restoration effort under the ER-IP project

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265. To maximise knowledge transfer and practical application, the programme will employ a combination of interactive and experiential learning approaches, including:

- Workshops and demonstrations — Including practical training sessions for food safety, processing, and sustainable enterprise management
- Peer learning and exchange visits — Marketplace vendors visit established eco-tourism businesses, while NTFP harvesters will engage with experienced processors
- Mentorship and coaching — Pairing emerging entrepreneurs with experienced practitioners for guidance and support
- Digital learning and toolkit distribution — Providing communities with instructional videos, printed guides, and mobile-accessible refresher courses

266. This structured capacity-building approach will strengthen local livelihoods, enhance market opportunities, and contribute to the resilience of community enterprises within the eco-tourism sector. As with Activity 3.3.3, support for enterprise development will include linking eligible enterprises with the innovative finance mechanisms being developed under Output 3.4 to support the initial costs of implementing business plans.

Component 4: Knowledge, research and Innovation

(Total Cost: US$ 2,512,273; GEF project grant requested: US$ 767,040; Co-financing: US$ 1,721,183)

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

267. 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 Components 2 and 3 — which will be monitored under Component 5 — as well and new research and innovation under Outputs 4.1 and 4.2. This will include a strong research component, alongside knowledge management and outreach strategies. Activities under this output will be initiated early in the implementation period and will directly feed into the implementation of the other components.

268. The outcome of Component 4 will be high-quality knowledge that is generated, managed and disseminated both nationally and internationally to enable and promote the scaling of interventions to other watersheds across Cambodia and the surrounding region. This will catalyse additional investments in integrated watershed management, restoration and conservation, replicating success models to multiple the environmental and climate resilience benefits achieved through Component 2.

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

269. Cambodia's forests provide critical ecosystem services, including water flow regulation, erosion control, and biodiversity conservation, which underpin the country's economy. Agriculture, which relies heavily on these services — particularly water regulation, erosion control, and nutrient retention — accounted for 22% of Cambodia's GDP in 2024. Similarly, tourism and ecotourism, which depend on the country's rich biodiversity in forest landscapes contributed approximately 9.4% to GDP that year.

270. Recognising the importance of these ecosystem services, the Cambodian government is increasingly prioritising their valuation as a key input for improved decision-making on protected area, forests and natural resources. This commitment is reflected in Cambodia's Natural Capital Accounts (NCA) initiative. The Ministry of Environment (MoE) and Ministry of Water Resources and Meteorology (MoWRAM) have expressed strong interest in integrating ecosystem service values into decision-making related to forest conservation, protected areas, and watershed management. Proper valuation not only strengthens protection efforts but also helps address the root causes of forest degradation. However, the widespread application of ecosystem service valuation remains limited due to data gaps, the absence of standardised methodologies, and institutional and technical capacity

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constraints[62]. Consequently, economic analysis has played a limited role in shaping forest management and financing strategies in Cambodia.

271. A key recommendation from the World Bank study, *Valuing the Ecosystem Services Provided by Forests in Pursat Basin, Cambodia* was the development of a national roadmap for scaling up ecosystem service valuations using a National Capital Accounting (NCA) approach. Establishing an NCA Roadmap would have several advantages, including: i) a standardised methodology for valuing ecosystem services and integrating the data into decision-making; and ii) more cost-effective and reliable data collection, analysis, and access through a coordinated NCA framework[63].

272. This output aims to advance Cambodia's Natural Capital Accounts, using the System of Environmental-Economic Accounting (SEEA). By doing so, it will help clarify the linkages between ecosystem services provided by Cambodia's forests and their benefits to society. Additionally, it will establish an evidence base for NCA in the country, guiding integrated planning, decision-making and public budget allocation across multiple sectors. The knowledge generated through this output will be integrated into the knowledge management system being developed under Output 4.3, which in turn informs the DST under Output 1.1. By doing so, this knowledge will inform future decision making. Moreover, the project management unit, guided by the M&E Specialist, will continually assess the lessons learned through these valuations and use the information to inform annual work plans to adaptively manage activities under Components 2 and 3 of the project.

Activity 4.1.1: Develop a stakeholder-endorsed ecosystem services valuation methodology and NCA Roadmap

273. A robust governance framework and inter-agency coordination mechanisms are essential for the successful development and institutionalisation of Natural Capital Accounts (NCA) in Cambodia. Effective coordination will ensure institutional buy-in, create policy demand for natural capital accounts, and establish a shared understanding of their role in decision-making. Given that NCA is inherently multi-disciplinary, requiring diverse dataset, expertise, and institutional collaboration, strong governance mechanisms are needed to align efforts across key stakeholders.

274. To facilitate this, an inter-ministerial coordination body will be established, comprising representatives from the Ministry of Environment (MoE), Ministry of Water Resources and Meteorology (MoWRAM), Ministry of Economy and Finance (MEF), Ministry of Agriculture, Forestry, and Fisheries (MAFF), and research institutions, such as the Cambodia Development Resource Institute (CDRI). This body will oversee the strategic direction of NCA development, ensuring alignment with national policies and long-term sustainability beyond the project's lifespan.

275. The inter-ministerial body will be responsible for developing a comprehensive NCA strategy and roadmap to guide the implementation and scaling of ecosystem service valuations in Cambodia. This strategy will be informed by an in-depth review of Cambodia's existing and past ecosystem accounting initiatives, incorporating lessons learnt and best practices from similar efforts — such as the World Bank study, *Valuing the Ecosystem Services Provided by Forests in Pursat Basin, Cambodia*. The roadmap will define clear steps for mainstreaming NCA into national planning, including priority ecosystem services for valuation, data integration processes, and institutional responsibilities.

276. Given Cambodia's limited experience with NCA, the roadmap's implementation will be supported by a targeted capacity-building programme consisting of two components: i) technical training for account compilers, which will focus on best-practice methodologies, data collection, modelling techniques, and the application of the System of Environmental-Economic Accounting (SEEA); and ii) awareness raising for policymakers to enhance understanding of NCA's relevance to policy, planning, and public finance management, fostering high-level support for integrating ecosystem service valuations into decision-making.

277. To further strengthen Cambodia's NCA development, the activity will facilitate bilateral knowledge exchanges and participation in regional forums, enabling Cambodian stakeholders to learn from countries with established NCA frameworks. These engagements will provide insights into institutional arrangements, technical challenges, and policy applications, helping to refine Cambodia's approach based on international best practices.

278. By establishing a strong governance mechanism, a well-defined roadmap, and a structured capacity-building programme, this activity will lay the foundation for the systematic valuation of Cambodia's ecosystem services, supporting data-driven policy decisions and long-term environmental sustainability for climate resilience.

Activity 4.1.2: Conduct an economic valuation of ecosystem services in the Steung Siem Reap Watershed

62 Rawlins M et al. 2020. Valuing the Ecosystem Services Provided by Forests in Pursat Basin, Cambodia. World Bank: Washington D.C.
63 Rawlins M et al. 2020. Valuing the Ecosystem Services Provided by Forests in Pursat Basin, Cambodia. World Bank: Washington D.C.

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279. The activity will quantify the economic value of four key ecosystem services provided by forests in the Steung Siem Reap Watershed — hydrological services, supporting services (particularly soil nutrient cycles), provisioning services (such as food and medicine for local communities), and tourism benefits — to strengthen the economic case for conservation and sustainable forest management. The valuation will draw on the landscape mapping and biophysical analyses done under Output 1.3.

    The valuation process will consist of two key steps:

    - Developing ecosystem service accounts in physical terms — This involves assessing the supply, use, and benefits of ecosystem services in measurable biophysical terms. For hydrological services, this will include the volume of water available for irrigation, domestic use, tourism infrastructure and facilities, and structural support for the Angkor Wat Archaeological Complex. For tourism, this will involve quantifying the visitor numbers, recreational use patterns, and tourism-related revenue linked to forest ecosystems. For soil nutrient cycles, this will include quantifying soil organic carbon, nutrient balance, soil microbial biomass and enzyme activity, and erosion rates. For provisioning services, this will entail quantifying the quantity of wild and cultivated food harvested, the number and biomass of medicinal plants collected, and the species diversity and abundance of key food and medicinal plants.
    - Monetary valuation of ecosystem services — The physical ecosystem accounts will be translated into monetary terms, assigning an economic value to the services provided by forests. This step will quantify: i) the monetary value of water resources for agriculture, industry, tourism, household supply, and structural support to the Angkor Archaeological Complex, based on avoided costs, replacement costs, or willingness-to-pay methodologies; ii) the economic contribution of forest-based tourism, including direct spending, employment generation, and broader economic impacts such as ecotourism-related business revenue; iii) the monetary value of soil nutrient cycles using the replacement cost method or productivity method; and iv) the monetary value of provisioning services (food and medicine) using the market price method, substitute cost method, or willingness-to-pay approach.

280. The final output of this activity will be an Ecosystem Supply-Use Account, which will provide a clear framework for integrating ecosystem service values into Cambodia's national accounting and financial decision-making processes, particularly as they relate to forest conservation and restoration protocols in the climate change context. The information will be incorporated into a natural asset register, housed within the project's knowledge-management system, ensuring accessibility for policymakers, investors, and conservation planners.

281. Additionally, the findings will be synthesised into a user-friendly report to raise awareness among policymakers, financial institutions, and private sector stakeholders on the economic rationale for investing in natural capital. This will highlight opportunities for enhancing ecosystem service value through conservation and restoration, supporting evidence-based policies, sustainable financing mechanisms, and investment strategies for Cambodia's forests.

Activity 4.1.3: Conduct research into climate-resilient restoration and agriculture practices suited to the local context of the Steung Siem Reap Watershed

282. To improve the climate-resilience and adaptation impact of future investments in ecosystem restoration, watershed management and agricultural development, the project will partner with local research institutions to investigate tailored solutions for the local biophysical conditions and socioeconomic contexts of the SRW Watershed. These studies will consider several key research themes, including: i) suitable native species for ecosystem-based adaptation and improve understanding of their roles in maintaining the function of the local ecosystem services[64]; ii) the function of wetlands and riverbank stabilization techniques in flood mitigation, sediment control, and ecosystem regeneration; iii) multi-strata agroforestry systems and the role of native species in improving soil fertility, biodiversity, and climate resilience; and iv) suitably resilient cultivated species (such as crops, fruits and vegetables) and farming techniques that strengthen climate resilient 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 and innovation in climate smart agriculture — to support the agricultural studies.

Activity 4.1.4: Develop knowledge products for informed decision-making

64 This will include assessing 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.

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283. This activity will consolidate the data, insights, and findings generated through the biophysical assessments and ecosystem services valuations into targeted knowledge products that support evidence-based policy and investment decisions on forest and watershed management in the SSR Watershed and Cambodia's broader forest landscapes.

284. A range of knowledge products will be developed to translate complex technical findings into accessible and actionable formats for diverse stakeholders, including government agencies, policymakers, investors, conservation practitioners, and local communities. These products will include:

- Input to policy briefs, outlining key findings and their implications for forest and watershed management strategies.
- Case studies showcasing best practices, challenges, and lessons learnt from the assessment and valuation process — including particular focus on best practices for climate-responsive restoration protocols and agriculture practices, and gender-responsive actions.
- Infographics and interactive data visualisations to communicate ecosystem service values and trade-offs.
- Video documentaries and multimedia content to engage a broader audience, including communities and decision-makers, in the importance of natural capital investments.

285. To ensure widespread access and long-term usability, these knowledge products will be uploaded to the KMS developed under Output 4.3. This platform will serve as a centralised repository for stakeholders, enabling efficient resource allocation and targeted interventions for forest conservation, restoration, and ecosystem service enhancement. By translating scientific data into practical guidance, this activity will help prioritise ecological restoration efforts in areas most critical for sustaining hydrological services, supporting services, provisioning services, and tourism benefits in the SSR Watershed.

Output 4.2: Innovative digital technologies developed for climate smart agriculture and agroecology value chains to enhance community and ecosystem resilience in the TSB

286. This output aims to enhance the integration of digital technologies into agroecological value chains to improve market access, traceability, and sustainability certification for smallholder farmers. By leveraging digital solutions, farmers will gain greater transparency in value chains, better access to premium markets, and improved compliance with sustainability standards, ultimately increasing their incomes and market competitiveness.

Through a feasibility and needs assessment, the project will identify suitable digital solutions, assess farmers' digital readiness, and map existing initiatives and potential technology partners. Based on these findings, a Challenge Fund will be established to incentivise local innovation and private sector engagement in digital agroecology solutions.

287. By strengthening digital market linkages, promoting traceability, and supporting farmer-focused technological capacity-building, this output will enhance smallholder farmers' resilience to climate and economic shocks. Digital tools will enable better decision-making, reduce transaction costs, and facilitate access to financial services, contributing to more climate-resilient and economically sustainable farming systems.

Activity 4.2.1: Conduct a feasibility and needs assessment for digital technologies, including digital traceability and market access systems

288. To facilitate the integration of digital technology into agroecological farming systems in the project target area, a comprehensive feasibility and needs assessment will be conducted. This assessment will evaluate the digital literacy levels and technological readiness of farmer cooperatives to adopt digital solutions, such as blockchain-based traceability solutions and digital market platforms.[65]

289. The assessment will also map existing digital traceability and market access initiatives in Cambodia and the broader region, drawing lessons from successful models such as BlocRice in Cambodia and My Xuong Mango Cooperative in Vietnam. Additionally, it will identify and engage potential technology partners, such as blockchain service providers, certification bodies, agri-businesses, and export market actors, to explore opportunities for collaboration.

65 This assessment will be done in conjunction with the assessments under Output 1.3, sharing resources to ensure efficiency and avoiding duplication of efforts.

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290. A key component of this assessment will be an evaluation of how blockchain and other digital technologies can support certification tracking (for example, organic, fair-trade, and sustainability verification) and contribute to carbon footprint monitoring. It will also assess potential barriers to adoption, such as cost, accessibility, and user-friendliness.

291. The assessment findings will inform the design of the Challenge Fund, ensuring that its selection criteria are realistic, relevant to the local context, and compatible with existing digital agricultural advisory platforms, particularly Khmer Agriculture Suite (KAS).

Activity 4.2.2: Establish the challenge fund for digital agroecology solutions

292. Following the feasibility and needs assessment, a Challenge Fund will be launched to catalyse local innovation in digital solutions for agroecology. This fund will incentivise private sector engagement in sustainable, climate-resilient agroecological value chains by supporting digital tools that enhance market access, transparency, and traceability.

293. The challenge fund will operate through two distinct funding windows:

i) Export markets — Supporting solutions that enhance competitiveness of sustainable rice, cashews, and mangos in international markets.

ii) Local tourism markets — Promoting sustainable agricultural products and non-timber forest products (NTFPs) for domestic and eco-tourism markets.

294. Private entities, NGOs and CSOs will be invited to submit proposals for the development of innovative digital solutions for the agroecological value chain. At least one initiative from each category will be selected based on the feasibility, level of innovation and potential impact of their proposed approach. The winning entities will be awarded a grant to fully develop and implement the proposed system. These grants will be issued in tranches, with a portion provided up front to support development, and the remainder issued on delivery of the digital solutions. As part of the award, the project will also provide technical assistance to the winning entities to operationalise their solutions, ensuring that they are fully integrated into the national systems, including KAS, and deliver on the promised market-development benefits.

295. The selection process will take place in two phases:

- Phase 1 — Concept submission: Applicants submit an idea note outlining their proposed digital innovation concept. Based on these submissions, three candidates form each funding window (six in total) will be shortlisted to advance to the next phase.
- Phase 2 — Proposal development: The six shortlisted candidates will receive a small grant to further develop their concepts into detailed, implementable proposals. Final selection will be based on these proposals, with at least one solution chosen per category.

296. While the final selection criteria will be refined during the assessment under Activity 4.2.1, several provisional criteria have been identified to guide the selection process. These include mandatory criteria that are essential for realising the proposed impact, and flexible criteria that highlight potential innovations that could be integrated into the proposed solutions. Specifically, to achieve the desired impact, the proposed solutions *must*:

i) focus on sustainably produced and environmentally friendly commodities;
ii) strengthen market linkages between farmers, buyers, and value chain actors;
iii) include a digital traceability system (for example, blockchain with QR-code tagging);
iv) include an outreach programme to build farmers' and producers' digital literacy and technological capacity;
v) incorporate the farmers and producers in Siem Reap Province, who are the target project beneficiaries; and
vi) ensure compatibility with the Khmer Agriculture suite (KAS) for seamless integration.

297. In addition to the abovementioned mandatory criteria, several other desirable features/innovations have been identified that could be integrated into the digital solutions to achieve the desired benefits. These include the ability to:

i) facilitate sustainability certification (for example, GAP, Organic, Fair Trade);
ii) integrate with other value chain actors (for example, agri-businesses, post-harvest storage and processing, cold chain services providers and other distributors); and

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iii) link farmers and other value chain actors with financial services (for example, credit, insurance, or digital payment solutions).

298. Following the finalisation of selection criteria, a call for proposals will be issued and widely disseminated.

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

299. Linking closely to the robust decision-support tool (DST) developed under Output 1.1, the project will establish an integrated knowledge management system (KMS) managed by the Ministry of Environment at the national level. This KMS will be embedded within **Cambodia's Environmental Management Information System (CEMIS) and designed to be interoperable with** other sectoral knowledge systems, including the agricultural knowledge systems being developed under the PEARL project as well as **UNDP's other national and** global knowledge platforms.

300. The platform will serve as the central repository for capturing, storing, and disseminating project research outputs, lessons learnt, and best practices, thereby enhancing decision-making through cross-sectoral collaboration. In addition, a detailed, gender-responsive communication strategy and action plan will be developed to target local communities, government officials, and private sector stakeholders through various media channels. This integrated approach will facilitate the replication and scaling of climate adaptation interventions both nationally and globally.

Activity 4.3.1: Establish a knowledge-management system to disseminate project-generated knowledge

301. This activity will develop a comprehensive KMS — managed by the Ministry of Environment — to capture, store, and disseminate all project-related knowledge, including research outputs, case studies, and lessons learnt from pilot interventions. All data stored on the KMS will be gender disaggregated. The KMS will include clear SOPs for data collection, processing and storage, ensuring that the system is interoperable with other knowledge systems — such as the agricultural knowledge system under the PEARL project — to foster cross-sectoral collaboration and integrated decision-making. While the KMS will be hosted and operated by MoE, the cross-sectoral nature of integrated watershed manage will necessitate collaborative efforts in data collection and management. To this end, the SOPs will clearly define the roles and responsibilities of relevant stakeholders — including national and provincial administrations, project management teams, research institutions, NGOs, and CBOs — in collecting, processing and sharing data from various sectors. The KMS will closely link with the research initiatives under Outputs 4.1 and 4.2, as well as the monitoring and evaluation systems under Output 5.1.

Activity 4.3.2: Develop an online platform linked with national knowledge hubs and UNDP's global networks

302. To maximise the reach and impact of the KMS, an online platform will be developed as the public interface for knowledge dissemination. **This platform will connect seamlessly with national CEMIS information system and UNDP's global knowledge** platforms, enabling the exchange of data, tools, and resources across multiple sectors. The online portal will feature user-friendly, interactive dashboards, discussion forums and advanced search and filtering options to enable decision-makers to access critical information quickly. This will include full integration of the DST (Output 1.1), with real-time updates supporting integrated decision-making across sectors such as environmental management and agriculture. The platform will be customised to reflect local Cambodian priorities and will support interoperability with existing systems, ensuring that users from different sectors — government, academia, and the private sector — can collaborate effectively. This integrated portal will thus serve as a catalyst for scaling climate adaptation interventions by making critical knowledge accessible to a wide range of stakeholders. The platform will also support local languages and culturally relevant content, ensuring inclusivity and ease of use for all stakeholders.

Activity 4.3.3: Develop a detailed, gender-responsive communication strategy and action plan

303. This activity will create a comprehensive communication strategy and action plan that targets diverse stakeholder groups with tailored messaging. Developed in close consultation with government agencies, local communities, and private partners, the strategy will ensure that knowledge products and project outcomes are communicated in a culturally sensitive and gender-responsive manner. The action plan will specify clear communication objectives, target audiences, and a media mix that includes social media campaigns, printed publications, webinars, and multimedia content such as videos and podcasts. Special emphasis will be placed on reaching vulnerable groups and ensuring that all knowledge products are gender disaggregated. A robust monitoring component will be embedded in the strategy to evaluate the effectiveness of outreach efforts and adapt messaging

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as necessary throughout the project lifecycle. Please see the project's stakeholder engagement plan (Annex 8) for details on relevant stakeholder groups that will be involved in the project's communication. The communication strategy will be included in the Indigenous Peoples Plan[66], which will focus on the integration of ethnic minorities.

Activity 4.3.4: Conduct an outreach programme to share knowledge and lessons learnt

304. To ensure that the insights generated by the project are effectively shared and utilised, an extensive outreach programme will be implemented. This programme will be directly linked to the communication strategy and will include a series of targeted events such as workshops, seminars, and community forums across various provinces, tailoring messaging to various groups. It will utilise both digital channels — through the online platform and social media — and traditional media, including radio, television, and print, to ensure broad dissemination of project outcomes. The outreach initiative will produce and distribute a range of knowledge products, including publications, videos, podcasts, and infomercials that document case studies, best practices, and success stories in climate adaptation and sustainable watershed management; as identified in the communication strategy and action plan. Regular feedback sessions will be held to refine the outreach strategy and ensure that the knowledge shared meets the needs of all stakeholders, ultimately fostering the replication and scaling of effective climate adaptation interventions. The outreach programme will also link with the inter-administrative coordination processes established under Component 1, ensuring that WMCs in other provinces are aware of, and using the information to replicate successful actions.

Output 4.4: Scaling strategy developed to replicate IWRM practices across other provinces of the TSB

305. While the project will focus its direct interventions in Siem Reap and the Phnom Kulen landscape, its long-term objective is to catalyse the replication of Integrated Watershed Management (IWM) practices across other provinces within the Tonle Sap Basin (TSB). To achieve this, the project will develop a scaling strategy that outlines clear pathways for expansion, including the specific actions, institutional responsibilities, and potential finance mechanisms required to sustain and replicate project successes.

306. The scaling strategy will be designed to integrate into existing national and provincial government programmes, ensuring that it aligns with Cambodia's broader environmental and economic policies. Additionally, it will leverage the knowledge management system (KMS) developed under Output 4.3, ensuring that best practices, decision-support tools (DSTs), and relevant policy frameworks are accessible to stakeholders across multiple governance levels. Through technical assistance, the project will also equip key government ministries with the necessary expertise and resources to incorporate IWM principles into future watershed management programs. By establishing clear institutional roles, securing financial pathways, and embedding adaptive management practices, the scaling strategy will create a roadmap for sustainable and long-term replication of IWM practices across the TSB.

Activity 4.4.1: Identify national and local government programmess for scaling and integrate them into the KMS

307. A key first step in scaling IWM approaches across the Tonle Sap Basin (TSB) is mapping out existing national and provincial programmes that could serve as vehicles for upscaling. This activity will involve:

- conducting a comprehensive review of government initiatives, policies, and funding mechanisms related to watershed management, water governance, climate resilience, and biodiversity conservation;
- engaging with national and provincial agencies to identify relevant sectoral programs under ministries such as the MoWRAM, MoE, MAFF, and MEF.
- mapping international and public-private partnership (PPP) initiatives that could provide additional financing or technical support for scaling efforts.

308. All identified programs will be compiled into an easily accessible and searchable database, which will be integrated into the project's KMS. The database will provide policymakers and development partners with a structured overview of existing programs, funding opportunities, and best practices, facilitating informed decision-making and targeted investment in IWM scaling efforts.

Activity 4.4.2: Develop a gender-responsive scaling strategy based on lessons learnt from the project

66 To be developed by at project inception based on the framework outlined in the ESMF (Annex 9)

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309. Building on the insights gained from project implementation, this activity will develop a scaling strategy that provides a structured approach for replicating IWM practices across other TSB provinces. The strategy will:

- synthesise lessons learnt from project activities in Siem Reap and Phnom Kulen, including successes, challenges, and factors influencing sustainability;
- identify the most effective governance structures for managing IWM expansion, including the role of WMCs, provincial governments, and inter-ministerial coordination bodies;
- outline specific, time-bound actions required for scaling, with clear institutional responsibilities for national, provincial, and community-level actors;
- assess financial mechanisms available to support scaling, including public budget allocations, climate and biodiversity finance, blended finance models, and private sector partnerships; and
- provide guidance on adaptive management, ensuring that new initiatives are flexible, evidence-based, and responsive to emerging challenges in water governance and climate resilience.

310. The scaling strategy will be designed to be institutionalised within national development planning frameworks, ensuring government ownership and long-term sustainability beyond the lifespan of the project.

Activity 4.4.3: Provide technical assistance to government ministries for scaling IWM approaches

311. To support the implementation of the scaling strategy, the project will provide targeted technical assistance to key government ministries and agencies. This will include:

- training relevant institutions on the use of the project's decision-support tools (DSTs) and knowledge management resources, ensuring that scaling efforts are informed by data-driven planning and risk assessments;
- assisting ministries such as MoWRAM, MoE, and MAFF in the design of new programs, funding proposals, and policy frameworks that align with the scaling strategy;
- facilitating cross-sectoral coordination mechanisms between water, agriculture, environment, and economic ministries to promote integrated approaches to watershed management; and
- supporting the alignment of national budgeting processes to mobilise funding for IWM scaling, including identifying opportunities for international climate and biodiversity finance.

312. This technical assistance will ensure that government agencies have the institutional capacity, tools, and financial resources required to independently sustain and expand IWM best practices, securing long-term resilience in water and land management across Cambodia.

Component 5: Monitoring, Evaluation and Learning

(Total Cost: US$ 868,152; GEF project grant requested: US$ 197,541; Co-financing: US$ 443,268)

Outcome 5: Lessons learnt 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

313. By targeting on-the-ground implementation in the SSR watershed, 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. While Component 4 will engage in new research and innovation — as well as establishing a KMS to collate and disseminate knowledge — actions under Component 5 will ensure that the proposed project is smoothly implemented, and that all lessons learnt through this implementation are adequately monitored, evaluated, and integrated into the KMS. 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.

Output 5.1: Monitoring, Evaluation and Learning system established to collect and curate lessons learnt from project activities

314. To ensure that project interventions are measurable, adaptive, and scalable, a structured Monitoring, Evaluation, and Learning (MEL) system will be developed. This system will integrate with the system being developed under ER-IP, bringing the added

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dimensions needed for tracking climate change adaptation-related results. The system will define clear processes, roles, and responsibilities for tracking environmental and socio-economic outcomes, ensuring that lessons learnt inform both adaptive management in target sites and the replication of successful approaches across Cambodia and beyond. The MEL framework will align with UNDP and GEF policies, systematically collecting, analysing, and curating data, while integrating findings into the Knowledge Management System (KMS) under Output 4. By embedding a structured learning mechanism, this output will facilitate evidence-based decision-making, enabling policymakers and practitioners to refine watershed management strategies and scale up climate adaptation interventions effectively.

Activity 5.1.1: Design the Monitoring, Evaluation, and Learning (MEL) Framework and System

315. The project will develop a comprehensive MEL framework that defines indicators, data collection methodologies, reporting structures, and feedback loops. The system will track environmental and socio-economic benefits, assess progress against the Gender Action Plan and Stakeholder Engagement Plan, and ensure compliance with environmental and social safeguards. Roles and responsibilities will be clearly assigned across the Project Management Unit (PMU), government agencies, and implementing partners, ensuring systematic data collection and evaluation. This framework will align with UNDP and GEF M&E policies and establish protocols for regular reporting, verification, and integration into the KMS, ensuring that insights are captured and accessible for replication and scaling.

Activity 5.1.2: Develop Standard Operating Procedures (SOPs) for Data Collection, Analysis, and Reporting

316. To operationalise the MEL system, the project will establish Standard Operating Procedures (SOPs) that provide clear guidance on data collection tools, responsibilities, reporting timelines, and quality assurance mechanisms. These SOPs will outline how information flows from field-level monitoring to national reporting, ensuring consistency and accuracy in tracking project impact. The SOPs will also include adaptive management protocols, enabling real-time adjustments to project activities based on M&E findings. Special attention will be given to integrating MEL processes with existing national monitoring frameworks, ensuring alignment with broader environmental and development objectives.

317. By establishing a robust, standardised, and transparent MEL system, Output 5.1 will create a solid foundation for tracking project impact, supporting continuous learning, and facilitating the scaling of best practices in integrated watershed management and climate resilience.

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

318. This output ensures effective project coordination, adaptive management, and compliance with environmental and social safeguards. A Project Steering Committee (PSC) will oversee strategic direction and monitoring, while a Project Management Unit (PMU) will manage day-to-day implementation. The project will operationalise the Gender Action Plan, Stakeholder Engagement Plan, and Indigenous Peoples Plan, ensuring inclusive participation, particularly for Indigenous Peoples and Local Communities (IPLCs).

319. Monitoring and evaluation will track progress against key indicators, integrating findings into the Knowledge Management System (KMS) to support learning and scaling. Environmental and social risks will also be regularly assessed and mitigated, ensuring compliance with safeguards. Finally, independent mid-term and terminal evaluations will provide external validation, guiding necessary course corrections to maximise impact and sustainability.

Activity 5.2.1: Establish a Project Steering Committee and Project Management Unit.

320. To tie the project components together, a proactive steering committee (PSC) will be established. The steering committee 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 learnt through the previous year's implementation and subsequent monitoring. Annual reviews and supervisory missions will be conducted to ensure project activities are on the right course and appropriate timely adaptive measures are taken depending on evolving circumstances and needs. In addition to the PSC, a project management unit will be established, headed by a National Project Manager (PM) who is responsible for the overall day-to-day management of the project on behalf of the Implementing Partner, including the mobilisation of all project

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inputs, supervision over project staff, responsible parties, consultants and sub-contractors. Further details on the PSC and PMU are presented in Section VII.

Activity 5.2.2: Implement the Gender Action Plan, Stakeholder Engagement Plan and undertake a review of the Social Environment Safeguard and project risk management.

321. 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 on the basis of the ESIA/ESMP and integrated into the annual work plan. An environmental and social safeguard specialist on the PMU will regularly monitor the implementation of project activities against the relevant social and environmental plans and frameworks to ensure that actions are inclusive, gender-responsive, and involve full participation of IPLCs. Monitoring will also check for compliance with ESS and project risk mitigation, as well as identifying and mitigating against any new risks that arise during implementation.

322. Gender and social engagement plans will also be reviewed and refined, and an Indigenous Peoples Plan will be developed, 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.

Activity 5.2.3: Monitor project activities and report on results.

323. Project implementation will be regularly monitored based on the M&E Plan presented in Section VI. Resulted on the monitoring will be reported to UNDP and GEF on an annual basis as part of the GEF PIR and UNDP annual reporting, and key findings will be integrated into the project knowledge management systems. The PMU will regularly assess the progress against targets and adjust approaches as necessary to achieve full impact. Periodic project progress reports and implementation reports will be prepared in accordance with UNDP and GEF guidelines, tracking the project results against the indicators and targets outlined in the project results framework. Project progress and implementation reports will inform stakeholders of the project results including progress in gender responsive actions and stakeholder engagement.

Activity 5.2.4: Conduct independent mid-term review and terminal evaluation and implement mid-term and terminal evaluation.

324. In keeping with GEF and UNDP requirements, a project Mid-term Review will be undertaken to assess the extent to which project activities have progressed, examine the prospect of achieving the planned project results, and recommend any course corrections or modifications necessary to ensure the achievement of the project results within the lifetime of the project.

325. Independent reviews will be conducted following UNDP and GEF guidelines at the mid-point of the project, and at the project close. The PMU will adjust approaches based on recommendations from the review to maximise efficiency and correct course should implementation not be reaching its full intended impact. Terminal Evaluation will be carried out, no later than three months before the end of the project.

326. Agreement on intellectual property rights and use of the logo on the project's deliverables and disclosure of information: To accord proper acknowledgement to the GEF for providing grant funding, the GEF logo will appear together with the UNDP logo on all promotional materials, other written materials like publications developed by the project, and project hardware. Any citation on publications regarding projects funded by the GEF will also accord proper acknowledgement to the GEF. Information will be disclosed per relevant policies, notably the UNDP Disclosure Policy[67] and the GEF policy on public involvement[68].

Partnerships

327. The project will build on and create partnerships with ongoing investments to maximise the impact of the GEF investment and achieve anticipated results. The core project partnership is the integral link between the LDCF project and the ER-IP child project (Restoring ecosystems for sustainable development in the Tonle Sap Basin and Siem Reap/Phnom Kulen landscape – UNDP, USD7.8M, 2025-2029). The RGoC in partnership with UNDP has developed both projects in parallel, with a central focus on complementary. The ER-IP child project will work synergistically with the LDCF project to build resilience of communities in Cambodia. Both projects will be implemented in parallel (offset by 1 year) and will target the same geographical area — but

[67] See http://www.undp.org/content/undp/en/home/operations/transparency/information_disclosurepolicy/
[68] See https://www.thegef.org/gef/policies_guidelines

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consider different aspects of the development challenge, with ER-IP focused on land degradation and biodiversity, and the LDCF project focussing specifically on the additional climate change challenges. Several elements of the LDCF will be directly implemented in conjunction with EP-IP interventions, sharing resources to achieve common, integrated goals – for example, in revising the Tonle Sap Basin Watershed Restoration, Rehabilitation, and Conservation Plan

328. Other key partnerships and their relevance to the project are listed below:

- Private Sector:
  - Close engagement with the private sector will be critical for the sustainable impact of the proposed project. In particular, private entities in the tourism and agribusiness sectors will be key stakeholders in market development, as well as the establishment of public-private-community partnerships for sustainable enterprise growth nder Output 3.4. Several potential partners have already indicated interest in supporting, including various entities representing the tourism and hospitality industry in Seam Reap who are already engaging with communities to try and establish green destination ecotourism offerings. The project will further aim to engage with the private sector actors who have independently developed the Siem Reap River Master Plan, which seeks to restore a 5km stretch of the Seam Reap River as it runs through the town. These partnerships will ensure that the project impacts endure beyond the project, as well as unlocking future investment.
- Local NGOs:
  - Several local NGOs are active in the project area that will provide potential partners for project implementation – particularly in terms of community outreach and livelihood development. These organisations – which have varied mandates ranging from biodiversity conservation, to tourism, livelihood development and agriculture — not only understand the local context, but also have ongoing programmes into which the knowledge generated by the project can be integrated. Several local NGOs in Siem Reap Province have been identified that provide agricultural extension and advisory services, including Agrisud International, GRET, Green Farmer Siem Reap (GFS), and Trailblazer Cambodia Organization (TCO). These organisations specialise in sustainable agroecological agriculture practices, farmer capacity building, local value chain development, and agricultural cooperative formation. They have strong expertise in agroecology and community-based approaches, as well as proven experience in delivering hands-on training and fostering strong relationships with local farmer groups.
- Communities:
  - Strong community ownership and engagement will be essential for the successful implementation of the project. In this sense, local communities in the target sites will be brought on as active partners in the implementation of project activities. These partnerships will be managed through local leadership and representative organisations for different community interest groups. Communities will further be connected with private sector partners and government agencies to develop the PPCPs that will underpin the financial sustainability and livelihood development aspects of the project.
- Other ongoing/planned initiatives:
  - *Public-Social-Private Partnerships for Ecologically-Sound Agriculture and Resilient Livelihood in Northern Tonle Sap Basin (PEARL)* – FAO, USD42.8M, 2023-2029: PEARL aims to enhance the climate change resilience of smallholder farmers and local communities in the northern areas of the TSB by increasing their access to growing premium market segments while using their improved market access to incentivise their transition to climate-resilient practices, mainly through effective public-social-private partnerships. Outcome 4 of the proposed project will look to partner with PEARL to maximise opportunities for market development, while support in the agricultural sector will draw on the agrometeorological advisories for products such as cashew and other high-value NTFPs. Lessons will also be drawn from PEARL to enhance opportunities for PPCPs and finance under Outcome 3, while the two projects will complement each other in expanding the area of restoration across the TSB.
  - *Agriculture Service Programme for an Inclusive Rural Economy & Agriculture Trade (ASPIRE AT)* – IFAD, 2022–2030, $47.9 m from IFAD & $60 m from European Investment Bank: The ASPIRE-AT 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 the 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 primary focus — with interventions targeting producer organisations for investments in larger infrastructure developments, as well as providing credit lines for market development. The proposed LDCF project will complement and partner with this initiative by building the adaptive capacity of the most vulnerable smallholder farmers, introducing on-farm practices that will increase resilience to droughts and floods, as well as connecting climate-resilient products to markets and catalysing private sector

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investment to support smallholder farmer 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.

- *Cambodia Sustainable Landscape and Ecotourism Project (C-SLEP)*[69] Phase 2. The project will seek to partner with World Bank to realise potential synergies and collaboration with their ongoing efforts in the country. The first phase of C-SLEP is ending in 2025, but is earmarked for a second phase to begin before 2027. This alignment centres on the shared focus on protected areas management, reforestation, and sustainable livelihoods — particularly regarding ecotourism and NTFP value chains. The lessons learnt and outputs from C-SLEP have already been used to shape the development of sustainable finance under Component 2, and will continue to engage during implementation to operationalise sustainable finance and foster private sector partnerships.
- *Tonle Sap Poverty Reduction and Smallholder Development Project* Phase 3: Asian Development Bank (ADB) is currently looking into options for a third phase of this project, with Phase 2 having closed in 2024. Phase 3 will likely include Siem Reap, with the intention to establish connections between agriculture markets, businesses and smallholder farmers, including support for accessing international markets by maximising the benefits of road infrastructure development in the country. Partnerships will be sought to link the project value chains – particularly for agroforestry products and NTFPs – with the market development initiatives supported by ADB.

Co-financing source	Co-financing type	Co-financing amount	Included in project results?	If yes, list the relevant outputs
Ministry of Environment	In-kind	US$ 8,000,000	No	
United National Development Program	In-kind	USD 7,000,000	No	

69 Phase 1 (2019–2025) received USD53.16 M funding through WB and GEF.

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Docusign Envelope ID: FDE8BF00-9551-8969-83C0-C47F39DD9F48

Risks and Assumptions

GEF RISK CATEGORIES	RISK ASSESSMENT	RISK CATEGORY	RISK RATINGS	MITIGATION MEASURES
		CONTEXT		
Climate	The key climate-related risks identified include extreme temperature, extreme precipitation and flooding, drought, and strong winds. Such events may impact the implementation of on-the-ground NbS interventions. (For more details, see Annex 26: Climate and Disaster Assessment). For example, during extreme rainfall events, flooding and erosion could uproot newly planted trees, or damage equipment. Access to forest areas may also be impacted following heavy rains. Droughts may also impact the survival of tree seedlings, especially at the early stages of growth. Extreme temperatures could also pose a health risk to workers.	Social and Environmental	Moderate	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. The timing of extreme temperatures will also be considered, and work schedules will be adjusted to maintain safe working environments.
Environment and Social	Overall, the SESP risk rating for this project is Substantial (A total of 11 risks have been identified: 1 risk is rated as Substantial, and 10 risks are rated as Moderate). The substantial risk relates to impacts on the human rights, lands (and land-tenure arrangements), natural resources, livelihoods and traditional practices of indigenous peoples and other vulnerable and marginalised communities. A lack of culturally-appropriate consultation processes to secure Free, Prior and Informed Consent of project-affected indigenous peoples is a cross-cutting cause of this risk.	Social and Environmental	Substantial	To mitigate the identified risks, a scoped SESA is required for Output 1.2 and 1.3, as detailed assessment of the cumulative project-wide risks under the upstream planning, policy and strategic components. An Action Matrix will report the actions to be implemented based on the SESA findings. ▪ A scoped ESIA for Outputs 2.1, 2.2 and 3.3 will be developed during the first year of project implementation. ▪ An ESMP will be developed within the first year of project implementation, based on the ESIAs findings. ▪ To manage specific risks related to economic displacement and livelihoods a Livelihoods Action Plan will the integrated in the ESMP. A Waste Management and Pesticide/Chemicals Management Plan will be developed and integrated in the ESMP. To manage the risk related to impacts on Cultural Heritage, the mitigation measures will be integrated into the ESMP. ▪ An effective, transparent, free-to-access project-level grievance redress mechanism will be put in place to ensure that all issues and concerns will be reported, discussed and addressed.
Political and Governance	There is strong political support for the project. However, capacity constraints are currently impacting governance of watersheds in the TSB, particularly in terms of coordination actions between multiple sectors.	Political	Low	Component 1 of the project will directly address governance risks by building capacity and strengthening policy alignment. This will include providing policy briefs on the integration of climate resilience into national watershed management strategies and on-site training to decision-makers across various sectors involved in

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				watershed management on the concepts of integrating climate resilience into watershed manage, including the benefits of doing so for various sectors and processes for collaborative action and inter-sectoral coordination.
INNOVATION				
Institutional and Policy	Given the multi-sectoral nature of IWM, effective coordination will be critical. There is a risk that the authority of coordination structures is not fully recognised and that siloed management actions remain the norm – including uncoordinated actions towards competing priorities. This includes the risk the community and private sector interests are not adequately represented in the decision-making process and therefore may not fully buy in to the sustainable approaches promoted under the IWM approach. There is also a risk that policy briefs developed under Outcome 1 are not fully adopted and translated into action by decision makers.	Operational	Moderate	The project will draw on efforts under the closely linked ER-IP Project that are designing comprehensive institutional and coordination arrangements for IWM that build on existing structures that are recognised by relevant institutions. The capacity of these authorities will be strengthened to better facilitate cross-sectoral participation in the decision-making process, including ensuring adequate representation form different affected groups (such as private sector, community, and vulnerable groups). Policy briefs will be developed using a stakeholder-led approach, with extensive consultations underpinned by a multi-sectoral policy review. Involving decision makers in this process will promote ownership of the concepts put forward and the briefs. Decision makers will further be trained on the concepts of future climate risk and the implementation of adaptive practices. Effective integration of climate resilience into IWM approaches promoted through the policy briefs will also be enhanced through the development of a decision support tool.
Technological	The decision support tool being developed under Outcome 1 is reliant on the effective acquisition and processing of suitable data to develop advisories that will guide decision makers. There is a risk that such data is not adequately captured through the project knowledge and monitoring systems, or that data from outside sources – including scientific research and lessons from other initiatives – are not adequately captured into CEMIS. There is also risk that the decision support tool does not adequately integrate information from different sectors to enable decisions that are coordinated and complementary between sectors.	Strategic	Moderate	The MEL framework being developed under Outcome 5 is structured to actively promote and guide the collection of data to be integrated into CEMIS to underpin the DST. Experts with detailed knowledge of data integration will be procured to ensure that the data processing meets the requirements to enable decision support recommendations that account for the needs and priorities of different sectors. Moreover, the assessments under Output 1.3 and Outcome 4 will be closely coordinated with the MEL system under Output 5.1, as well as the DST under Output 1.1 to ensure that all knowledge systems are fully integrated and compatible, with focus on interoperability.
Financial and Business Model	The blended finance mechanisms proposed under Output 2.3, which is a core component of the financial sustainability of the landscape-level NbS initiatives in Siem Reap, is reliant on effective partnerships between the public sector, private sector, donors and communities, and the willingness of various actors to engage with the mechanism. There is a risk that private partners and other donors will not actively engage with the mechanism, resulting in continued siloing of investments.	Financial	Moderate	The design of the blended finance mechanism will involve close consultation with all interested parties. Representatives of government institutions, private sector, donors and affected communities will be included in the co-development of the framework and roadmap that will underpin the operationalisation of the mechanism, including in the decision-making process to ensure that the actions funded through the mechanism not only

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	There is further risk that the market for sustainable livelihoods is not adequately developed or that commodities do not meet the required standards to appeal to premium markets that provide the additional financial incentive needed to scale climate resilient agricultural practices.			meet the needs of the community, but also contribute to the shared objectives of the various financial sources. To mitigate risks to livelihoods, communities will be training on the requirements for sustainable livelihoods, including business management and value chain development. A challenge fund will also be established to support the role of digital solutions in creating partnerships throughout the agroecological value chain.
EXECUTION				
Capacity for Implementation	Based on HACT assessment, the implementing partner (IP) is considered low risk.	Operational	Low	As the GEF Agency for the project, UNDP will provide oversight, ensuring that the project is implemented in accordance with the agreements signed with the implementing partner and laid out in the Project Document.
Fiduciary	To manage development project, the implementing partner applies its financial rules and regulations, which meet the level of standard required as evidenced by the fact that partner receives overall risk rating as "low" based on the Micro Assessment conducted. Yet, there is risk that the project would not be implemented in full compliance with the set rule and regulation due to staffs turn over, limited staff technical expertise in the relevant areas, issue in segregation of duty. This would lead to negative findings from the HACT follow up exercise (audit or spot check), hence would impede the implementation progress of the project.	Organisational	Moderate	Clear expectation on the performance in project financial resources management will be clearly communicated with the national partner focal team, e.g. ensuring staffs with the required level of technical expertise to play to role as finance focal person, full compliance with the set rule and regulation is required. In addition, as a preventive measure, list of the past common audit/spot checks findings will be shared with the national partner. Regular HACT exercise (e.g. spot check or audit) will be scheduled on yearly basis on the partner. Regular training to Government counterparts on financial management and reporting will be done
Stakeholder	The integrated approach proposed by the project requires active stakeholder engagement and coordination. This includes engagement across different sectors as well as between public entities, private sector and community groups. If stakeholders are not adequately engaged both in the decision-making process and the implementation of activities, there is a risk that interventions will not be owned or sustained. These risks extend to the potential economic displacement or disruption of cultural heritage for local communities, particularly if decisions for natural resource/watershed management do not account for the needs and traditions of local groups.	Strategic	Substantial	A comprehensive stakeholder engagement plan has been developed for the project, ensuring that all affected parties are adequately engaged throughout the implementation period. Implementation of this plan will also underpin the implementation of the various frameworks and actions plans identified under the ESMF.

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Overall Risk Rating (the highest risk rating becomes the overall risk rating)			Substantial	The substantial risk rating is primarily linked to the social risks that present in this project.

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Safeguards Rating

Substantial

329. The overall risk-rating for the project is 'Substantial'. (A total of 11 risks have been identified: 1 risk is rated as Substantial, and 10 risks are rated as Moderate).

330. To meet the SES requirements the following have been prepared: (1) Comprehensive Stakeholder Engagement Plan; (2) Gender Analysis and Gender Action Plan; (3) Environmental and Social Management Framework (with the Indigenous Peoples Planning Framework, the Process Framework and the Livelihood Action Framework as annexes); (4) Grievance Redress Mechanism; (5) Cultural Heritage Impact Assessment.

331. To mitigate the identified risks, a scoped SESA is required for Output 1.2 and 1.3, as detailed assessment of the cumulative project-wide risks under the upstream planning, policy and strategic components. An Action Matrix will report the actions to be implemented based on the SESA findings.

- A scoped ESIA for Outputs 2.1, 2.2 and 3.3 will be developed during the first year of project implementation.
- An ESMP will be developed within the first year of project implementation, based on the ESIAs findings.
- To manage specific risks related to economic displacement and livelihoods a Livelihoods Action Plan will the integrated in the ESMP. If needed, a Waste Management and Pesticide/Chemicals Management Plan will be developed and integrated in the ESMP. To manage the risk related to impacts on Cultural Heritage, the mitigation measures will be integrated into the ESMP.
- An effective, transparent, free-to-access project-level grievance redress mechanism will be put in place to ensure that all issues and concerns will be reported, discussed and addressed.

332. During implementation, the project will commission appropriately scoped Environmental and Social Impact Assessment (ESIA) and ESMP, including FPIC consultations and targeted at potential identified field-level impacts, and a Strategic Environmental and Social Assessment (SESA) for policy-level work. Potentially, during the first year of implementation, an Indigenous Peoples' Plan and a LAP will be prepared as part of the subsequent ESMP as required by ESIA/SESA assessment reports.

Stakeholder engagement

333. To ensure country ownership and the appropriateness of proposed solutions in the local context, the development of this project has been underpinned by a strong consultative process. The process was closely coordinated by the Ministry of Environment, working in full consultation and close engagement with other government entities, CSOs and other relevant stakeholders — particularly those who will benefit from and be directly involved in the implementation of the project (i.e., direct project beneficiaries) and those who may be impacted (positively or negatively) by the project. This includes a strong focus on engagements with local communities, women, and other marginalised groups that are not only key stakeholders, but also the primary beneficiaries of the project.

334. This stakeholder engagement will continue through the implementation period, ensuring that the views, concerns and needs of these beneficiary groups are adequately captured and addressed in planning. Engagements will further ensure effective information disclosure, as well as inclusion in monitoring, evaluation and learning throughout the project cycle and implementation of the gender action plan. The range of potential stakeholders is diverse and may include target beneficiary groups, locally affected communities or individuals, national and local government authorities, civil society actors, including non-governmental organisations (NGOs) (both domestic and at times international), Indigenous Peoples, politicians, religious leaders, the academic community, private sector entities, workers organisations, UN agencies and donors, and other special interest groups. Several key stakeholder groups have been identified for engagement during project implementation, including (see Stakeholders List in the Strategy section above):

- Individuals and groups already involved in project sectors.
- Women/women's groups, involved in the sectors targeted by the project.
- Youth and vulnerable groups, who are at risk of marginalisation.
- Any other marginalised (or at risk of marginalisation) groups who can be involved in the project.
- UNDP staff involved in similar projects implemented in Cambodia.
- NGOs and Civil Society Organisations (CSOs) that are active in the target areas.

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- University and Research institutions.
- National, regional and traditional leaders and authorities, through whom/which decision making and participatory planning will be coordinated.

335. Several engagement methods will be used, tailored to the nature of the engagement/stakeholder. These include interviews, formal meetings, focus group meetings, workshops, site visit, community networks, consultations with experts, and trainings and capacity building activities. A comprehensive stakeholder engagement plan, identifying specific engagement modalities for each stakeholder groups is presented in Annex 8.

336. The identification of key stakeholders for the project was made through a consultative process, ensuring that the interests of each group were well understood to effectively plan their participation in the project. The stakeholder engagement plan considered the following components: i) identification of stakeholders directly and/or indirectly affected by the project; ii) identification of stakeholder interests; iii) identification of stakeholders potential influence on project outcomes or operations; iv) consideration of the capacities of the various stakeholder groups to effectively participate in the stakeholder engagement activities (and identification of measures to support them where capacity is limited), v) identification of project-affected marginalised and disadvantaged stakeholders, including persons with disabilities.

337. *Free, Prior and Informed Consent (FPIC):* Free, prior and informed consultations will be carried out for each of the beneficiary/affected communities/villages and the respective communes, ascertaining their broad community support and determining the potential impacts and possible support under the Project. Further details on the specific FPIC requirements for each outcome are presented in the Indigenous Peoples Planning Framework.

338. At project inception, an environmental and social management plan will be developed which will address the need for FPIC, which will be further supported by the project's Grievance Redress Mechanism. See Annex 9 (ESMF) for more details.

South-South and Triangular Cooperation (SSC/TrC)

339. The project will actively promote South-South and triangular cooperation by facilitating knowledge exchange and collaboration with countries across Southeast Asia facing similar climate resilience and watershed management challenges. This will include engagement with regional institutions, such as the ASEAN Centre for Biodiversity and the Mekong River Commission, to share best practices and lessons learnt. The project's knowledge management system will be integrated with global and regional knowledge-sharing platforms, including the UN South-South Galaxy, PANORAMA, and UNDP's other global knowledge platforms, ensuring that successful models, research findings, and decision-support tools are widely accessible. Through these targeted actions, the project will create pathways for replication, adaptation, and scaling of successful interventions across the region.

340. In addition, to bring the voice of Cambodia to global and regional fora, the project will explore opportunities for meaningful participation in specific events where UNDP could support engagement with the global development discourse on climate-responsive watershed management and nature-based solutions. The project will provide regional cooperation opportunities with countries implementing initiatives involving nature-based solutions for climate adaptation and resilient livelihoods in similar geopolitical, social and environmental contexts relevant to the proposed project in Cambodia.

Gender equality and Women's Empowerment

341. The proposed project will seek to actively address gender gaps and promote gender equality and women's empowerment in the target areas. A gender analysis was conducted for the project, supported by a comprehensive gender action plan to ensure that the project is fully gender responsive. The main potential impacts and risks related to gender equality identified during the gender assessment are listed below.

The main possible **impacts and risks to gender equality,** identified through the gender analysis include the following points.

- Lack of involvement of women in the development of (Output 1.2) policy briefs and training on the integration of future climate risk into national and sub-national watershed management plans and of (Output 1.3) updated Tonle Sap Basin Watershed Restoration, Rehabilitation, and Conservation Plan integrating future climate risk and resilience needs.
- Lack of involvement of women in the participatory action plans and enforcement strategies for climate change adaptation in the riparian zones of the Steung Siem Reap (SSR) Watershed, including stakeholder dialogues to identify traditional/customary and cultural values/knowledge about watershed management, as well as climate hazards and vulnerabilities in the area, development of co-management strategies and actions for the nature-based solutions in SSR

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Watershed, and development and adoption of a detailed spatial map and zoning for SSR and PKNP governance to facilitate demarcation, land registration, and zoning of community-based ecosystem conservation, restoration, and rehabilitation.

- Difficult access for women to sustainable financing mechanism to support long-term financing of community-led Nature-based Solutions (NbS) initiatives.
- Lack of women involvement in public-private-community partnerships investments in NbS.
- Lack of women involvement in the knowledge management system that will be established by the project, with low level of consideration of women's knowledge and point of view on project activities and objectives.
- Lack of inclusion of women, girls and youth in the sharing of monetary and non-monetary benefits of the project.
- Lack of participation of women, girls and youth in decision-making processes.
- Exacerbation of discrimination against women, girls, and youth in project activities.
- Exclusion or low access of women, girls and youth to livelihood activities promoted by the Project.
- Lack of access of women and youth to coordination mechanisms which play a key role in the implementation of the project and in the achievement of the project objectives.

342. The main actions identified in the Gender Action Plan are developed around the project's gender mainstreaming strategy, which takes into account the differences between men and women in terms of needs, priorities, division of labour and access to knowledge and resources, and includes the following aspects:

- Ensure equitable representation of women and men in project activities and related groups that are established and/or strengthened under the project.
- Allocate targeted budgets and other relevant resources to activities that promote the active and meaningful participation of women, including in the monitoring and evaluation of these activities.
- Ensure that opportunities for women's active participation, training, skills and capacity building are identified and budgeted for in the relevant project outputs.
- Ensure that women and, where possible, key women's groups are consulted on the needs and priorities of project activities and/or interventions.
- Ensure that all strategic and planning documents are developed in consultation with women and/or key women's groups.
- Ensure equal opportunities for women in the recruitment of project implementation staff, including third party service providers (e.g. consultants).
- Promote and, where possible, ensure equal pay and benefits for women and men.
- Ensure that data collection and analysis are based on gender-disaggregated data, as well as in the M&E and learning process.

343. These actions will be achieved through the inclusion of women in the decision-making structures for the updating of the Tonle Sap Basin Watershed Restoration, Rehabilitation, and Conservation Plan as well as the participatory action plans for CCA in the SSR Watershed (under Outcome 1), alongside tailored support to women in developing sustainable livelihoods (under Outcome 3). Further actions have been identified in the gender action plan to ensure that all outputs are both gender sensitive and gender responsive. These actions include setting targets for inclusion of women in the planning and decision-making forums; active engagement with women and other vulnerable groups throughout implementation; addressing tenor-security issues for women involved in CPAs; and raising awareness through accessible mediums.

344. Further details on the gender context and the project's framework for gender-responsiveness can be found in Annex 10: Gender Analysis and Gender Action Plan.

Knowledge

345. The project will generate a comprehensive suite of knowledge products to document and disseminate lessons learnt, best practices, and technical insights from its interventions. These will include technical reports, policy briefs, and standard operating procedures on climate-resilient watershed management, nature-based solutions, and sustainable agriculture. A central knowledge management system (KMS) integrated into Cambodia's CEMIS platform will host a structured database of spatial data, decision-support tools (DSTs), and monitoring results, ensuring accessibility for policymakers and practitioners. The project will also develop multimedia resources such as instructional videos, infographics, and interactive web-based

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content to translate scientific findings into actionable knowledge for local stakeholders. Targeted outreach efforts will ensure that knowledge products are effectively shared through online platforms and community-based training sessions, enabling local actors to adopt and replicate successful adaptation strategies.

Innovativeness, Sustainability and Potential for Scaling Up

346. The project is highly innovative, combining blended and innovative finance mechanisms to support agribusiness development and climate-resilient watershed management in Cambodia. By leveraging public, private, biodiversity, and climate finance alongside payment for ecosystem services, the project employs catalytic matching grants, community-based revolving funds, and mini trust funds to de-risk investments and create sustainable financial flows. Digital technologies are central to this approach, with an advanced decision-support tool (DST) integrated into national systems like CEMIS, enabling real-time monitoring, data-driven planning, and cross-sectoral collaboration. A dedicated challenge fund will incentivise the development of digital innovations that further enhance climate-smart agriculture and ecosystem restoration, ensuring that agribusinesses can continue to scale and improve productivity. To ensure long-term sustainability, the project embeds capacity development and regulatory reforms into national planning structures, facilitating the transition of management responsibilities to local institutions and aligning with national climate adaptation strategies. With a clearly defined exit strategy — where donor support phases out and is replaced by locally managed financing mechanisms and revenue reinvestment — the project's interventions are designed to be self-sustaining, replicable, and scalable across the TSB, thereby ensuring that its impact endures well beyond the GEF grant financing period.

Digital Solutions[70]

347. The project will harness digital technologies to transform the planning and management of watershed and agricultural interventions, thereby enhancing the experiences of target beneficiaries and partners. By integrating an advanced DST into Cambodia's existing CEMIS framework, the project enables real-time monitoring of climate risks and adaptive management, providing local authorities and communities with actionable data for informed decision-making. A comprehensive, interoperable knowledge management system (KMS) will facilitate the sharing of best practices and lessons learnt across stakeholders, while interactive digital platforms — featuring dashboards, mobile applications, and online training modules — streamline communication and capacity building efforts. Additionally, a dedicated challenge fund will spur the development of innovative digital solutions to enhance market access for sustainably produced agricultural commodities and NTFPs, incorporating aspects of traceability and value chain development, incentivising further investment in climate-resilient agribusiness. Together, these digital innovations not only improve service delivery and stakeholder engagement but also drive the sustainable scaling of climate adaptation measures across the region.

IV. PROJECT MANAGEMENT

Cost Efficiency and Effectiveness

348. The project is designed to maximise results while optimising resource use through a multifaceted, evidence-based approach that builds on Cambodia's proven best practices in integrated watershed management and climate adaptation. The project approach is grounded in the concept of nature-based solutions (NbS) — a proven and cost-effective strategy for safeguarding and restoring critical ecosystems in river catchment areas and enhancing climate resilience of vulnerable communities. The approach leverages the inherent resilience and functionality of natural ecosystems to promote biodiversity, regulate water flow, and mitigate the impacts of climate change, while supporting sustainable livelihoods and uplifting rural communities.

349. Using a robust theory of change analysis that assessed the proposed solutions against the development challenge and climate change risks, the project identifies the most efficient pathways to deliver high-impact outcomes by targeting key leverage points such as public-private-community partnerships and the integration of digital decision-support tools into existing national systems. Moreover, partnerships with the private sector will leverage the skills and experiences of local entities to enhance market access for agribusinesses.

350. The project implementation will enhance cost effectiveness by aligning project activities with complementary initiatives — particularly with the ongoing ER-IP project — thereby enabling shared learning, risk mitigation, and economies of scale (see 'Partnerships' section above). In addition, the project plans to undertake joint operations in research, monitoring,

70 Please see the Guideline "Embedding Digital in Project Design".

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procurement, and capacity building with strategic partners, further reducing costs and enhancing overall project effectiveness. These measures, supported by lessons learnt from similar approaches in Cambodia and comparable contexts, ensure that the selected pathway is not only the most efficient option available but also adaptable and scalable for long-term, sustainable impact.

Project Management

351. The Ministry of Environment will appoint a National Project Manager to lead the implementation of the project at the Ministry's head office in Phnom Penh to ensure alignment with national priorities, as well as effective collaboration among relevant departments in the Ministry and between the Ministry and other national level institutions. S/he will be supported by an Administrative and Finance Assistant recruited by the project. The Ministry of Environment will also recruit a Project Field Coordinator and an Administrative Assistant to be based in Siem Reap Province to coordinate the implementation of the project on the ground. The project will recruit other positions on a part time basis to support project implementation (e.g. M&E Specialist, Safeguards and Gender Specialist, International Project Advisor).

352. The project site selection will be carried out during the inception phase of the project.

353. This project will be implemented in parallel with another recently approved, GEF funded, ER-IP project using a portfolio approach. This is expected to bring cost-savings in the management of the two projects, including shared missions and join contracts for project audits and other support services.

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V. PROJECT RESULTS FRAMEWORK

Contribution to the Sustainable Development Goal (s): *2, 5, 6, 13, 15*							
Intended Outcome as stated in the UNSDCF/Country Programme Results and Resource Framework: 2.1, 3.1, 3.3, 3.4							
Applicable Output(s) from the UNDP Strategic Plan: 2.1; 4.1; 4.2; 6.1; E.1, E.2, E.3							
Project title and Quantum Project Number: Building resilient livelihoods through nature-based solutions in the Tonle Sap Basin and Siem Reap/Phnom Kulen landscape (PIMS 9682)							
Objective and Outcome Indicators		**Data Source**	**Baseline**	**Mid-term Target**	**End of Project Target**	**Data Collection Methods**	**Risks/Assumptions**
Project Objective:	To build the climate resilience of local communities in the Tonle Sap Basin through an integrated watershed management approach, while conserving the natural and cultural heritage that sustains local livelihoods and societies						
	Mandatory Indicator 1: Number of direct project beneficiaries disaggregated by gender (individual people)	Survey summary reports (including methodologies and findings) Extension officer field reports with uptake verification Government or ministry publications (e.g., MAFF reports)	No-one has benefitted yet from project interventions	Total: 64,400 Male: 31,556 Female: 32,844	Total: 71,900 Male: 35,231 Female: 36,669 Number of youth benefitting: 11,819 Number of elderly benefitting: 6,639	Household surveys Field surveys by extension officers to confirm uptake of CRA/agroforestry practices National or sub-national statistics	Assumptions: 72% of the population has access to agricultural land. Average household size is 4.2. Average farm size is 1.5 ha. Population distribution is 49% male and 51% female in Siem Reap Province. Youth and elderly are a subset of the total. All farmers will have received training by mid-term. Beneficiaries of more resilient natural assets will realise benefits towards the end of implementation as the NbS interventions begin to have landscape impacts that enhance ecosystem services.
	Mandatory Indicator 2: Area of land managed for climate resilience (hectares)	Implementation reports Satellite imagery of restored sites Policy briefs	0 ha	Total: 31,565 ha 23,000 ha of agricultural land 6,815 ha of forests 750 ha of riparian zone	Total: 81,900 37,500 ha of agricultural land 42,900 ha of forests 1,500 ha of riparian zone	Site inspections Remote sensing Document review	Assumptions: Farmers commit to adopting CRA and sustainable, climate-resilient agroforestry on agricultural land. CF and CPA members commit to adopting sustainable, climate-resilient NTFP harvesting and production methods. The remaining 14,500 ha of agricultural land will be brought under improved management as the market incentives become operational. The remaining 35,785 ha of PKNP will be brought under improved climate-resilient

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							management as the government updates and implements the policy recommendations. Riparian zone restoration will average 25M along the course of 300km Risks: Communities do not adopt or maintain sustainable, climate-resilient practices after training and support is provided. Government does not implement adaptation recommendations as outlined in the policy briefs.
	Indicator 3: Number of policies/plans/frameworks/institutions to strengthen climate adaptation	Project-generated policy briefs Project-generate sub-national plan documents	0 policies/plans/frameworks	3 Sub-national plans	10 policies/plans developed and strengthened that will mainstream climate resilience 2 frameworks established for continuous monitoring, reporting and review of climate adaptation impacts 1 institutional partnership established 5 institutions with increased capacity to plan, implement, monitor and report for climate adaptation	Document review	Assumptions: The government will be committed to amending the 7 national policies, strategies and plans according to the resilience-enhancing recommendations in the policy briefs. The 3 sub-national plans will be prioritised early on to facilitate on-the-ground implementation; therefore, they will be complete by mid-term. Risks: The government does not amend the 7 national policies according to the recommendations.
	Indicator 4: Number of people	Training materials and modules	0 people trained	7,905 people trained	15,810 people trained[71]	Document review	Assumptions: All target beneficiaries attend the planned training and capacity-building events.

[71] As per the GAP, gender disaggregated targets will be set through the SES process that will be implemented at project inception phase, as part of the preparation of the ESMP related processes.

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	trained or with awareness raised	Workshop agendas and facilitation plans Workshop reports Attendance registers and feedback forms					
	Indicator 5: Number of private sector enterprises engaged in climate change adaptation and resilience action	Challenge Fund candidate proposals Meetings form selection meetings Financial records for payments form the challenge fund.	0 entities supported	At least 2 entities shortlisted	3 entities supported	Document review	Assumptions: Farmer cooperatives, agri-businesses, and technology service providers are willing to participate in the needs assessment and challenge fund process. There is sufficient interest from private sector actors and NGOs/CSOs to submit high-quality, innovative proposals in response to the call.
Project component 1	**Strengthened national and provincial land use planning and implementation capacities**						
Outcome 1 Strengthened capacity for coordination, planning and implementation of integrated watershed management at the national and provincial levels	Indicator 6: Capacity of decision-makers to integrate climate change considerations into watershed management	Capacity Development Scorecard 1 – No evidence of capacity 2 – Anecdotal/slight evidence of capacity 3 – Partial developed capacity 4 – Widespread, but not comprehensive capacity 5 – Fully developed capacity	Average score: 2.831	Average score: 3	Average score: 4.5	Stakeholder engagement/focus group discussions using a guided questionnaire focused mainly on climate change adaptation needs	Assumptions: The development of a DST and accompanying SOPs together with capacity building will strengthen institutional capacity for knowledge management and adaptation planning and implementation. National and sub-national government stakeholders actively participate in project activities. Risk: Lack of uptake of climate adaptation recommendations in the policy briefs.
Outputs to achieve Outcome 1	*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 Restoration, Rehabilitation, and Conservation Plan integrating future climate risk and resilience needs* *1.4. Participatory action plan and enforcement strategy for climate change adaptation in the riparian zones of the Steung Siem Reap (SSR) Watershed*						
Project component 2	**Investment in integrated watershed management, restoration and conservation, at scale**						

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Outcome 2 Strengthened resilience of communities in the Siem Reap/Phnom Kulen landscape through scalable nature-based solutions and sustainable finance	Indicator 7: Area of degraded forest ecosystems restored and number of water structures rehabilitated or established	Restoration sites Satellite imagery Implementation reports	0 ha	1,000 ha 9 water structures	2,174 ha 19 water structures rehabilitated or established	Site inspections Remote sensing Document review	Assumptions: National and sub-national authorities have the political will to support the restoration initiative. Local NGOs and CBOs have the technical capacity to implement restoration activities. CF and CPA communities take ownership of restoration efforts and long-term protection of restored areas under their jurisdiction. Risks: Political will and community ownership is insufficient to meet the restoration targets.
	Indicator 8: Number of tools developed to operationalise a blended finance mechanism that supports sustainable and long-term watershed management at the landscape scale	Minutes of stakeholder consultations Framework document for an integrated blended finance mechanism Final validated roadmap	0 tools	1 Blended finance assessment	1 Blended finance framework 1 implementation roadmap	Document review	Assumptions: There is sustained political will and commitment from national and sub-national government agencies to support blended finance approaches for watershed management. Private sector actors, financial institutions, and local communities are willing to engage in co-creation and co-financing of watershed management efforts. Relevant financial flow data, existing finance mechanisms, and lessons from prior initiatives are accessible and can inform the assessment and framework design. Ongoing and planned policy reforms under Outcome 1 are effective in improving the enabling environment for blended finance and private investment in NbS. Risks: Low private sector interest. Insufficient technical capacity in government or financial institutions.
	Indicator 9: Status of the Sustainable Livelihood Innovation Facility (SLIF).	SLIF application database Monitoring reports for successful proposals	SLIF not yet established	SLIF established and operationalised, with 100% of funds allocated and 50% of funds dispersed.	SLIF established and operationalised, with 100% of funds allocated and dispersed.	Document review Verification site visits Surveys	Assumptions: Sufficient private and community co-investment can be mobilised to complement the grant. Conservation enterprises generate community value and have local buy-in.

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							Risks: Enterprises may remain dependent on grants and fail to transition to credit or reinvestment. Co-investment from community/private sector may be lower than expected. Loan defaults may weaken revolving fund mechanisms. Low interest rates may not yield sufficient returns to support activities.
Outputs to achieve Outcome 2	*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 focusing on diverse, high-value tree species that benefit agricultural livelihoods and enhance carbon stocks* *2.3. Sustainable financing mechanism established and operational within the SSR Watershed to promote public-private-community partnership investments and support long-term financing of community-led NbS initiatives*						
Project 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	Indicator 10: Number of project-supported business models for sustainable agricultural and NTFP commodities available to local communities	Market analysis for key agricultural and NTFP commodities Minutes of IPLC consultations Business models for high-potential commodities Practical guidelines for business model implementation	Business models have been piloted, but limited reach to vulnerable communities	Market analysis complete	8 Business models and practical guidelines developed and uploaded to the relevant digital platforms	Document review Digital platform review	Assumptions: There is sufficient and growing demand at local, regional, or international levels for the selected agricultural and NTFP commodities to make value chain investment viable. National policies and regulatory frameworks support smallholder market participation and sustainable NTFP use. Basic infrastructure exists or can be improved to enable producers to reach markets effectively. Risks: Low or volatile market demand for selected commodities. Certification and traceability requirements are too costly or complex. Market power imbalances.

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Outputs to achieve Outcome 3	*3.1. Smallholder farmers trained in climate-resilient agricultural practices that improve productivity under water-stressed and flood-prone 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*						
Project component 4	**Knowledge, research and innovation**						
Outcome 4 Innovation in the management of watersheds across Cambodia enabled through high-quality knowledge, research and learning	Indicator 11: Status of National Capital Account system for ecosystem service valuation	Assessment Scorecard: 0 – No institutions established or NCA documents prepared 1 – Inter-ministerial coordination body established but NCA process not yet started 2 – Inter-ministerial coordination body established, NCA strategy and roadmap prepared and Ecosystem service accounts have been developed in physical terms for 1 watershed 3 – Institutional arrangements in place, Ecosystem Supply-Use Account for SSR Watershed complete and validated and knowledge products developed and uploaded to the KM platform 4 – NCA roadmap being implemented	Level 0	Level 2	Level 4	Document review Stakeholder interviews KM platform review	Assumptions: Key ministries are committed to participating in and supporting inter-ministerial coordination. There is political will to institutionalise Natural Capital Accounting and apply it in policy- and decision-making. Existing data and past valuation efforts are accessible and can be effectively leveraged. Biophysical data generated under Output 1.3 is of high quality, spatially disaggregated, and fit for purpose. Methods selected for monetary valuation are context-appropriate and supported by reliable data. Risks: Weak inter-agency coordination due to overlapping mandates, resource competition, or lack of clarity. Difficulty in assigning economic value to non-market services. Findings are not integrated into planning or investment decision, limiting their long-term impact.

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		and ecosystem service valuation informing decision making at the national level.					
	Indicator 12: Number of digital solutions for market access in agroecology developed through the Challenge Fund	Feasibility and needs assessment for digital technologies in agroecology Challenge Fund investment criteria Challenge Fund candidate proposals	Challenge Fund has not been established and digital solutions not operational in target areas.	Challenge Fund has been established, and at least two candidates have been shortlisted for Phase 2	2 digital solutions developed	Document review Stakeholder interviews	Assumptions: Farmer cooperatives, agri-businesses, and technology service providers are willing to participate in the needs assessment and challenge fund process. There is sufficient interest from private sector actors and NGOs/CSOs to submit high-quality, innovative proposals in response to the call. Government institutions are supportive of digital innovations in sustainable, climate-resilient agriculture and are willing to facilitate integration with KAS. Risks: High cost or complexity of blockchain and digital platforms may deter adoption or make solutions unfeasible for smallholders. Limited interest or capacity from the private sector to develop viable, market-ready digital agroecology solutions.
Outputs to achieve Outcome 4	*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 digital technologies developed for climate smart agriculture and agroecology value chains to enhance community and ecosystem resilience in the TSB4.3. Knowledge management and outreach strategies developed to facilitate the upscaling of climate adaptation interventions nationally, regionally, and globally* *4.4. Scaling strategy developed to replicate IWM practices across other provinces of the TSB*						
Project component 5	**Monitoring, Evaluation and Learning**						
Outcome 5 Lessons learnt curated through project M&E and disseminated	Indicator 13: Number of MEL tools developed and disseminated	Knowledge management platform, Research papers SOP Documents	0 MEL products	1 MEL Framework 1 SOP	1 MEL Framework 1 SOP	Document review	Assumptions: Lessons learnt are adequately captured and collated. Knowledge is properly tailored to user needs to enable adaptive management. Risks: Lessons from different sectors are not properly integrated, resulting in knowledge products that do not cover the holistic approaches required.

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both nationally and internationally to promote the scaling of interventions to other watersheds across Cambodia and the surrounding region	Indicator 14: Number of monitoring and evaluation reports rated Marginally Satisfactory or above	Annual PIRs Mid-Term Review Terminal Evaluation Report	0 annual PIRs 0 Mid- term Review 0 Terminal Evaluation	2 annual PIRs 1 Mid- term Review rated MUS or above 0 Terminal Evaluation	5 annual PIRs 1 Mid- term Review rated MUS or above 1 Terminal Evaluation rated MUS or above	Document Review	Assumptions: Project management unit is fully operational and has capacity for effective monitoring. Risks: Delays in project implementation reduce the level of impact, particularly in early stages of implementation.
Outputs to achieve Outcome 5	*5.1. Monitoring, Evaluation and Learning system established to collect and curate lessons learnt 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*						

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VI. MONITORING AND EVALUATION (M&E) PLAN

358. Project-level monitoring and evaluation will be undertaken in compliance with UNDP requirements as outlined in the UNDP POPP (including guidance on GEF project revisions) and UNDP Evaluation Policy **The UNDP Country Office is responsible for ensuring full compliance with all UNDP project M&E requirements including project monitoring, UNDP quality assurance requirements, quarterly risk management, and evaluation requirements.**

359. Additional mandatory GEF-specific M&E requirements will be undertaken in accordance with the GEF Monitoring Policy and the GEF Evaluation Policy and other relevant GEF policies[72]. The M&E plan and budget included below will guide the GEF-specific M&E activities to be undertaken by this project.

360. In addition to these mandatory UNDP and GEF M&E requirements, other M&E activities deemed necessary to support project-level adaptive management will be agreed – including during the Project Inception Workshop - and will be detailed in the Inception Report.

361. Minimum project monitoring and reporting requirements as required by the GEF:

Inception Workshop and Report

362. A project inception workshop will be held within 2 months from the First disbursement date, with the aim to:

a. Familiarise key stakeholders with the detailed project strategy and discuss any changes that may have taken place in the overall context since the project idea was initially conceptualised that may influence its strategy and implementation.
b. Discuss the roles and responsibilities of the project team, including reporting lines, stakeholder engagement strategies and conflict resolution mechanisms.
c. Review the results framework and monitoring plan.
d. Discuss reporting, monitoring and evaluation roles and responsibilities and finalise the M&E budget; identify national/regional institutes to be involved in project-level M&E; discuss the role of the GEF OFP and other stakeholders in project-level M&E.
e. Update and review responsibilities for monitoring project strategies, including the risk log; SESP report, Social and Environmental Management Framework (where relevant) and other safeguard requirements; project grievance mechanisms; gender strategy; knowledge management strategy, and other relevant management strategies.
f. Review financial reporting procedures and budget monitoring and other mandatory requirements and agree on the arrangements for the annual audit.
g. Plan and schedule Project Board meetings and finalise the first-year annual work plan. Finalise the TOR of the Project Board.
h. Formally launch the Project.

GEF Project Implementation Report (PIR)

363. The annual GEF PIR covering the reporting period July (previous year) to June (current year) will be completed for each year of project implementation. UNDP will undertake quality assurance of the PIR before submission to the GEF. The PIR submitted to the GEF will be shared with the Project Board. UNDP will conduct a quality review of the PIR, and this quality review and feedback will be used to inform the preparation of the subsequent annual PIR.

LDCF Core Indicators

364. The LDCF Core indicators included as Annex 17 will be used to monitor global environmental benefits and will be updated for reporting to the GEF prior to MTR and TE. Note that the project team is responsible for updating the core indicators status. The updated monitoring data must be shared with MTR/TE consultants prior to required evaluation missions, so these can be used for subsequent ground truthing. The methodologies to be used in data collection have been defined by the GEF and are available on the GEF.

Independent Mid-term Review (MTR)

365. An independent mid-term review (MTR) will be completed by the mid-point of the project. The terms of reference, the MTR process and the final MTR report will follow the standard templates and MTR guidance for UNDP-supported GEF-financed projects available on the UNDP Evaluation Resource Center. The MTR must be submitted to the GEF by the mid-point of the

[72] See https://www.thegef.org/projects-operations/policies-guidelines

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project but no later than 48 months after CEO Endorsement. To meet the submission deadline, final MTR reports must be completed and submitted to BPPS NCE team no later than 2 months in advance of the submission deadline to allow sufficient time for internal review/clearance that is required prior to submission. Provisions must be taken to complete and submit the MTR within the submission deadline. Therefore, the MTR process must start no later than 8 months before the expected date of submission of the MTR.

366. The MTR will be 'independent, impartial and rigorous'. The evaluator(s) that UNDP will hire to undertake the assignment will be independent from organisations that were involved in designing, executing or advising on the project to be reviewed. Equally, the evaluators should not be in a position where there may be the possibility of future contracts regarding the project under review.

367. The GEF Operational Focal Point and other stakeholders will be actively involved and consulted during the MTR process. Additional quality assurance support is available from BPPS/NCE.

368. The final MTR report will be publicly available in English and will be posted on the UNDP ERC by the MTR submission date included on cover page of this project document. A management response to MTR recommendations will be posted in the ERC within six weeks of the MTR report's submission to the GEF.

Terminal Evaluation (TE)

369. An independent terminal evaluation (TE) will take place upon completion of all major project outputs and activities. The terms of reference, the evaluation process and the final TE report will follow the standard templates and TE guidance for UNDP-supported GEF-financed projects available on the UNDP Evaluation Resource Center. TE must be submitted to the GEF no later than 6 months after the Completion Date. This is a hard deadline that, if not met, can only be extended through a formal extension request. To meet the submission deadline, final TE reports must be completed and submitted to BPPS NCE team no later than 2 months in advance of the deadline to allow sufficient time for internal review/clearance that is required prior to submission.

370. Provisions must be taken to complete and submit the TE within the submission deadline. Therefore, TE must start no later than 8 months before the expected date of submission of the TE (or 11 months prior to the estimated operational closure date).

371. The evaluation will be 'independent, impartial and rigorous'. The evaluator(s) that UNDP will hire to undertake the assignment will be independent from organisations that were involved in designing, executing or advising on the project to be evaluated. Equally, the evaluators should not be in a position where there may be the possibility of future contracts regarding the project being evaluated.

372. The GEF Operational Focal Point and other stakeholders will be actively involved and consulted during the terminal evaluation process. Additional quality assurance support is available from BPPS NCE.

373. The final TE report will be publicly available in English and posted on the UNDPHY ERC by the TE submission date included on cover page of this project document. A management response to the TE recommendations will be posted to the ERC within six weeks of the TE report submission to the GEF.

374. Per the GEF Terminal Evaluation requirements, for cancelled full-sized projects, Terminal Evaluations are required if the GEF grant expenditure exceeds more than US$ 2 million.

Final Report

375. The project's final GEF PIR along with the terminal evaluation (TE) report and corresponding management response will serve as the final project report package. The final project report package shall be discussed with the Project Board during an end-of-project review meeting to discuss lesson learnt and opportunities for scaling up.

376. In accordance with UNDP's programming policies and procedures, the project will be monitored through the following monitoring and evaluation plans.

377. **Monitoring Plan**

378. The project results, corresponding indicators and mid-term and end-of-project targets in the project results framework will be monitored by the Project Management Unit annually, and will be reported in the GEF PIR every year, and will be evaluated periodically during project implementation. If baseline data for some of the results indicators is not yet available, it will be collected during the first year of project implementation. Project risks, as outlined in the risk register, will be monitored quarterly.

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Monitoring Activity							
	Results Monitoring	**Indicators**	**Targets**	**Description of indicators and targets**	**Frequency**	**Responsible for data collection**	**Means of verification**
Track results progress	To build the climate resilience of local communities in the Tonle Sap Basin through an integrated watershed management approach, while conserving the natural and cultural heritage that sustains local livelihoods and societies	Indicator 1: # direct project beneficiaries disaggregated by gender (individual people)	Midterm: 64,400 people benefitting (51% female) Final: 71,900 people benefitting (51% female)	Sub-indicator 1.2: Beneficiaries were counted as those individuals receiving training in CRA and agroforestry, as well as their households (4.2 people per household). Numbers of farmers was calculated using the average farm size (1.5 ha) against the area targeted for CRA and agroforestry interventions (23,000ha). Sub-indicator 1.1: Beneficiaries were counted as the total population of CFs and CPAs not receiving CRA or agroforestry training. It was assumed that 20% of this population will benefit from improved natural assets (~7,500).	Annually Mid-term Closure	Project Coordinator M&E Expert MoE Extension Officers MAFF Extension Officers	Survey summary reports (including methodologies and findings) Extension officer field reports with uptake verification GPS-tagged photos of practices (e.g., mulching, composting, agroforestry plots) Government or ministry publications (e.g., MAFF reports)
		Indicator 2: Area of land managed for climate resilience (hectares)	Midterm: 31,565 ha Final: 81,900 ha	Sub-indicator 2.1: The total area of agricultural land in the target area is assumed to be approximately 37,000 ha. Of this, 23,000 ha will be managed for climate resilience by mid-term due to CRA and agroforestry training programmes. The remainder will be brought under improved management by closure as the market incentives become operational. Sub-indicator 2.4: The 6,815 ha of forests under CFs or CPAs will be brought under improved climate-resilient management by mid-term as	Annually from year 2 Mid-term Closure	Project Coordinator M&E Expert MoE Extension Officers MAFF Extension Officers	Site inspection reports (with date, location, and findings) Photographic evidence (with metadata such as date and GPS coordinates) Remote sensing analysis reports (with interpretations of data) Final policy briefs Records of consultation processes

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Monitoring Activity							
	Results Monitoring	**Indicators**	**Targets**	**Description of indicators and targets**	**Frequency**	**Responsible for data collection**	**Means of verification**
				members are incentivised to adopt sustainable, climate-resilient NTFP harvesting and production methods. The remaining 35,785 ha of forests in PKNP will be brought under improved management as the updated plans and policy recommendations are implemented by closure.			
		Indicator 3: Number of policies/plans/frameworks/institutions to strengthen climate adaptation	Midterm: 3 sub-national plans Final: 10 policies/plans developed and strengthened that will mainstream climate resilience	The following three sub-national plans will be strengthened for climate resilience by mid-term: i) PKNP Management Program and Action Plan; ii) Tonle Sap Basin Watershed Restoration, Rehabilitation, and Conservation Plan; and iii) SSR Watershed Management Plan. The following seven national policies, strategies and plans will be strengthened or developed for climate resilience by closure: i) National Protected Area Strategic Management; ii) National Forest Program; iii) NBSAP; iv) National Action Programme for Combating Land Degradation; v) National PES Financing Roadmap; vi) Policy for sustainable financing mechanisms; and vii) NCA Strategy and Roadmap.	Annually Mid-term Closure	Project Coordinator M&E Expert	Final policy briefs Meeting reports, including attendance registers and minutes Government resolutions or communiqués indicating endorsement of policy briefs, and revised strategies and plans

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Monitoring Activity							
	Results Monitoring	**Indicators**	**Targets**	**Description of indicators and targets**	**Frequency**	**Responsible for data collection**	**Means of verification**
		Indicator 4: Number of people trained or with awareness raised	Midterm: 7,905 people trained Final: 15,810 people trained	National government: 40 representatives (50% female) Local government: 20 (50% female) Local community organisations: 13,500 farmers in CRA, 2,000 farmers in agroforestry, 230 community members trained in improved livelihoods (At least 50% female) Extension officers: 50 (50% female)	Annually Mid-term Closure	Project Coordinator M&E Expert	Training materials and modules Workshop agendas and facilitation plans Workshop reports, with attendance registers and feedback forms
	Project Outcome 1: Strengthened capacity for coordination, planning and implementation of integrated watershed management at the national and provincial levels	Indicator 5: Capacity of decision-makers to integrate climate change considerations into watershed management	Midterm: Capacity Development Average Score of 3 Final: Capacity Development Average Score of 4.5	Institutional capacity for climate change assessment classification: 1 – No evidence of capacity 2 – Anecdotal/slight evidence of capacity 3 – Partial developed capacity 4 – Widespread, but not comprehensive capacity 5 – Fully developed capacity The baseline assessment indicated an average score of 2.875/5 across the four capacity results areas. The same methodology will be used for the mid-term and final evaluations.	Mid-term Closure	Project Coordinator M&E Expert	Completed questionnaires Final assessment report, including methodology and results

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Monitoring Activity							
	Results Monitoring	**Indicators**	**Targets**	**Description of indicators and targets**	**Frequency**	**Responsible for data collection**	**Means of verification**
	Project Outcome 2: Strengthened resilience of communities in the Siem Reap/Phnom Kulen landscape through scalable nature-based solutions and sustainable finance	Indicator 6: Area of degraded forest ecosystems restored	Midterm: 1,000 ha Final: 2,000 ha	600 ha of degraded forest in the CPAs in PKNP (Zone 6) restored 800 ha of degraded forest in the CFs (Zone 4) restored 600 ha of degraded riparian zones in SSR Watershed (Zones 4, 5 & 6) restored	Annually Mid-term Closure	Project Coordinator M&E Expert MoE Extension Officers MAFF Extension Officers	Site inspection reports (with date, location, and findings) Photographic evidence (with metadata such as date and GPS coordinates) Remote sensing analysis reports (with interpretations of data)
		Indicator 7: Number of tools developed to operationalise a blended finance mechanism that supports sustainable and long-term watershed management at the landscape scale	Midterm: 1 tool Final: 3 tools	By mid-term, the blended finance assessment will be complete By closure, 1 blended finance framework and 1 implementation roadmap will be complete	Mid-term Closure	Project Coordinator M&E Expert	Comprehensive assessment of potential funding sources Minutes of stakeholder consultations Framework for an integrated blended finance mechanism Final validated roadmap
	Project Outcome 3 Increased adoption of climate-resilient natural resource-based livelihoods through training, market development, and	Indicator 8: Availability of project-supported business models for sustainable agricultural and NTFP commodities	Midterm: 0 business models Final: 6 business models for agricultural commodities and NTFPs	By mid-term, the market analyses for agricultural commodities and NTFPs are completed. By closure, business models and practical guidelines have been developed and uploaded	Mid-term Closure	Project Coordinator M&E Expert	Complete market analysis reports for key agricultural and NTFP commodities Minutes of IPLC consultations Reports outlining the business models for

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Monitoring Activity							
	Results Monitoring	**Indicators**	**Targets**	**Description of indicators and targets**	**Frequency**	**Responsible for data collection**	**Means of verification**
	innovative finance mechanisms		2 business models for service businesses	to the relevant digital platforms.			high-potential agricultural and NTFP commodities Practical guidelines for business model implementation are available on the relevant digital platforms
		Indicator 9: Number of financial instruments operationalised, and enterprises supported in sustainable enterprise growth	Midterm: 3 financial instruments developed Final: 3 financial instruments operationalised with 50 enterprises benefitting, 50 community savings groups and 24 Trust Funds	By mid-term, the three financial instruments (matching grants, credit savings groups, and mini trust funds) have been developed. By closure, the three financial instruments are operational, and 124 households are benefitting from them.	Mid-term Closure	Project Coordinator M&E Expert	For matching grants: Enterprise business plans and financial reports For credit savings groups: Group-level savings and loan ledgers, quarterly reports from local facilitators, and loan repayment records For mini trust funds: Bank account statements, trust fund governance documents, annual reports from recipient enterprises, and third-party financial audits
	Project Outcome 4 Innovation in the management of	Indicator 10: Status of Ecosystem Supply-Use Account for the SSR	Midterm: Step 1 of the ecosystem	By midterm, the inter-ministerial coordination body has been established, the NCA strategy and roadmap has	Mid-term Closure	Project Coordinator	Inter-ministerial coordination body

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Monitoring Activity							
	Results Monitoring	**Indicators**	**Targets**	**Description of indicators and targets**	**Frequency**	**Responsible for data collection**	**Means of verification**
	watersheds across Cambodia enabled through high-quality knowledge, research and learning	Watershed for integrating ecosystem service values into Cambodia's natural capital accounting and decision-making processes	services valuation is complete Final: Step 2 of the ecosystem services valuation is complete	been prepared, the capacity-building workshops and events have been held, and the ecosystem service accounts have been developed in physical terms (step 1 of valuation process). By closure, the monetary valuation of ecosystem services complete (step 2 of valuation process), the Ecosystem Supply-Use Account for SSR Watershed is complete, and the knowledge products have been developed and uploaded to the KM platform		M&E Expert	establishment documents National Capital Accounts strategy and roadmap Capacity building workshop reports, attendance registers, and feedback reports Economic valuation of ecosystem services in SSR Watershed Knowledge products
		Indicator 11: Number of digital solutions for market access in agroecology developed through the Challenge Fund	Midterm: 0 digital solutions have been developed Final: 2 digital solutions have been developed	By mid-term, the Challenge Fund has been established, and at least two candidates have been shortlisted for Phase 2 By closure, two candidates have been selected as beneficiaries of the Challenge Fund and their digital solutions are operational	Annually Mid-term Closure	Project Coordinator M&E Expert	Feasibility and needs assessment for digital technologies in agroecology Challenge Fund investment criteria Challenge Fund candidate proposals
	Project Outcome 5 Lessons learnt curated through project M&E and disseminated both nationally and	Indicator 12: Number of MEL tools developed and disseminated	Midterm: 1 MEL Framework and 1 SOP	This indicator tracks the performance of the project KMS, including the collation and dissemination of information through the project. The target is to	Annually Mid-term Closure	Project Coordinator M&E Expert	Knowledge management platform, Research papers SOP Documents

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Monitoring Activity							
	Results Monitoring	**Indicators**	**Targets**	**Description of indicators and targets**	**Frequency**	**Responsible for data collection**	**Means of verification**
	internationally to promote the scaling of interventions to other watersheds across Cambodia and the surrounding region		Final: 1 MEL Framework and 1 SOP	establish a KMS that actively and regularly integrates information generated through project implementation and monitoring, packages it appropriately, and disseminates it to relevant stakeholders.			
		Indicator 13: Number of monitoring and evaluation reports rated Marginally Satisfactory or above	Midterm: 2 annual PIRs and 1 mid-term review rated MUS or above complete Final: 5 annual PIRs, 1 mid-term review and 1 terminal evaluation rated MUS or above complete	This indicator tracks the overall performance of the project as assessment through the monitoring and evaluation.	Annually Mid-term Closure	Project Coordinator M&E Expert	Review of PIRs, MTR and TE

Monitoring Activity	**Frequency/Timeframe**	**Expected Action**	**Partners (If joint)**
Inception Workshop and Report	Inception Workshop within 2 months of the First Disbursement	As per above description	
Track results progress (see above table for details)	Annually and at mid-point and closure	Slower than expected progress will be addressed by project management.	
Monitor and Manage Risk	Quarterly	Risks are identified by project management and actions are taken to manage risk. The risk log is actively maintained to keep track of identified risks and actions taken.	

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Monitoring Activity	Frequency/Timeframe	Expected Action	Partners (if joint)
Monitor GAP, ESMF, IPP and other associated safeguard frameworks	Ongoing	Ensure adequate implementation of safeguard risk mitigation actions, identify new risks, and revise mitigation measures as necessary.	
Supervision Missions	Annually	Any quality concerns or slower than expected progress should be discussed by the project board and management actions agreed to address the issues identified.	
Learning and Learning Missions	As needed	Relevant lessons are captured by the project team and used to inform management decisions.	
Annual Project Quality Assurance	Annually	Areas of strength and weakness will be reviewed by project management and used to inform decisions to improve project performance.	
Review and Make Course Corrections	At least annually	Performance data, risks, lessons and quality will be discussed by the project board and used to make course corrections.	
Annual GEF Project Implementation Report (PIR)	Annually typically between June-September	Mandatory contribution by Project Team, CO and RTA. Strengths and weaknesses will be reviewed by project management and used to inform decisions to improve project performance	
Project Review (Project Board)	Annually	Any quality concerns or slower than expected progress should be discussed by the project board and management actions agreed to address the issues identified.	

Evaluation Plan

Evaluation Title	Partners (if joint)	Related Strategic Plan Output	UNSDCF/CPD Outcome	Planned Completion Date	Key Evaluation Stakeholders
Independent Mid-Term Review (MTR)	*N/A*	2.1; 4.1; 4.2; 6.1; E.3	*OUTCOME 3: By 2028, people in Cambodia, especially those at risk of being left behind, benefit from a healthier, gender-inclusive natural environment.*	31 July 2028	*MoE* *UNDP* *PDoE*
Independent Terminal Evaluation (TE)	*N/A*	2.1; 4.1; 4.2; 6.1; E.3	*OUTCOME 3: By 2028, people in Cambodia, especially those at risk of being left behind, benefit from a healthier, gender-inclusive natural environment.*	30 June 2031	*MoE* *UNDP* *PDoE*

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Monitoring and Evaluation Budget for project execution	
GEF M&E requirements to be undertaken by Project Management Unit (PMU)	**Indicative costs (US$)**
Inception Workshop and Report	5,000
Final Workshop	5,000
M&E required to report on progress made in reaching GEF core indicators and project results included in the project results framework	50,000
Preparation of the annual GEF Project Implementation Report (PIR)	58,416
Monitoring of *Environmental Social Management Framework (ESMF); Indigenous People Planning Framework (IPPF); Process Framework (PF); Livelihood Action Framework (LAF); Grievance Redress Mechanism (GRM); Gender Action Plan*	Combined work of M&E Officer and the Gender and Safeguard Specialist roles, with no additional costs required.
Travel for supervision, monitoring and learning missions	22,125
Independent Mid-term Review (MTR)	30,000
Independent Terminal Evaluation (TE)	30,000
TOTAL indicative COST	200,541

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VII. GOVERNANCE AND MANAGEMENT ARRANGEMENTS

Section 1: General roles and responsibilities in the projects' governance mechanism

Implementing Partner

The Implementing Partner for this project is the Ministry of Environment.

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

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

- Project planning, coordination, management, monitoring, evaluation and reporting. This includes providing all required information and data necessary for timely, comprehensive and evidence-based project reporting, including results and financial data, as necessary. The Implementing Partner will strive to ensure project-level M&E is undertaken by national institutes and is aligned with national systems so that the data used and generated by the project supports national systems.
- Overseeing the management of project risks as included in this project document and new risks that may emerge during project implementation.
- Procurement of goods and services, including human resources.
- Financial management, including overseeing financial expenditures against project budgets.
- Approving and signing the multiyear workplan.
- Approving and signing the combined delivery report at the end of the year; and,
- Signing the financial report or the funding authorisation and certificate of expenditures.

Project stakeholders and target groups

	Stakeholders	Role in the project
Government Entities	Ministry of Environment (MoE) and its Provincial Department for Siem Reap.	As implementing entity, MoE will play a central role in coordinating activities under this project. Given their mandate for environmental conservation, MoE will also be the core stakeholder in all activities involving protected areas.
	National Council for Sustainable Development (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.
	General Directorate of Nature Protection and Conservation (GDANPC)	PAs management of the targeted PAs within the TSB, including the development and implementation of related policy and law enforcement.
	General Directorate for Local Community (GDLC)	Supporting local communities livelihood activities in the targeted protected areas and strengthening management of Community Protected Areas.
	Ministry of Agriculture, Forestry and Fisheries (MAFF)	Technical guidance on agriculture, forestry and fisheries. Support livelihood improvement of project targeted population, mainly farmers, Community Forestry and Community Fisheries. MAFF will support actions involving the agriculture sector as well as community forestry and forest restoration around the Tonle Sap.
	Ministry of Water Resources and Meteorology (MoWRAM)	Given its core role in water issues 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	Technical input and supports for land management, particularly on landscape planning of the TSB.
	Ministry of Economy and Finance (MEF)	MEF will be closely engaged to mobilise larger investors beyond the local private sector, including international financial institutions and allocations of domestic resources.

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	Ministry of Rural Development (MRD)	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	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 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. Given the high concentration of cultural heritage in the SSR Watershed[73], the APSARA Authority will be engaged to ensure complementarity between project interventions and ongoing efforts to conserve cultural heritage. APSARA will also be a key stakeholder in the development of livelihood activities, particularly in terms of linking green destinations with the well-established cultural tourism sector through PPCPs.
	TSB Authority	The TSB Authority will be a key stakeholder under Component 1.
Local Communities	Rural community members	Rural communities who rely on natural resources for their livelihoods will be the primary beneficiaries of on-the-ground support and will play a critical role in achieving the project objectives. Building resilience among communities will be essential to addressing the root causes of degradation and achieving sustainable GEBs and resilience.
	Community leaders	Community leaders will play a central role in garnering support from communities and ensuring local ownership of interventions. To this end, community leaders will be part of the various coordination platforms and forums being established to coordinate IWM and CRA actions in the SSR Watershed.
	Women's, Youth and Indigenous groups	Social inclusion is a key consideration in ensuring the longevity and impact of project interventions. Representatives from various vulnerable groups — including women, youth, and indigenous people — will be actively engaged in the decision-making process. These groups will bring unique perspectives that will ensure that GEBs are cross-cutting and inclusive.
Private Sector	Agriculture Value Chains actors and Agro-entrepreneurs	Actors across the agricultural value chain, including supplies of agricultural inputs and buyers of produce, will play a role in creating sustainable CRA and agroforestry systems. Private partners will also be targeted for the challenge fund to lead in the development of innovative digital solutions for agricultural value chains.
Development Agencies	Development partners	The project will coordinate with several ongoing and planned initiatives from various development agencies (including UNESCO, FAO IFAD, World Bank, USAID, ADB and the EU) throughout implementation to share knowledge and coordinate efforts to ensure that the project is complementary and efficient in delivering GEBs.
	NGOs	Locally-based NGOs will be targeted to provide implementation support under Output 2 and 3.

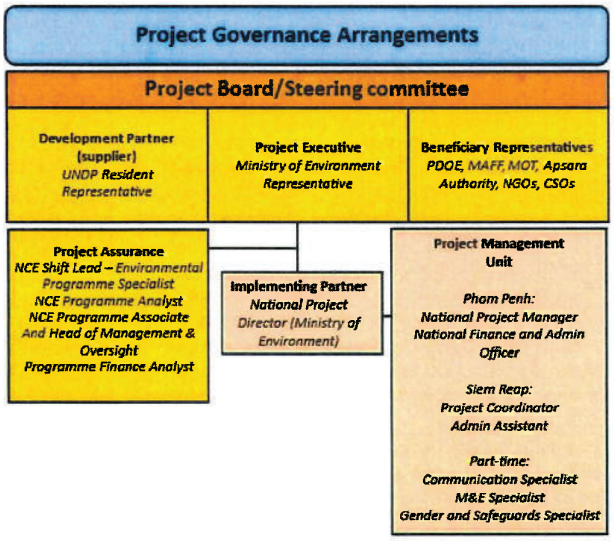
UNDP: UNDP is accountable to the GEF for the implementation of this project. This includes overseeing project execution undertaken by the Implementing Partner to ensure that the project is being carried out in accordance with UNDP and GEF policies and procedures and the standards and provisions outlined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

[73] Note: the project will not work directly in any heritage sites of the Ankor Archaeological Area.

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Section 2: Project governance structure

Full NIM for LDCF Project



Second line of defence

- Regional Bureau oversees RR and function of UNDP compliance in project assurance
- BPPS RTA oversees functions of technical oversight and GEF compliance in project assurance. BBPS NCE PTA oversees RTA function.
- UNDP GEF Executive Coordinator and Regional Bureau Deputy Director can revoke DOA, cancel/suspend project, or provide enhanced oversight.

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

Section 3: Segregation of duties and firewalls vis-à-vis UNDP representation on the project board

380. As noted in the Minimum Fiduciary Standards for GEF Partner Agencies, in cases where a GEF Partner Agency (i.e. UNDP) carries out both implementation oversight and execution of a project, the GEF Partner Agency (i.e. UNDP) must separate its project implementation oversight and execution duties, and describe in the relevant project document a: 1) Satisfactory institutional arrangement for the separation of implementation oversight and executing functions in different departments of the GEF Partner Agency; and 2) Clear lines of responsibility, reporting and accountability within the GEF Partner Agency between the project implementation oversight and execution functions.

381. In this case, UNDP is only performing an implementation oversight role in the project vis-à-vis our role in the project board and in the project assurance function and therefore a full separation of project implementation oversight and execution duties has been assured.

Section 4: Roles and Responsibilities of the Project Organisation Structure

a) Project Board: All UNDP projects must be governed by a multi-stakeholder board or committee established to review performance based on monitoring and evaluation, and implementation issues to ensure quality delivery of results. The Project Board (also called the Project Steering Committee) is the most senior, dedicated oversight body for a project.

The two main (mandatory) roles of the project board are as follows:

1) **High-level oversight of the execution of the project by the Implementing Partner** (as explained in the "Provide Oversight" section of the POPP). This is the primary function of the project board and includes annual (and as-needed) assessments of any major risks to the project, and decisions/agreements on any management actions or remedial measures to address them effectively. The Project Board reviews evidence of project performance based

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on monitoring, evaluation and reporting, including progress reports, evaluations, risk logs and the combined delivery report. The Project Board is responsible for taking corrective action as needed to ensure the project achieves the desired results.

2) **Approval of strategic project execution decisions of the Implementing Partner** with a view to assess and manage risks, monitor and ensure the overall achievement of projected results and impacts and ensure long term sustainability of project execution decisions of the Implementing Partner (as explained in the "Manage Change" section of the POPP).

Requirements to serve on the Project Board:

- ✓ Agree to the Terms of Reference of the Board and the rules on protocols, quorum and minuting.
- ✓ Meet annually; at least once.
- ✓ Disclose any conflict of interest in performing the functions of a Project Board member and take all measures to avoid any real or perceived conflicts of interest. This disclosure must be documented and kept on record by UNDP.
- ✓ Discharge the functions of the Project Board in accordance with UNDP policies and procedures.
- ✓ Ensure highest levels of transparency and ensure Project Board meeting minutes are recorded and shared with project stakeholders.

Responsibilities of the Project Board:

- ✓ Consensus decision making:
  - The project board provides overall guidance and direction to the project, ensuring it remains within any specified constraints, and providing overall oversight of the project implementation.
  - Review project performance based on monitoring, evaluation and reporting, including progress reports, risk logs and the combined delivery report;
  - The project board is responsible for making management decisions by consensus.
  - In order to ensure UNDP's ultimate accountability, Project Board decisions should be made in accordance with standards that shall ensure management for development results, best value money, fairness, integrity, transparency and effective international competition.
  - In case consensus cannot be reached within the Board, the UNDP representative on the board will mediate to find consensus and, if this cannot be found, will take the final decision to ensure project implementation is not unduly delayed.
- ✓ Oversee project execution:
  - Agree on project manager's tolerances as required, within the parameters outlined in the project document, and provide direction and advice for exceptional situations when the project manager's tolerances are exceeded.
  - Appraise annual work plans prepared by the Implementing Partner for the Project; review combined delivery reports prior to certification by the implementing partner.
  - Address any high-level project issues as raised by the project manager and project assurance;
  - Advise on major and minor amendments to the project within the parameters set by UNDP and the donor and refer such proposed major and minor amendments to the UNDP BPPS Nature, Climate and Energy Executive Coordinator (and the GEF, as required by GEF policies);
  - Provide high-level direction and recommendations to the project management unit to ensure that the agreed deliverables are produced satisfactorily and according to plans.
  - Track and monitor co-financed activities and realisation of co-financing amounts of this project.
  - Approve the Inception Report, GEF annual project implementation reports, mid-term review and terminal evaluation reports.
  - Ensure commitment of human resources to support project implementation, arbitrating any issues within the project.
- ✓ Risk Management:
  - Provide guidance on evolving or materialised project risks and agree on possible mitigation and management actions to address specific risks.

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- Review and update the project risk register and associated management plans based on the information prepared by the Implementing Partner. This includes risks related that can be directly managed by this project, as well as contextual risks that may affect project delivery or continued UNDP compliance and reputation but are outside of the control of the project. For example, social and environmental risks associated with co-financed activities or activities taking place in the project's area of influence that have implications for the project.
- Address project-level grievances.

✓ Coordination:

- Ensure coordination between various donor and government-funded projects and programmes.
- Ensure coordination with various government agencies and their participation in project activities.

Composition of the Project Board: The composition of the Project Board must include individuals assigned to the following three roles:

1. **Project Executive:** This is an individual who represents ownership of the project and chairs (or co-chairs) the Project Board. The Executive usually is the senior national counterpart for nationally implemented projects (typically from the same entity as the Implementing Partner), and it must be UNDP for projects that are direct implementation (DIM). In exceptional cases, two individuals from different entities can co-share this role and/or co-chair the Project Board. If the project executive co-chairs the project board with representatives of another category, it typically does so with a development partner representative. The Project Executive is: Representative of the Ministry of Environment.
2. **Beneficiary Representative(s):** Individuals or groups representing the interests of those groups of stakeholders who will ultimately benefit from the project. Their primary function within the board is to ensure the realisation of project results from the perspective of project beneficiaries. Often representatives from civil society, industry associations, or other government entities benefiting from the project can fulfil this role. There can be multiple beneficiary representatives in a Project Board. The Beneficiary representative (s) are Provincial Department of Environment, the Ministry of Forestry, Fishery and Agriculture, Ministry of Tourism, the Apsara Authority, NGOs/CSOs, Community Protected Areas (CPA), Community Forestry (CF).
3. **Development Partner(s):** Individuals or groups representing the interests of the parties concerned that provide funding, strategic guidance and/or technical expertise to the project. The Development Partner(s) is Resident Representative of UNDP in Cambodia.

b) **Project Assurance:** Project assurance is the responsibility of each project board member; however, UNDP has a distinct assurance role for all UNDP projects in carrying out objective and independent project oversight and monitoring functions. UNDP performs quality assurance and supports the Project Board (and Project Management Unit) by carrying out objective and independent project oversight and monitoring functions, including compliance with the risk management and social and environmental standards of UNDP. The Project Board cannot delegate any of its quality assurance responsibilities to the Project Manager. Project assurance is totally independent of project execution.

A designated representative of UNDP playing the project assurance role is expected to attend all board meetings and support board processes as a non-voting representative. It should be noted that while in certain cases UNDP's project assurance role across the project may encompass activities happening at several levels (e.g. global, regional), at least one UNDP representative playing that function must, as part of their duties, specifically attend board meeting and provide board members with the required documentation required to perform their duties. The UNDP representative playing the main project assurance function is the NCE Programme Analyst with support from the Programme Associate and the head of RBM.

c) **Project Management — Execution of the Project:** The Implementing Partner (MoE) will assign a National Project Director, who will serve as the key government focal point for the project, providing oversight to the Project Management Unit (PMU). The National Project Manager (PM) is the senior most representative of the PMU and is responsible for the overall day-to-day management of the project on behalf of the Implementing Partner (under the oversight of the National Project Director), including the mobilisation of all project inputs, supervision over project staff, responsible parties, consultants and sub-contractors. The project manager typically presents key deliverables and documents to the board

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for their review and approval, including progress reports, annual work plans, adjustments to tolerance levels and risk registers. The National PM is supported by a Project Coordinator, who is responsible for day-to-day operations at the local level. A designated representative of the PMU is expected to attend all board meetings and support board processes as a non-voting representative.

The primary PMU representative attending board meetings is National Project Manager.

VIII. FINANCIAL PLANNING AND MANAGEMENT

The total cost of the project is *USD 21,684,703*. This is financed through a *LDCF* grant of *USD* 6,684,703.00 administered by UNDP, and additional support of USD *15,000,000* (include GEF grant administered by other GEF Agencies as relevant). UNDP, as the GEF Implementing Agency, is responsible for the oversight of the GEF resources and the cash co-financing transferred to UNDP bank account only.

Co-financing: The actual realisation of project co-financing amounts will be monitored by the UNDP Country Office and the PMU on an annual basis in the GEF PIF and will be reported to the GEF during the *mid-term review* and terminal evaluation process as follows:

Co-financing source	Co-financing type	Name of Co-financier	Investment Mobilised	Co-financing amount
Recipient Country Government	In-kind	Ministry of Environment	Recurrent expenditures	USD 8,000,000
GEF Agency	In-kind	United Nations Development Programme	Recurrent expenditures	USD 7,000,000
Total				USD 15,000,000

Budget Revision and Tolerance: As per UNDP POPP, the project board may agree with the project manager on a tolerance level for each detailed plan under the overall multi-year workplan. The agreed tolerance should be written in the project document or approved project board meeting minutes. It should normally not exceed 10 percent of the agreed annual budget at the activity level, but within the overall approved multi-year workplan at the activity level. Within the agreed tolerances, the project manager can operate without intervention from the project board. Restrictions apply as follows:

Should the following deviations occur, the Project Manager/IP through UNDP Country Office will seek the approval of the BPPS/NCE-VF team to ensure accurate reporting to the GEF. It is **strongly encouraged** to maintain the expenditures within the approved budget at the budgetary account and at the component level:

a) Budget reallocations must prove that the suggested changes in the budget will not lead to material changes in the results to be achieved by the project. A strong justification is required and will be approved on an exceptional basis. Budget re-allocations among the components (including PMC) of the approved Total Budget and Work Plans (TBWP) that represent a value greater than 10% of the total GEF grant.
b) Introduction of new outputs/activities (i.e. budget items) that were not part of the agreed project document and TBWP that represent a value greater than 5% of the total GEF grant. The new budget items must be eligible as per the GEF and UNDP policies.
c) Project management cost (PMC): budget under PMC component is capped and cannot be increased.

UNDP is not in a position to increase the total budget above the amount approved by the donor; therefore, any over-expenditure would have to be absorbed from non-GEF resources by the Implementing Partner (GEF Executing Entity)

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Project extensions: The UNDP-BPPS-NCE team Executive Coordinator must approve all requests for extension of the Project Completion Date and for other milestone extensions with hard deadlines. All extensions impose additional time and cost burdens at all levels and the GEF project budget cannot be increased beyond its originally approved amount. A single extension may be granted on an exceptional basis and subject to the conditions and maximum durations set out in the UNDP POPP. The project management costs during the extension period must remain within the originally approved amount, and any increase in PMC costs shall be covered by non-GEF resources; the additional UNDP oversight costs during the extension period must be covered by non-GEF resources, in accordance with UNDP's policy as set out in UNDP POPP.

For any extension request, UNDP CO and IP will consult and jointly present a clear plan indicating how and from which specific sources the additional oversight costs that will be incurred by UNDP will be covered during the extended period. The BPPS-NCE Executive Coordinator will consult the Regional Bureaux (RBX) and may reject the extension request if no (external co-financing by the IP or internal UNDP CO resources) can be identified.

All extension requests, along with all supporting documentation, shall be submitted by the IP to the UNDP CO in line with the requirements and within the deadlines set out in the UNDP SOPs and policies in UNDP POPP.

Audit: The project will be audited as per UNDP Financial Regulations and Rules and applicable audit policies. Audit cycle and process must be discussed during the Inception workshop. If the Implementing Partner is an UN Agency, the project will be audited according to that Agencies applicable audit policies.

Transfer or disposal of assets: In consultation with the Implementing Partner and other parties of the project, UNDP is responsible for deciding on the transfer or other disposal of assets. Transfer or disposal of assets is recommended to be reviewed and endorsed by the project board following UNDP rules and regulations. Assets may be transferred to the government for project activities managed by a national institution at any time during the life of a project, however, **must be done before the operational closure date**. In all cases of transfer, a transfer document must be prepared and kept on file[74]. The transfer should be done before Project Management Unit complete their assignments.

Completion Date: The project completion date is the date of Project Document Signature plus project duration. This date can only be extended through a formal extension request. Prior to completion date, all UNDP-financed inputs must be provided and related activities for the Project completed. No activities, except for the final clearance of the Terminal Evaluation Report and the corresponding management response and the end-of-project review Project Board Meeting should take place after the Completion Date.

Project Closure: Project closure will be conducted as per UNDP requirements outlined in the UNDP POPP. All costs incurred to close the project must be included in the project closure budget and reported as final project commitments presented to the Project Board during the final project review. The only costs a project may incur following the final project review are those included in the project closure budget.

- **Operational Closure**: **Operational closure must happen within 9 months from project completion date.** Prior to operational closure, the Terminal Evaluation must have been submitted, and the corresponding TE management response and the end-of-project review Project Board meeting must have been completed. The Implementing Partner through a Project Board decision will notify the UNDP Country Office when operational closure has been completed. Before Operational Closure, the project must have completed the transfer or disposal of any equipment that is still the property of UNDP.
- **Financial Closure: Financial closure must happen within 6 months of operational closure or after the date of cancellation.** The project will be financially closed when the following conditions have been met: a) the project is operationally completed or has been cancelled; b) the Implementing Partner has reported all financial transactions to UNDP; c) UNDP has closed the accounts for the project; d) UNDP and the Implementing Partner have certified a final Combined Delivery Report (which serves as final budget revision).

[74] See https://popp.undp.org/ https://popp-prod.acquia.undp.org/policy-page/close-and-transition.

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Between operational and financial closure, the implementing partner will identify and settle all financial obligations and prepare a final expenditure report. The UNDP Country Office will send the final signed closure documents including confirmation of final cumulative expenditure and unspent balance to BPPS/NCE for confirmation before the project will be financially closed in Quantum by the UNDP Country Office.

Cancellation and Suspension: All projects considering going through cancellation or suspension must follow UNDP and GEF requirements. Guidance can be found in the UNDP POPP (SOPs for management actions of Vertical Fund projects escalated to the Executive Coordinator and Guidance for GEF project revisions).

Refund to GEF: Should a refund of unspent funds to the GEF be necessary, this will be managed directly by the BPPS/NCE team Directorate in New York. No action is required by the UNDP Country Office on the actual refund from UNDP project to the GEF. Unspent project balance is not permitted to be transferred to any other projects.

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IX. TOTAL BUDGET AND WORK PLAN

Total Budget and Work Plan			
Quantum Business Unit	UNDP-KHM		
Quantum Project ID:	01005345	Quantum Project Title:	Building resilient livelihoods through nature-based solutions in the Tonle Sap Basin and Siem Reap/Phnom Kulen landscape
Quantum Award ID:	1542460	Quantum Award Title:	Building resilient livelihoods through nature-based solutions in the Tonle Sap Basin and Siem Reap/Phnom Kulen landscape
UNDP-GEF PIMS No.	9682		
Implementing Partner	Ministry of Environment		

Quantum Outcome (GEF Components)	Quantum Output and Activity (GEF Outcome)	Quantum Responsible Party (UNDP, IP, or Responsible Party)	Quantum Fund ID	Quantum Donor ID	Quantum Budgetary Account Code	Quantum Budget Account Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Amount Year 5 (USD)	Total (USD)	See Budget Note:
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 at the national and provincial levels*	*MoE*	*62160*	*010003*	*71300*	*Local Consultant*	42,000	15,750	19,600	-	-	77,350	1
		MoE	*62160*	*010003*	*71600*	*Travel*	-	1,975	-	-	-	1,975	2
		MoE	*62160*	*010003*	*71800*	*Contractual Services-Imp Partn*	7,000	7,000	7,000	7,000	7,000	35,000	3
		MoE	*62160*	*010003*	*72100*	*Contractual Services-Companies*	143,070	180,950	60,000	-	-	384,020	4
		MoE	*62160*	*010003*	*74200*	*Audio Visual&Print Prod Costs*	-	-	5,000	-	-	5,000	5
		MoE	*62160*	*010003*	*75700*	*Training, workshop, conference*	29,675	56,305	69,180	-	-	155,160	6
		Total MoE					221,745	261,980	160,780	7,000	7,000	658,505	
		UNDP	*62160*	*010003*	*71400*	Contractual Services - Individual	17,283	17,283				34,566	40
		Total UNDP					17,283	17,283				34,566	
	Total Outcome 1						*239,028*	*279,263*	*160,780*	*7,000*	*7,000*	*693,071*	
Component 2: Investment in integrated watershed management, restoration and conservation, at scale	*Outcome 2: Strengthened resilience of communities in the Siem Reap/Phnom Kulen landscape through scalable nature-based solutions and sustainable finance*	*MoE*	*62160*	*010003*	*71200*	*International Consultants*	-	-	33,000	-	-	33,000	7
		MoE	*62160*	*010003*	*71300*	*Local Consultant*	68,084	-	-	-	-	68,084	8
		MoE	*62160*	*010003*	*71600*	*Travel*	-	18,000	-	8,900	4,125	31,025	9
		MoE	*62160*	*010003*	*71800*	*Contractual Services-Imp Partn*	49,800	49,800	49,800	49,800	49,800	249,000	10
		MoE	*62160*	*010003*	*72100*	*Contractual Services-Companies*	-	213,092	13,065	52,000	314,500	592,657	11
		MoE	*62160*	*010003*	*72300*	*Materials & goods*	-	627,700	627,700	627,700	-	1,883,100	12
		MoE	*62160*	*010003*	*72800*	*Information Technology Equipmt*	-	-	15,040	-	-	15,040	13
		MoE	*62160*	*010003*	*75700*	*Training, workshop, conference*	-	-	181,670	7,070	5,530	194,270	14

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		Total MoE					117,884	908,592	920,275	745,470	373,955	3,066,176	
		UNDP	62160	010003	71400	Contractual Service - Individual	17,284	17,284				34,568	40a
		Total UNDP					17,284	17,284				34,568	
	Total Outcome 2						135,168	925,876	920,275	745,470	373,955	3,100,744	
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	MoE	62160	010003	71600	Travel	800	100,040	-	-	-	100,840	15
		MoE	62160	010003	71800	Contractual Services-Imp Partn	10,000	10,000	10,000	10,000	10,000	50,000	16
		MoE	62160	010003	72100	Contractual Services-Companies	230,000	222,464	120,395	392,000		964,859	17
		MoE	62160	010003	72300	Materials & goods	5,000	-	-	22,349	-	27,349	18
		MoE	62160	010003	75700	Training, workshop, conference	14,300	112,042	268,385	35,651		430,378	19
		Total MoE					260,100	444,546	398,780	460,000	10,000	1,573,426	
		UNDP	62160	010003	71400	Contractual Services - Individual	17,284	17,284				34,568	40b
		Total UNDP					17,284	17,284				34,568	
	Total Outcome 3						277,384	461,830	398,780	460,000	10,000	1,607,994	
Component 4: Knowledge, research and Innovation	Outcome 4: Innovation in the management of watersheds across Cambodia enabled through high-quality knowledge, research and learning	MoE	62160	010003	71200	International Consultants	33,000	30,000	-	36,000	-	99,000	20
		MoE	62160	010003	71300	Local Consultant	33,250	-	-	17,500	30,000	80,750	21
		MoE	62160	010003	71800	Contractual Services-Imp Partn	13,200	13,200	13,200	13,200	13,200	66,000	22
		MoE	62160	010003	72100	Contractual Services-Companies	-	121,979	233,775	96,300	-	452,054	23
		MoE	62160	010003	75700	Training, workshop, conference	25,418	5,825	3,425	-	-	34,668	24
		Total MoE					104,868	171,004	250,400	163,000	43,200	732,472	
		UNDP	62160	010003	71400	Contractual Services – Individual	17,284	17,284				34,568	40c
		Total UNDP					17,284	17,284				34,568	
	Total Outcome 4						122,152	188,288	250,400	163,000	43,200	767,040	
Component 5: Monitoring, Evaluation and Learning	Outcome 5: Lessons learnt 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	MoE	62160	010003	71600	Travel	4,425	4,425	4,425	4,425	4,425	22,125	25
		MoE	62160	010003	71800	Contractual Services-Imp Partn	14,483	14,483	14,483	14,483	14,484	72,416	26
		MoE	62160	010003	72100	Contractual Services-Companies	-	25,000	-	-	-	25,000	27
		MoE	62160	010003	75700	Training, workshop, conference	4,200	4,200	4,200	4,200	4,200	21,000	28
		Total MoE					23,108	48,108	23,108	23,108	23,109	140,541	

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		UNDP	62160	010003	71200	International Consultants	-	18,000	-	-	18,000	36,000	29
		UNDP	62160	010003	71300	Local Consultant	-	10,500	-	-	10,500	21,000	30
		Total UNDP					-	28,500	-	-	28,500	57,000	
	Total Outcome 5						23,108	76,608	23,108	23,108	51,609	197,541	
PMC	PMC	MoE	62160	010003	71600	Travel	8,000	8,000	8,000	8,000	8,000	40,000	31
		MoE	62160	010003	71800	Contractual Services-Imp Partn	30,600	30,600	30,600	30,600	30,600	153,000	32
		MoE	62160	010003	72200	Equipment and Furniture	2,550	-	-	-	-	2,550	33
		MoE	62160	010003	72400	Communic & Audio Visual Equip	2,500	2,500	2,500	2,500	2,500	12,500	34
		MoE	62160	010003	72500	Supplies	4,400	4,400	4,400	4,400	4,400	22,000	35
		MoE	62160	010003	72800	Information Technology Equipmt	15,092	-	-	-	-	15,092	36
		MoE	62160	010003	73400	Rental & Maint of Other Equip	7,200	7,200	7,200	7,200	7,200	36,000	37
		MoE	62160	010003	75700	Training, workshop, conference	12,171	-	-	-	-	12,171	38
		Total MoE					82,513	52,700	52,700	52,700	52,700	293,313	
		UNDP	62160	010003	74100	Professional Services	5,000	5,000	5,000	5,000	5,000	25,000	39
		Total UNDP					5,000	5,000	5,000	5,000	5,000	25,000	
	Total PMC						87,513	57,700	57,700	57,700	57,700	318,313	
							884,353	1,969,565	1,811,043	1,456,278	543,464	6,664,703	

Budget Notes

Budget Note No.	Budget Note (Description)
1	One National Consultant for output 1.2 (expect to be the same consultant implement over 5 years): A. Review national and provincial policies and management plans related to watershed governance (USD 21,000) B. Develop policy briefs to guide the coherent gender-balanced integration of climate resilience into sectoral plans (USD 21,000) C. Present policy briefs at validation workshop (USD 15,750) D. Train government representatives on implementation of the recommended policy briefs (USD 19,600)
2	Travel for local consultants for output 1.4: Total cost (USD 1,975)
3	Project coordinator (19%) over 5 years under Outcome 1. Total cost (USD 35,000)

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4	One local firm for output 1.1 (same firm and expect to be over 5 years of implementation): A. Develop a web-based decision-support tool (DST) for watershed management and monitoring (USD 39,000) B. Develop standard operating procedures for the oprationlaisation of the DST, including data storage and maintenance (USD 30,000) C. Facilitate the designation of specific personnel at MoE to operationalise and maintain the platform and tool (USD 30,000) D. Develop training materials and facilitate initial training for MoE personnel (included in the above budgets)-(USD10,000) E. Provide TA to MoE for establishing a long-term capacity development program-(USD 17,000) F. Establish a long-term capacity development programme apply knowledge in decision-making processes (USD 40,620)
	One local firm for output 1.3 (same firm and expect to be over 5 years of implementation): A. Review the existing Integrated Tonle Sap Watershed Restoration, Rehabilitation, and Conservation Plan (US$22,200) B. Conduct the land use, land cover, and climate risk assessments for the TSB (USD 15,750) C. Conduct integrated ecosystem mapping to identify remnant forest areas and riparian zones along critical waterways (USD 18,000) D. Assess land degradation to identify areas for restoration and rehabilitation ($24,500). E. Advisory services for updating the TSB Watershed Restoration, Rehabilitation, and Conservation Plan ($12,000). F. Advisory services for integrating the Plan into environmental policies, land-use regulations, and investment strategies ($12,250) G. Develop SOPs for regional and national decision-making bodies to enable implementation of the updated Plan ($18,000).
	One local firm for output 1.4(same firm and expect to be over 5 years of implementation): A. Oversee stakeholder dialogues with indigenous groups, community elders, religious leaders, and local farmers and fishers, and map climate hazards and vulnerabilities: Total cost(US$24,500) B. Provide advisory services for drafting the co-management strategies and actions for NbS in SSR: Total cost (US$22,750) C. Develop and adopt a detailed spatial map and zoning for SSR and PKNP governance to facilitate demarcation, land registration, and zoning (USD 47,450)
5	Design and Printing of Policy Brief for output 1.2 (Total cost: $5,000)
6	Two days workshop in Siem Reap for 30 pax for activity 1.1.1: Total cost including travelers from other districts: USD 6,168
	Official Launching Event at MoE $500 for activities 1.1.2
	Two Workshop in Phnom Penh for 50 pax for 5-days for activity 1.1.4: Total cost including travelers from other provinces: USD 24,212
	Training materials for activity 1.1.4: Total cost $2,500
	2 days workshop in Siem Reap for 50 pax for activity 1.2.1:Total cost including traveler from Phnom Penh: USD 4,470
	1-days validation workshop in Phnom Penh for activity 1.2.3: Total cost: USD 2,500
	2-days training in Phnom Penh for 50 pax for activity 1.2.4: Total cost including travelers from Siem Reap: USD 12,109
	2-days training in Siem Reap for 50 pax for activity 1.2.4: Total cost including travelers from Phnom Penh: USD 12,496
	2 days training in five districts for 30 pax for activity 1.2.4: Total cost for five trainings in five districts: USD 44,075
	Scoping One-day workshop for 7 provinces around Tonle Sap for activity 1.3.2: Total cost for seven provinces: USD 4,340
	1-days validation workshop in Phnom Penh for activity 1.2.5: Total cost: USD 2,200
	2-days co-design workshop in Siem Reap for activity 1.3.7: Total cost including travel from other provinces: USD 5,039
	1 days training in 10 districts for 30 pax for activity 1.4.1: Total cost including travel for 10 districts: USD 9,968
	5 Events: Organization of Event for international and National Environmental Day for five times (1 time per year): USD 16,165
	2-days co-design workshop in Siem Reap for activity 1.4.3: Total cost including travel from Phnom Penh: USD 8,418

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7	One International consultant for activity 2.2.5: A. Conduct a comprehensive assessment and develop an economic case for sustainable, climate-resilient agroforestry (USD 18,000) B. Assessment report compiled by International Consultant, outlining policy recommendations and investment strategies for scaling agroforestry (USD 6000) C. High-level advocacy event where International Consultant will present evidence and promote agroforestry (USD 9,000)
8	Local consultant to: A. Conduct and develop the assessment report on SESA for construction and restoration related activities (2.1.1,2.1.3). Total Cost: USD 24,000 B. Conduct and develop the assessment report on ESIA for construction and restoration related activities (2.1.1,2.1.3). Total Cost: USD 24,000 C. Provision of input to Safeguard Officer on the update project risk register, SESP and ESMF following the result of SESA and ESIA (2.1.1,2.1.3): USD 20,084
9	Travel costs for extension officers and other parties to site, including delivery of materials, transport of labour to site, and refreshments for all parties for activity 2.2.1. Total Cost: USD 18,000
	Travel cost for conducting a comprehensive assessment of potential funding sources, including public budgets, private sector investments, biodiversity finance, and climate finance for activity 2.3.1. Total Cost: USD 4,450
	Travel cost for Design a blended finance framework for climate-responsive watershed management in the TSB for activity 2.3.2. Total cost: USD 4,450
	Travel cost for developing an implementation roadmap for operationalizing a blended finance mechanism in the SSR Watershed for activity 2.3.3. Total Cost: USD 4,125
10	Project Coordinator (35%) over 5 years under Outcome 2. Total cost (USD63,000)
	Project Communication Officer (100%) over 5 years. Total Cost (USD 66,000)
	Monitoring and Evaluation Officer (42%) over 5 years. Total Cost (USD 50,000)
	Project Gender and Safeguard Officer (58%) over 5 years. Total Cost (USD 70,000)
11	Local consultancy firm for activity 2.1.3: A. Repair 3 degraded ponds (minor repairs)- Amount per contract USD 15,000-(community protected areas) B. Repair 4 degraded ponds (medium repairs)- Amount per contract USD 25,592-(community protected areas) C. Repair 4 degraded ponds (substantial repairs)-Amount per contract USD 40,000-(community protected areas) D. Install new ponds- Amount per contract USD 87,500 (community protected areas)
	Local Consultancy Firm for Activity 2.2.1: A. Establish two agroforestry demonstration sites in each of the three target communes. The cost includes planting materials, tools and equipment. Total cost: USD 27,000 B. Fee for the establishment as well as one year of site maintenance of agroforestry demonstration sites . Total cost: USD 18,000
	Local Consultancy Firm for Activity 2.2.2: A. Produce and broadcast a radio campaign. Total cost: USD 8,065 B. Generate content and manage a social media awareness campaign. Total cost: USD 5,000
	International Consultancy Firm for Activity 2.3: A. Conduct a comprehensive assessment of the finance programmes for activity 2.3.1: Total cost: USD 26,000 B. Develop the blended finance framework. Total cost USD 26,000 C. Develop the implementation roadmap for the blended finance framework. Total cost USD 19,500
	Consulting firm to lead drafting of policy and legal frameworks. Total cost: USD 10,000
	Advising on how financing tools align with enterprise growth phases and market readiness. Total USD 20,000

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	Innovative Finance to identify policy bottlenecks; facilitate dialogue with all stakeholders. Total cost: USD 30,000
	One Consulting Firm for activities 2.3.1: Lead design of finance mechanisms that can crowd-in private capital and enable scaling. Total cost: USD 20,000
	Call for Proposal to provide support to the operationlisation of sustainable finance facility (Matching Grants) for activity 2.3.3 Total cost: USD 47,500
	Call for Proposal to provide support to the operationlisation of sustainable finance facility (Starting capital for Savings Groups) for activity 2.3.3: USD 47,500
	Call for Proposal to provide support to the operationlisation of sustainable finance facility (Mini-Trust Funds) for activity 2.3.3: USD 120,000
12	Procurement of trees (sapling+seedling+materials) for forest restoration in PKNP (Zone 6), including CPAs. Total area restored: 774 Ha for activity 2.1.1. Total cost: USD 503,100
	Procurement of trees (sapling+seedling+materials) for forest restoration in non-protected areas (CFs) of Zones 4 & 5. Total area restored: 800 Ha for activity 2.1.1. Total cost: USD 520,000
	Procurement of trees (sapling+seedling+materials) forest restoration in riparian zones (Zones 4, 5, & 6). Total area restored: 600 Ha for activity 2.1.1. Total cost: USD 390,000
	Procurement of Agroforestry inputs (including seedling and associated supporting materials, Assuming each farmer has 1 ha and implements agroforestry on whole area) activity 2.2.3. Total cost: USD 470,000
13	Develop IEC materials for learning event. Total cost: USD 15,040
14	Training material prepared for 2,000 farmers for activity 2.2.3. Total cost: USD 20,000
	Two-day theoretical training workshops held across the three target communes activity 2.2.3. Total cost: USD 9,600
	Training cost for lead-farmers to host practical training demonstrations activity 2.2.3. Total cost: USD 4,800
	Three training days for 2000 farmers on suitable agroforestry practices (refreshment) on for activity 2.2.3. Total cost: USD 60,000
	144 training days on suitable agroforestry practices: Transport and refreshment for Extension officers (lumpsum per day: $80) under activity 2.2.3: Total cost: USD 11,520
	Workshop, field visits to farmers; and engagement with women's groups activity 2.2.3 . Total cost: USD 750.
	Learning event for activity 2.2.4. Total cost: USD 75,000
	1-days validation workshop in Phnom Penh for 50 participants for Conduct a comprehensive assessment of potential funding sources, including public budgets, private sector investments, biodiversity finance, and climate finance for activity 2.3.1. Total cost USD 3,530
	1-days validation workshop in Phnom Penh for 50 participants for Design a blended finance framework for climate-responsive watershed management in the TSB for activity 2.3.4 .Total cost: USD 3,540
	1-days validation workshop in Phnom Penh for 50 participants for Develop an implementation roadmap for operationalizing a blended finance mechanism in the SSR Watershed for activity 2.3.6. Total cost USD 3,530
	Workshops for activity 2.3.2. Total cost: USD 2,000
15	Travel for PMU and consultants for selection and formal agreements with 5 principal lead farmers-USD 800
	Travel for PMU and consultants for Selection and formal agreements with 330 lead farmers- USD 5,000
	One combined visit (Government extension officer and one NGO technical expert) per lead farmer per year over four years for 660 different locations)- USD 79,200

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	Travel for consultants to engage farmer groups and cooperatives to assess their specific seed requirements. Total cost: USD 15,840
16	42% of project gender and safeguard officer over 5 years (USD 50,000)
17	One Consulting Firm for Activity 3.2 A. Monitoring of contract implementation for activity 3.2.4 Total cost: USD 13,395
	One consulting firm to support MoWRAM for Weather Forecasting: A. Provide advisory services on application of seasonal focus activity 3.1.2. Total cost: USD 20,000 B. Provide specialised training on the application of seasonal forecasts and agricultural advisories. for activity 3.1.3. Total cost: USD 60,000
	One consulting firm (service NGOs) for Agroecology: A. Provide technical agroecology support to government extension officers during training workshops for activity 3.1.3. Total cost : USD 12,000 B. Procured services (NGOs) to develop online CRA guidelines and upload to digital platforms such as the Chamka App. for activity 3.1.3 Total cost : USD 24,000 C. Support baseline assessments and provide advisory services for establishing demonstration plots. Total cost: USD 20,000 D. Provide specialised training on agroecology. Total cost: USD 30,000
	One consulting firm (CARDI) for Climate Resilient Seed: A. Provide specialised training on climate-resilient seeds. for activity 3.1.3. Total cost: USD 23,664. B. Support PDAFF in: identifying and mapping active seed distributors within Siem Reap Province and neighboring areas; for activity 3.1.4. Total cost: 15,000 C. Identify and assess existing seed producer groups or cooperatives within the target communities. Total cost: USD 50,000 D. Digital learning and Knowledge Management:. Total cost USD 30,000 E. Provide advisory services on climate-resilient seeds to use for demonstration plots. Total cost: USD 20,000 F. Provide specialised training on climate-resilient seeds. Total cost USD 30,000
	One consulting firm farmer cooperatives: A. Formation of farmer cooperatives for activity 3.1.3. Total cost: USD 15,000 B. Contractual agreements drafted and signed for activity 3.1.4. Lump sum for five contracts: USD 50,000 C. Train vulnerable smallholder farmers on climate-resilient agricultural practices and technologies to safeguard productivity under a changing climate- Total cost: USD 52,800
	One consulting firm for NTFP: A. Conduct market assessments for agricultural commodities under Activity 4.2.1. Total cost: USD 27,000 B. Conduct market assessments for NTFPs; Total cost: USD 17,500 C. Identify and engage potential NTFP buyers. Total cost: USD 15,000 D. Lead participatory training needs assessment with marketplace vendors, NTFP harvesters, and processors to identify skills gaps and capacity-building priorities. Total cost USD 42,000
	One consulting firm for business model: A. Develop a comprehensive training programme to support farmers and producer organisations in implementing the business models. Total cost: USD 17,500 B. Facilitate comprehensive training programmes to support farmers and producer organisations in implementing the business models. Total cost: USD 15,000 C. Facilitation of informal discussions between farmers and commodity off-takers during field visits; and formal contract negotiations at the B2B forum. Total cost: USD 15,000

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	One consulting firm for Restoration: A. Select the community groups responsible for managing the newly-established tree nurseries. Total cost: USD 30,000. B. Establish six new community-managed tree nurseries. Total cost for 6 nursery: USD 120,000 C. Establish restoration service provision businesses. Total cost: USD 30,000
	One consulting firm for Mini-Market Assessment: A. Assess existing mini-marketplace vendors and NTFP producers/harvesters across multiple theme. Total cost: USD 54,000 B. Based on the assessment findings, upgrade mini-marketplaces and vendor spaces in key areas. Total cost: USD 36,000
	One consulting firm for Livelihood improvement (LOA with Department of local community) A. Engagement with local communities for implementation of output 3. USD 40,000 B. Training to local community on village- and eco-tourism initiatives for activity 3.3.4. Total cost: USD 40,000
18	Agricultural inputs materials for the establishment of 5 demonstration sites (one in each target district) - materials and inputs-Total Cost: USD 5,000
	Starter materials provided to trained farmers or farmer groups. Total cost: USD 10,000
	Seed certification materials for farmers or farmer groups. Total cost: USD 5,000
	Materials for formalization of seed producer groups into recognised entities. Total cost: USD 7,349
19	Training workshop for 50 government extension officers (theoretical sessions and practical demonstrations at the 5 demo sites (4 days) for activity 3.1.2. Total cost: USD 14,300
	12 capacity building workshops for lead farmers (2 days at indoor venue) for activity 3.1.3. Total cost: USD 21,012
	12 capacity building workshops for lead farmers (2 days at demonstration sites) for activity 3.1.3. Total cost: USD 21,012.
	Two CRA workshops for lead farmers during the implementation period, one after the first growing season (4-6 months) and one after a full season or when the benefits of longer-term practices become visible for activity 3.1.3. Total cost: USD 67,320
	Centralised negotiation meeting with seed providers, farmer representatives, and relevant authorities for activity 3.1.4. Total cost USD 2,698
	Two validation workshops to present the result of the above assessment for activity 3.2.1. Total cost USD 7,060
	61 three-day training workshops for ~4880 target farmers on post-harvest management and value addition, market integration, business and financial management, and market linkages and digital platforms (facilitated by public and private extension providers)-for activity 3.2.2. Total cost: USD 237,046
	The training for activity 3.2.2 (DSA and travel for PMU to randomly participate in the training). Total cost: USD 2,829
	Business-to-business (B2B) forum held between farmers and off-takers to negotiate contract terms for activity 3.2.3. Total cost USD 7,150
	Business matchmaking events held to facilitate direct interactions between producers and hotel procurement managers, as well as tourism business owners for activity 3.2.4. Total cost: USD 7,150
	B2B forum held to negotiate contract terms for activity 3.2.4. Total cost: USD 7,150
	Capacity-building workshop for the 6 selected CBOs at an existing operational nursery for activity 3.3.1. Total cost: USD 5,676
	Technical training and capacity building for selected farmers or groups on certified seed production techniques for activity 3.3.2. Total cost USD 22,350

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	Training workshops for local community groups on the establishment of village- and eco-tourism initiatives for activity 3.3.4. Total cost: USD 7,625
20	Natural Capital Accounting Specialist/Environmental Economist (International Consultant) to: A. Design standardised methodology for ecosystem service valuation based on SEEA; B. Lead development of the NCA Roadmap and ensure alignment with best practices; C. Design and deliver targeted training for account compilers (for example, on data collection, modelling, and SEEA framework). Total cost: USD 33,000
	Natural Capital Accounting Specialist/Environmental Economist (International Consultant) to: A. Oversee the translation of physical ecosystem accounts into monetary value; B. Apply economic valuation techniques (replacement cost, market price, willingness-to-pay etc.); C. Synthesis findings into user-friendly reports, contribute to awareness-raising, and knowledge materials under Activity 4.1.4. Total cost: USD 30,000
	Knowledge Management Specialist (International Consultant) to: A. Design the overall structure and content strategy of the KMS; B. Define and document SOPs for data collection, processing, and sharing; C. Ensure alignment with national (e.g., CEMIS) and sectoral knowledge platforms (e.g., PEARL project); D. Identify and curate knowledge products such as lessons learnt, case studies, and research outputs; E. Facilitate integration of knowledge flows from project components and stakeholders; F. Collaborate with the Information Systems Architect; G. Engage with stakeholders to ensure alignment of objectives and systems; and H. Collaborate with the Communications Specialist under Activity 4.3.3 to ensure communication is based on the knowledge generated and stored in the KMS. Total cost: USD 36,000
21	Policy/Institutional advisor (National Consultant) to: A. support the establishment of an inter-ministerial coordination body; B. Ensure integration with national development, budgeting, and planning systems; and C. Design awareness programmes for policymakers on NCA relevance to public finance and planning. Total cost: USD 17,500
	National consultant to develop the NCA strategy and roadmap for knowledge for climate change impacts on ecosystem service provision in the SSR Watershed. Total cost: USD 15,750
	Specialist Communications Expert (National Consultant) to: A. Lead development of the gender-responsive communication strategy and action plan; B. Translate technical knowledge into audience-appropriate formats (infographics, videos, success stories); C. Design inclusive campaigns with messaging tailored to Indigenous Peoples, women, youth, and the private sector; D. Design tools to monitor communication effectiveness; v) Collaborate with the KM Specialist to understand what content should be translated and disseminated; and E. Collaborate with the KM Specialist to ensure insights from the implementation of the strategy and action plan under Activity 4.3.4 are integrated into the KMS. Total cost: USD 17,500
	National consultant to Identify national and local government programmes for scaling and integrate them into the KMS. Total cost: USD 11,800
	National consultant to develop a scaling strategy based on lessons learnt from the project. Total cost: USD 11,200
	National consultant to provide technical assistance to government ministries for scaling IWM approaches. Total cost: USD 7,000
22	Project coordinator (26%) under Outcome 4. Total cost (USD 46,000)
	16% of project Monitoring and Evaluation officer over 5 years (USD 20,000)

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23	One Local Consulting Firm to support in quantifying the ecosystem services in physical terms, including: A. Quantify hydrological services including water supply for irrigation, domestic use, and cultural heritage (Angkor Wat) in SSR Watershed; B. Analyse and quantify soil organic carbon, nutrient cycling, erosion, and related indicators; C. Identify and quantify provisioning services like medicinal and food plants; D. Assess forest-based tourism value (e.g., revenue, visitor data, job creation); and v) Support spatial analysis and mapping of ecosystem service supply and use. Total cost: USD 36,000
	Academic/research institutions to conduct targeted research on resilience-enhancing restoration and agriculture practices. Total cost: USD 53,479
	One local consulting firm to: A. Coordinate the creation, review, and consolidation of knowledge products into the project's KMS; B. Translate findings into accessible policy briefs, case studies, and practice guides; C. Create infographics and interactive visuals that explain ecosystem service values and trade-offs; D. Develop engaging videos and media content to raise awareness among local communities and stakeholders; E. Ensure all knowledge products are compatible with the KM platform; and vi) Coordinate with the KM platform manager to upload all knowledge products. Total cost: USD 32,500
	One Local Consultancy Firm to: A. Lead the feasibility assessment of digital technologies for agroecology; B. Assess the digital literacy and readiness of farmers and cooperatives; C. Identify suitable technologies; iv) Recommend digital tools that support certification, traceability, and carbon monitoring; D. Evaluate the technical feasibility of proposed digital tools and their integration with the Khmer Agriculture Suite (KAS); E. Support the design of technical criteria for the Challenge Fund; and F. Ensure data security and interoperability across platforms and systems. Total cost: USD 21,000
	One Local Consultancy Firm: A. Ensure that the proposed technologies align with agroecological principles and climate resilience goals; B. Provide input on how digital tools can support soil conservation, sustainable farming practices, and ecosystem resilience; and C. Support integration of traceability tools with sustainability certifications. Total cost: USD 21,000
	One consulting firm for Information System : A. Design system architecture for the KMS and ensure integration with CEMIS and other sectoral systems; B. Develop interoperability protocols and application programming interfaces (APIs) for seamless data exchange; C. Ensure integration of real-time DST updates from Output 1.1; D. Develop system requirements for secure, scalable data management infrastructure; and F. Collaborate with the Knowledge Management Specialist (Architect). Total cost: USD 36,000
	One consulting firm for KMS: A. Build and maintain the online platform (public interface of the KMS); B. Design user-friendly dashboards, search filters, and discussion forums; C. Implement features that allow real-time updates and multi-user access; D. Ensure local language support and culturally relevant user experience; E. Optimize mobile compatibility and accessibility; and F. Collaborate with the KM Specialist and Information Systems Architect under Activity 4.3.1 (Local firm: Specialist Web Developer). Total cost: USD 30,000

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	One Consulting firm for (Media Outlets — TV, radio, print, online) to: A. Disseminate infomercials, interviews, and news segments; B. Translate complex climate concepts into accessible formats; and C. Reach population with limited internet access. Total cost: USD 30,300
	Call for proposal to support the development of digital agroecology solutions through the service company to support the activities 4.2.2. Total cost for 3 funds: USD 180,000
	Call for proposal (administrative fee) to support the development of digital agroecology solutions the activities 4.2.2. Total cost: USD 11,775
24	One 4-day workshop: Technical capacity-building programme for NCA compilers 40 participants for activity: 4.1.1. Total cost: USD 10,915
	NCA awareness-raising for policymakers: One 2-day workshop for 20 participants. for activity: 4.1.1. Total cost: USD 5,893
	Knowledge exchanges and participation in regional forums for activity: 4.1.1. Total cost: USD 8,610
	Workshop for activity 4.1.2: to conduct an economic valuation of ecosystem services in the SSR Watershed. Total cost: USD 5,825
	Workshop to activity 4.1.3. Total cost: USD 3,425
25	Travel for project steering committee and PMU in Siem Reap for project monitoring. Total cost: USD 20,000
	Travel Safeguard Assessment and Monitoring. Total cost USD 2,125
26	42% of Monitoring and Evaluation Officer over 5 years (USD 50,000)
	100% Internship for youth engagement at MoE over 5 years (USD 22,416)
27	Local service company for the maintenance of M&E System for Project/Program Monitoring. Total cost: USD 25,000
28	Annual Project Steering Committee and PMU in Siem Reap for project monitoring. Total cost: USD 10,000
	Workshop to develop M&E System for Project/Program Monitoring. Total cost: USD 11,000
29	International Consultant to conduct independent mid-term review and terminal evaluation and implement mid-term and terminal evaluation (60days*600$/day). Total cost: USD 36,000
30	National consultant to conduct independent mid-term review and terminal evaluation and implement mid-term and terminal evaluation (60 days*350$/day). Total cost: USD 21,000
31	Travel for PMU and MoE from Phnom Penh to Siem Reap. Total cost: USD 25,000
	Travel for PMU from Siem Reap City to the sites. Total cost: USD 15,000
32	Project coordinator (20%) over 5 years under PMC. Total cost: USD 36,000
	100% of Project Admin Assistant over 5 years. Total cost: USD 45,000
	100% of National Finance and Admin Officer. Total cost: USD 72,000
33	Office tables/chairs for PMU: Total cost: USD 2,550 for year 1 to 5
34	Telephone card allowance and internet connection for PMU. Total cost: USD 12,500 for year 1 to 5
35	Office stationary, Ink, photocopy, other logistic support. Total cost: USD 4,400 for year 1 to 5

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36	- Computers for PMU - 1 Printer and 1 Scanner - Accounting System and other ICT supplies - Total cost: USD 15,092
37	- Vehicle rental for PMU and MoE: Total cost: USD 28,500 - Maintenance for ICT equipment: USD 7,500
38	Project Inception workshop. Total cost: USD 12,171
39	Professional audit fee for MoE over 5 years. Total cost: USD 25,000 (USD 5000 per year)
40	Chief Technical Advisor /Project Technical Advisor (IPSA10)- 56% of the Annual proforma cost and 25% of the cost under outcome 1 for 2 years . Total cost = USD 34,566.00
40a	Chief Technical Advisor /Project Technical Advisor (IPSA10)- 56% of the Annual proforma cost and 25% of the cost under outcome 2 for 2 years . Total cost = USD 34,568.00
40b	Chief Technical Advisor /Project Technical Advisor (IPSA10)- 56% of the Annual proforma cost and 25% of the cost under outcome 3 for 2 years. Total cost = USD 34,568.00
40c	Chief Technical Advisor /Project Technical Advisor (IPSA10)- 56% of the Annual proforma cost and 25% of the cost under outcome 4 for 2 years . Total cost = USD 34,568.00

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X. LEGAL CONTEXT

382. This project document shall be the instrument referred to as such in Article 1 of the Standard Basic Assistance Agreement between the Government of Cambodia and UNDP, signed on (date). All references in the SBAA to "Executing Agency" shall be deemed to refer to "Implementing Partner."

383. This project will be implemented by Ministry of Environment ("Implementing Partner") in accordance with its financial regulations, rules, practices and procedures only to the extent that they do not contravene the principles of the Financial Regulations and Rules of UNDP. Where the financial governance of an Implementing Partner does not provide the required guidance to ensure best value for money, fairness, integrity, transparency, and effective international competition, the financial governance of UNDP shall apply.

XI. RISK MANAGEMENT

384. Consistent with the Article III of the SBAA, the responsibility for the safety and security of the Implementing Partner and its personnel and property, and of UNDP's property in the Implementing Partner's custody, rests with the Implementing Partner. To this end, the Implementing Partner shall:

    a) put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried;
    b) assume all risks and liabilities related to the Implementing Partner's security, and the full implementation of the security plan.

385. UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of the Implementing Partner's obligations under this Project Document.

386. The Implementing Partner agrees to undertake all reasonable efforts to ensure that no UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the United Nations Security Council Consolidated Sanctions List, and that no UNDP funds received pursuant to the Project Document are used for money laundering activities. The United Nations Security Council Consolidated Sanctions List can be accessed via https://www.un.org/securitycouncil/content/un-sc-consolidated-list.

387. The Implementing Partner acknowledges and agrees that UNDP will not tolerate sexual harassment and sexual exploitation and abuse of anyone by the Implementing Partner, and each of its responsible parties, their respective sub-recipients and other entities involved in Project implementation, either as contractors or subcontractors and their personnel, and any individuals performing services for them under the Project Document.

    (a) In the implementation of the activities under this Project Document, the Implementing Partner, and each of its sub-parties referred to above, shall comply with the standards of conduct set forth in the Secretary General's Bulletin ST/SGB/2003/13 of 9 October 2003, concerning "Special measures for protection from sexual exploitation and sexual abuse" ("SEA").

    (b) Moreover, and without limitation to the application of other regulations, rules, policies and procedures bearing upon the performance of the activities under this Project Document, in the implementation of activities, the Implementing Partner, and each of its sub-parties referred to above, shall not engage in any form of sexual harassment ("SH"). SH is defined as any unwelcome conduct of a sexual nature that might reasonably be expected or be perceived to cause offense or humiliation, when such conduct interferes with work, is made a condition of employment or creates an intimidating, hostile or offensive work environment. SH may occur in the workplace or in connection with work. While typically involving a pattern of conduct, SH may take the form of a single incident. In assessing the reasonableness of expectations or perceptions, the perspective of the person who is the target of the conduct shall be considered.

    1. a) In the performance of the activities under this Project Document, the Implementing Partner shall (with respect to its own activities), and shall require from its sub-parties referred to in paragraph 4 (with respect to their activities) that they, have minimum standards and procedures in place, or a plan to develop and/or improve such standards and procedures

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in order to be able to take effective preventive and investigative action. These should include: policies on sexual harassment and sexual exploitation and abuse; policies on whistleblowing/protection against retaliation; and complaints, disciplinary and investigative mechanisms. In line with this, the Implementing Partner will and will require that such sub-parties will take all appropriate measures to:

i. Prevent its employees, agents or any other persons engaged to perform any services under this Project Document, from engaging in SH or SEA;
ii. Offer employees and associated personnel training on prevention and response to SH and SEA, where the Implementing Partner and its sub-parties referred to in paragraph 4 have not put in place its own training regarding the prevention of SH and SEA, the Implementing Partner and its sub-parties may use the training material available at UNDP;
iii. Report and monitor allegations of SH and SEA of which the Implementing Partner and its sub-parties referred to in paragraph 4 have been informed or have otherwise become aware, and status thereof;
iv. Refer victims/survivors of SH and SEA to safe and confidential victim assistance; and
v. Promptly and confidentially, record and investigate any allegations credible enough to warrant an investigation of SH or SEA. The Implementing Partner shall advise UNDP of any such allegations received and investigations being conducted by itself or any of its sub-parties referred to in paragraph 4 with respect to their activities under the Project Document, and shall keep UNDP informed during the investigation by it or any of such sub-parties, to the extent that such notification (i) does not jeopardise the conduct of the investigation, including but not limited to the safety or security of persons, and/or (ii) is not in contravention of any laws applicable to it. Following the investigation, the Implementing Partner shall advise UNDP of any actions taken by it or any of the other entities further to the investigation.

b) The Implementing Partner shall establish that it has complied with the foregoing, to the satisfaction of UNDP, when requested by UNDP or any party acting on its behalf to provide such confirmation. Failure of the Implementing Partner, and each of its sub-parties referred to in paragraph 4, to comply of the foregoing, as determined by UNDP, shall be considered grounds for suspension or termination of the Project.

388. Social and environmental sustainability will be enhanced through application of the UNDP Social and Environmental Standards (http://www.undp.org/ses) and related Accountability Mechanism (http://www.undp.org/secu-srm).

389. The Implementing Partner shall: (a) conduct project and programme-related activities in a manner consistent with the UNDP Social and Environmental Standards, (b) implement any management or mitigation plan prepared for the project or programme to comply with such standards, and (c) engage in a constructive and timely manner to address any concerns and complaints raised through the Accountability Mechanism. UNDP will seek to ensure that communities and other project stakeholders are informed of and have access to the Accountability Mechanism.

390. All signatories to the Project Document shall cooperate in good faith with any exercise to evaluate any programme or project-related commitments or compliance with the UNDP Social and Environmental Standards. This includes providing access to project sites, relevant personnel, information, and documentation.

391. The Implementing Partner will take appropriate steps to prevent misuse of funds, fraud or corruption, by its officials, consultants, responsible parties, subcontractors and sub-recipients in implementing the project or using UNDP funds.

392. In the implementation of the activities under this Project Document, UNDP places reasonable reliance upon the Implementing Partner for it to apply its laws, regulations and processes, and applicable international laws regarding anti money laundering and countering the financing of terrorism, to ensure consistency with the principles of then in force the UNDP Anti-Money Laundering and Countering the Financing of Terrorism Policy.

393. The Implementing Partner will ensure that its financial management, anti-corruption, anti-fraud and anti-money laundering and countering the financing of terrorism policies are in place and enforced for all funding received from or through UNDP.

394. The requirements of the following documents, then in force at the time of signature of the Project Document, apply to the Implementing Partner: (a) UNDP Policy on Fraud and other Corrupt Practices and (b) UNDP Office of Audit and Investigations Investigation Guidelines. The Implementing Partner agrees to the requirements of the above documents, which are an integral part of this Project Document and are available online at www.undp.org.

395. In the event that an investigation is required, UNDP has the obligation to conduct investigations relating to any aspect of UNDP projects and programmes in accordance with UNDP's regulations, rules, policies and procedures. The Implementing

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Partner shall provide its full cooperation, including making available personnel, relevant documentation, and granting access to the Implementing Partner's (and its consultants', responsible parties', subcontractors' and sub-recipients') premises, for such purposes at reasonable times and on reasonable conditions as may be required for the purpose of an investigation. Should there be a limitation in meeting this obligation, UNDP shall consult with the Implementing Partner to find a solution.

396. The signatories to this Project Document will promptly inform one another in case of any incidence of inappropriate use of funds, or credible allegation of fraud or corruption with due confidentiality.

397. Where the Implementing Partner becomes aware that a UNDP project or activity, in whole or in part, is the focus of investigation for alleged fraud/corruption, the Implementing Partner will inform the UNDP Resident Representative/Head of Office, who will promptly inform UNDP's Office of Audit and Investigations (OAI). The Implementing Partner shall provide regular updates to the head of UNDP in the country and OAI of the status of, and actions relating to, such investigation.

398. UNDP shall be entitled to a refund from the Implementing Partner of any funds provided that have been used inappropriately, including through fraud, corruption or other financial irregularity, or otherwise paid other than in accordance with the terms and conditions of the Project Document. Such amount may be deducted by UNDP from any payment due to the Implementing Partner under this or any other agreement. Recovery of such amount by UNDP shall not diminish or curtail the Implementing Partner's obligations under this Project Document.

399. Where such funds have not been refunded to UNDP, the Implementing Partner agrees that donors to UNDP (including the Government) whose funding is the source, in whole or in part, of the funds for the activities under this Project Document, may seek recourse to the Implementing Partner for the recovery of any funds determined by UNDP to have been used inappropriately, including through fraud, corruption or other financial irregularity, or otherwise paid other than in accordance with the terms and conditions of the Project Document.

    Note: The term "Project Document" as used in this clause shall be deemed to include any relevant subsidiary agreement further to the Project Document, including those with responsible parties, subcontractors and sub-recipients.

400. Each contract issued by the Implementing Partner in connection with this Project Document shall include a provision representing that no fees, gratuities, rebates, gifts, commissions or other payments, other than those shown in the proposal, have been given, received, or promised in connection with the selection process or in contract execution, and that the recipient of funds from the Implementing Partner shall cooperate with any and all investigations and post-payment audits.

401. Should UNDP refer to the relevant national authorities for appropriate legal action any alleged wrongdoing relating to the project, the Government will ensure that the relevant national authorities shall actively investigate the same and take appropriate legal action against all individuals found to have participated in the wrongdoing, recover and return any recovered funds to UNDP.

402. The Implementing Partner shall ensure that all of its obligations set forth under this section entitled "Risk Management" are passed on to each responsible party, subcontractor and sub-recipient and that all the clauses under this section entitled "Risk Management Standard Clauses" are included, mutatis mutandis, in all sub-contracts or sub-agreements entered into further to this Project Document.

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XII. MANDATORY ANNEXES

Annex 1: GEF Budget Template

To be provided by MPSU after TBWP clearance.

Annex 2: GEF execution support letter

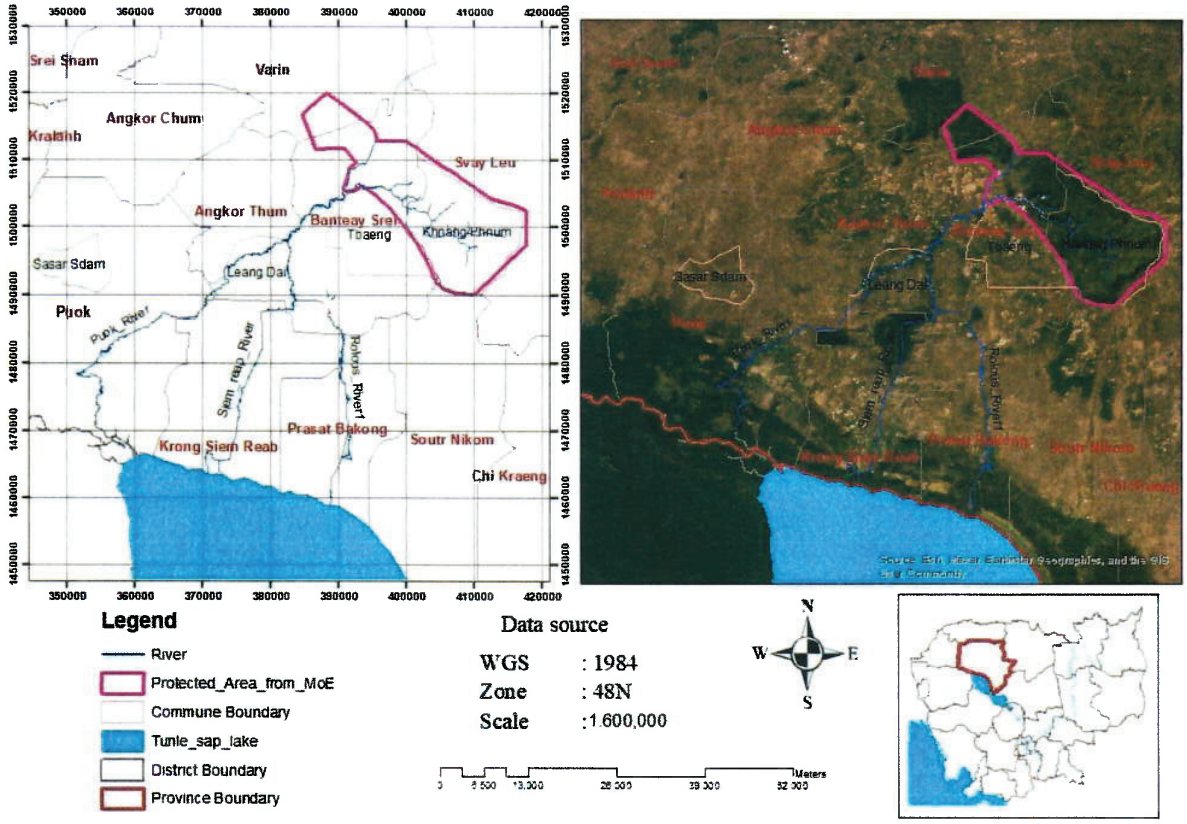
403. Not Applicable

Annex 3: Project map and Geospatial Coordinates of project sites

Any maps included in this project document must conform to maps accepted by the UN Geospatial Information Section (see https://www.un.org/geospatial/mapsgeo)

Geo Name ID *Required field if the location is not an exact site*	**Location Name** *Required field*	**Latitude** *Required field*	**Longitude** *Required field*	**Location Description** *Optional text field*	**Activity Description** *Optional text field*
1821300	TSB Centroid	2.9239	103.9152	Tonle Sap Basin area across 6 provinces.	Targeted for improved watershed management
1822214	SSR Centroid	13.3618	103.8606	Steung Siem Reap watershed, from the Phnom Kulen National Park down to the Tonle Sap Lake	Targeted for on-the-ground interventions

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Annex 4: Multi Year Work Plan

Submitted as separate Annex

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Annex 5: UNDP Social and Environmental Screening Procedure (SESP)

Submitted as separate Annex

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Annex 6: UNDP Risk Register

Project Title: Building resilient livelihoods through nature-based solutions in the Tonle Sap Basin and Siem Reap/Phnom Kulen landscape	**Project Number:**	**Date:** 20-Apr-25

#	Event	Cause	Impact(s)	Risk Category and Sub-category	Impact, Likelihood & Risk Level	Risk Valid From/To	Risk Owner	Risk Treatment and Treatment Owner
1	Particularly vulnerable and marginalised groups or with low level of literacy, may not have the capacity and opportunities to claim their rights in terms of design and implementation of project activities	The risk is related especially to the opportunities for vulnerable groups to access to project activities under Output 2.1 (Nature-based solutions implemented in the Siem Reap/Phnom Kulen landscape to reduce flood impacts and improve water provisioning services), Output 2.2 (Sustainable landscape rehabilitation implemented through community-based agroforestry initiatives focusing on diverse, high-value tree species that benefit agricultural livelihoods and enhance carbon stocks), Output 3.1 (Smallholder farmers trained in climate-resilient agricultural practices that improve productivity under water-stressed and flood-prone conditions), Output 3.2 (Enhanced commodity value chains and improved market linkages for key agricultural products and NTFPs) and Output 3.3 (Community-based enterprises established to facilitate long-term,	Discrimination and exclusion from project benefits of the most vulnerable individuals and groups.	1. SOCIAL AND ENVIRONMENTAL (1.1. Human rights) - UNDP Risk Appetite: CAUTIOUS	**Likelihood:** 3 - Moderately likely **Impact:** 3 - Intermediate **Risk level:** MODERATE (equates to a risk appetite of EXPLORATORY)	From: 01-Jun-26 To: 31-Dec-31	PMU/MoE	**Risk Treatment 1.1:** The project's Comprehensive Stakeholder Engagement Plan – developed during PPG - will guide inclusive and appropriately-customised engagement with all categories of stakeholders throughout project implementation. To ensure that the needs and interests of all decision-makers and all vulnerable and marginalised groups are adequately accommodated, site-level stakeholder analyses will be conducted and site-based stakeholder engagement plans developed with customised strategies to address each stakeholder grouping. The development of the site-based Stakeholder Engagement plans must be informed by a rapid vulnerability assessment that identifies vulnerable groups based on clear criteria. **Risk Treatment Owner:** PMU/MoE **Risk Treatment 1.2:** The risk will be mitigated though the implementation of the Gender Action Plan – developed during PPG – that will ensure that women and men equally will be make aware of their rights in terms of accessing to project benefits.

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#	Event	Cause	Impact(s)	Risk Category and Sub-category	Impact, Likelihood & Risk Level	Risk Valid From/To	Risk Owner	Risk Treatment and Treatment Owner
		sustainable support to the implementation of NbS), where the participation could be limited by low level of literacy and awareness for vulnerable individuals or groups of their rights in the project areas.						Risk Treatment Owner:
2	Weak or non-inclusive engagement leads to exclusion of some potentially affected stakeholders from decision making that affects them from benefitting equitably from project interventions, in particular marginalised and vulnerable groups.	This is a cross-cutting risk and could arise from any project activity if stakeholder engagement- especially done by institutions and entities in charge of project governance - is ineffective and channels for addressing complaints are not available or unknown to stakeholders.	Inequitable participation and distribution of project benefits, leading to weak ownership by stakeholders Grievances from stakeholders, especially from marginalised groups	1. SOCIAL AND ENVIRONMENTAL (1.12. Stakeholder engagement) - UNDP Risk Appetite: CAUTIOUS	**Likelihood:** 4 - Highly likely **Impact:** 2 - Minor **Risk level:** MODERATE (equates to a risk appetite of EXPLORATORY)	From: 01-Jun-26 To: 31-Dec-31	PMU/MoE	The project's **Comprehensive Stakeholder Engagement Plan** – developed during PPG - will guide inclusive and appropriately-customised engagement with all categories of stakeholders throughout project implementation. To ensure that the needs and interests of all decision-makers and all vulnerable and marginalised groups are adequately accommodated, **site-level stakeholder analyses** will be conducted and **site-based stakeholder engagement plans** developed with customised strategies to address each stakeholder grouping. The development of the site-based Stakeholder Engagement plans must be informed by a **rapid vulnerability assessment** that identifies vulnerable groups based on clear criteria. Risk Treatment Owner: **PMU/MoE**
								The project's **Grievance Redress Mechanism** will be operational within three months from project

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#	Event	Cause	Impact(s)	Risk Category and Sub-category	Impact, Likelihood & Risk Level	Risk Valid From/To	Risk Owner	Risk Treatment and Treatment Owner
								inception phase and it must be **well-communicated** to all stakeholders using appropriate means, with evidence of the communication strategy provided in the project's first PIR. All stakeholders will have access the **UNDP Accountability Mechanism,** and stakeholders must be informed of this and how they can access it. Risk Treatment Owner: **PMU/MoE**
								The **M&E Framework** should include specific indicators and targets for tracking stakeholder engagement and operation of the GRM, in line with priorities set in the Stakeholder Engagement Plans. Progress with implementation will be reported in the annual PIR. An **annual Stakeholder Engagement Report** should be prepared by the PMU and made publicly available. Risk Treatment Owner: **PMU/MoE**
								To promote transparency and accountability, all SES documents, along with other key project documents will be **publicly disclosed** in line with UNDP's policy on public disclosure of project information. Risk Treatment Owner: **PMU/MoE**
3	Government agencies may have limited capacity to develop or	The risk is related to the policy-level interventions (planned as project activities) that do not	Adverse or inequitable/discriminatory impacts, especially on	1. SOCIAL AND ENVIRONMENTAL (1.1. Human rights) - UNDP Risk	**Likelihood:** 3 - Moderately likely **Impact:**	From: 01-Jun-26 To: 31-Dec-31	PMU	Output 1.2 (Policy briefs and training on the integration of future climate risk into national and sub-national watershed management

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#	Event	Cause	Impact(s)	Risk Category and Sub-category	Impact, Likelihood & Risk Level	Risk Valid From/To	Risk Owner	Risk Treatment and Treatment Owner
	implement policies and plans in a socially-inclusive and rights-based manner, leading to adverse impacts on the enjoyment of human rights by project-affected people	include all relevant stakeholders or do not take their rights, needs and interests into full account – such as activities under Output 1.2 (Policy briefs and training on the integration of future climate risk into national and sub-national watershed management plans) and Output 1.3 (Updated Tonle Sap Basin Watershed Restoration, Rehabilitation, and Conservation Plan integrating future climate risk and resilience needs)	vulnerable or marginalised communities Restrictions in availability or quality of or access to resources, in particular for marginalised or vulnerable groups Exacerbation of conflicts – between communities or between communities and government officials.	Appetite: CAUTIOUS	3 - Intermediate **Risk level:** MODERATE (equates to a risk appetite of EXPLORATORY)			plans) and Output 1.3 (Updated Tonle Sap Basin Watershed Restoration, Rehabilitation, and Conservation Plan integrating future climate risk and resilience needs) will be informed by application of **scoped SESA (Strategic Environmental and Social Assessment) principles and methods**. These will ensure that: all relevant social and environmental priorities to be addressed by the policy reforms/planning interventions are identified and assessed; gaps in the institutional, policy and legal frameworks to address these issues are identified (with appropriate remediation/capacity-building measures built into the resulting policies/plans); potential adverse social and environmental impacts associated with the policies/plans are identified (and a framework for mitigating them included in an **Action Matrix**); all decision makers and stakeholders have a common understanding and give their broad support for implementation. The project's **Comprehensive Stakeholder Engagement Plan** describes a **Grievance Redress Mechanism** for addressing complaints arising from project-led activities, and stakeholders will have

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#	Event	Cause	Impact(s)	Risk Category and Sub-category	Impact, Likelihood & Risk Level	Risk Valid From/To	Risk Owner	Risk Treatment and Treatment Owner
								access to UNDP's Accountability Mechanism. Risk Treatment Owner: **PMU/MoE**
4	Private sector entities involved in project activities may have low capacities of assessment and managing impacts on the environment, in particular on biodiversity	The risk is related to the implementation of activities under Output 2.3 (Sustainable financing mechanism established and operational within the SSR Watershed to promote public-private-community partnership investments and support long-term financing of community-led NbS initiatives), where the involvement of private sector can be key to achieve project objective.	The activities implemented by the private sector entities may lead to negative impacts on ecosystems in the project area.	1. SOCIAL AND ENVIRONMENTAL (1.4. Biodiversity conservation and sustainable natural resource management) - UNDP Risk Appetite: CAUTIOUS	**Likelihood:** 3 - Moderately likely **Impact:** 3 - Intermediate **Risk level:** MODERATE (equates to a risk appetite of EXPLORATORY)	From: 01-Jun-26 To: 31-Dec-31	PMU/MoE	At project inception phase, the private sector entities involved in the project will be assessed through a **due diligence process**, to ensure that they have in place and are operational the procedures to identify risks and impacts on the social context and on the environment. The PMU will ensure that the procedures will be applied to the implementation of project activities. Risk Treatment Owner: **PMU/MoE**
5	Project activities may lead to restrictions on access to resources used by communities to support their livelihoods.	Project activities that may trigger access restrictions include: Output 2.1 (Nature-based solutions implemented in the Siem Reap/Phnom Kulen landscape to reduce flood impacts and improve water provisioning services), Output 2.2 (Sustainable landscape rehabilitation implemented through community-based agroforestry initiatives focusing on diverse, high-value tree species that benefit agricultural livelihoods and enhance	Loss of livelihood for communities in the project area Changes/erosion of traditional resources-use practices Reduced income for communities in the project area Increased poverty for vulnerable groups and	1. SOCIAL AND ENVIRONMENTAL (1.8. Displacement and resettlement) - UNDP Risk Appetite: CAUTIOUS	**Likelihood:** 3 - Moderately likely **Impact:** 3 - Intermediate **Risk level:** MODERATE (equates to a risk appetite of EXPLORATORY)	From: 01-Jun-26 To: 31-Dec-31	PMU/MoE	A **scoped Environmental and Social Impact Assessment (ESIA)** will be developed during the first year of project implementation, focusing on the impacts of the identified Outputs. An **Environmental and Social Management Plan (ESMP)** – including a **Livelihoods Action Plan (LAP)** - will be developed, based on the ESIA's findings. The measures identified in the LAP will be integrated in the implementation of Outcome 2 and Outcome 3.

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#	Event	Cause	Impact(s)	Risk Category and Sub-category	Impact, Likelihood & Risk Level	Risk Valid From/To	Risk Owner	Risk Treatment and Treatment Owner
		carbon stocks) and Output 3.3 (Community-based enterprises established to facilitate long-term, sustainable support to the implementation of NbS)	individuals in the project area Social conflicts between groups and/or individuals with different opportunities to access to resources					The LAP will incorporate a rapid **vulnerability analysis** to ensure that targeted measures are developed to address economic displacement impacts on the most vulnerable or marginalised communities. The LAP will be developed taking into consideration the **Livelihood Action Framework** and the **Process Framework** developed during PPG. **The PMU must monitor potential impacts of any displacement on the project affected communities.** Risk Treatment Owner: PMU A comprehensive Stakeholder Engagement Plan – which includes a **Grievance Redress Mechanism** has been developed for engaging the communities in decisions that may lead to restricted access. Risk Treatment Owner: PMU
6	Livelihood/business activities may generate waste and cause release of pollutants into the environment	Activities under Output 3.3 (Community-based enterprises established to facilitate long-term, sustainable support to the implementation of NbS)	Dangers/negative impacts on air, soil or water in the project areas Potential harm to human health Undermining of intended positive biodiversity and ecological outcomes	1. SOCIAL AND ENVIRONMENTAL (1.11. Pollution prevention and resource efficiency) - UNDP Risk Appetite: CAUTIOUS	**Likelihood:** 3 - Moderately likely **Impact:** 3 - Intermediate **Risk level:** MODERATE (equates to a risk appetite of EXPLORATORY)	From: 01-Jun-26 To: 31-Dec-31	PMU/MoE	The project will manage the risk through **activities design,** based on **targeted waste/pollution and resource use efficiency assessments**, in line with any national regulatory requirements and international best practices. Business plans for the NbS activities and construction activities should be ground- truthed for risks at specific sites using the project SESP, and

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#	Event	Cause	Impact(s)	Risk Category and Sub-category	Impact, Likelihood & Risk Level	Risk Valid From/To	Risk Owner	Risk Treatment and Treatment Owner
								appropriate risk avoidance or management measures should be built into the design of each intervention. Risk Treatment Owner: PMU/MoE
								A **Waste Management** and **Pesticide/Chemicals Management Plan** will be developed at project inception phase in line with applicable national regulatory requirements and international standards.
								The **Waste Management** and **Pesticide/Chemicals Management Plan** will take into consideration the findings of the **scoped ESIA** and will be an annex of the **ESMP**, that will be developed during the first year of project implementation. Risk Treatment Owner: PMU/MoE
7	Labour practices may not conform to international norms and standards, especially with regards to child labour and discriminatory conditions	The risk is related to the labour practices and working conditions for the implementation of activities under Output 3.3 (Community-based enterprises established to facilitate long-term, sustainable support to the implementation of NbS)	Increase of inequality between men and women and between other groups and individuals in the labour market in the project area Children may drop out of school in favour of working (also to meet family needs) in the project area	1. SOCIAL AND ENVIRONMENTAL (1.10. Labour and working conditions) - UNDP Risk Appetite: CAUTIOUS	**Likelihood:** 3 - Moderately likely **Impact:** 3 - Intermediate **Risk level:** MODERATE (equates to a risk appetite of EXPLORATORY)	From: 01-Jun-26 To: 31-Dec-31	PMU/MoE	During project implementation, work opportunities will be made available equitably to all sectors of society, ensuring that vulnerable groups such as unskilled workers, women, youth, those living with disability, in remote areas or in deep poverty are given fair opportunities. Child labour – that could be a risk inherent to the context – will be avoided, ensuring that international standards are applied. Risk Treatment Owner: PMU/MoE

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#	Event	Cause	Impact(s)	Risk Category and Sub-category	Impact, Likelihood & Risk Level	Risk Valid From/To	Risk Owner	Risk Treatment and Treatment Owner
8	Project outputs will be vulnerable to climate-induced impacts such as severe droughts, floods and/or increased temperatures.	This cross-cutting risk will apply especially to Output 2.1 (Nature-based solutions implemented in the Siem Reap/Phnom Kulen landscape to reduce flood impacts and improve water provisioning services), Output 2.2 (Sustainable landscape rehabilitation implemented through community-based agroforestry initiatives focusing on diverse, high-value tree species that benefit agricultural livelihoods and enhance carbon stocks) and Output 3.3 (Community-based enterprises established to facilitate long-term, sustainable support to the implementation of NbS)	Increased vulnerability of project outputs and communities dependent on them, leading to potential failure to deliver any benefits for biodiversity or people.	1. SOCIAL AND ENVIRONMENTAL (1.5. Climate change and disaster risks) - UNDP Risk Appetite: CAUTIOUS	**Likelihood:** 3 - Moderately likely **Impact:** 3 - Intermediate **Risk level:** MODERATE (equates risk appetite of EXPLORATORY)	From: 01-Jun-26 To: 31-Dec-31	PMU/MoE	**During early implementation, a Climate Vulnerability/Risk assessment** will be carried out as part of **scoped ESIAs** to: • Identify likely climate change trends and scenarios; • assess risk exposure of proposed activities/outputs, especially under Outcome 2 and Outcome 3 • identify and evaluate community exposure and vulnerability and develop **climate risk preparedness plans** (as part of the project's **ESMP**) where risk is substantial or high • identify measures that the project can take to avoid, adapt to or reduce/mitigate project impacts though, for example, siting of activities (in least risk-prone areas), use of low-carbon technologies in operations (e.g. solar-powered energy for tourism operations); and developing risk-preparedness plans (for outputs and communities depend on them). • identify climate risk information to be included in training programmes) and knowledge sharing platforms and climate-related parameters for inclusion in the M&E process. The following **principles will be integrated into the design of project activities:**

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#	Event	Cause	Impact(s)	Risk Category and Sub-category	Impact, Likelihood & Risk Level	Risk Valid From/To	Risk Owner	Risk Treatment and Treatment Owner
								• Adaptive Management: Implement adaptive management strategies to respond to changing climate conditions during the project implementation, including extreme weather events. • Resilience Building: Focus on building the resilience of communities and ecosystems to climate change impacts, including capacity building on adaptation techniques Community Involvement: Engage local communities in planning and implementing of adaptation and other activities to ensure local ecological knowledge is incorporated into the activities. Risk Treatment Owner: **PMU/MoE**
9	The project may reproduce existing inequality between women and men and discrimination and disparities faced by women, especially regarding participation in decision-making, design, implementation and access to project opportunities and benefits	The risk is related to all project activities, if women's needs and interests are not adequately factored into design and implementation of interventions and/or if women are not given equitable access to benefits from project-supported activities. However, the risk is linked especially to Output 2.1 (Nature-based solutions implemented in the Siem Reap/Phnom Kulen landscape to reduce flood impacts and improve water provisioning services), Output 2.2 (Sustainable	Worsening of the social and economic condition of women and reproduction of existing discriminations against women; Limitations on women's ability to use, develop and manage resources taking into account the different roles of women and men Livelihoods displacement (for the	1. SOCIAL AND ENVIRONMENTAL (1.2. Gender equality and women's empowerment) - UNDP Risk Appetite: CAUTIOUS	**Likelihood:** 3 - Moderately likely **Impact:** 3 - Intermediate **Risk level:** MODERATE (equates risk appetite of EXPLORATORY)	From: 01-Jun-26 To: 31-Dec-31	PMU/MoE	**The Gender Analysis and Action Plan** developed during PPG identifies the needs, opportunities and strategies relevant to overcoming the barriers that currently constrain women's participation in livelihood activities. The GAP will be ground-truthed during early implementation through site-based analyses. The **Gender Action Plan will be integrated** – if needed – with the findings of the scoped ESIA, that will be developed during the first year of implementation. The **design of activities** under Outcome 3 in particular makes

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#	Event	Cause	Impact(s)	Risk Category and Sub-category	Impact, Likelihood & Risk Level	Risk Valid From/To	Risk Owner	Risk Treatment and Treatment Owner
	and pre-existing discriminatory practices based on gender in the project area	landscape rehabilitation implemented through community-based agroforestry initiatives focusing on diverse, high-value tree species that benefit agricultural livelihoods and enhance carbon stocks) and Output 3.3 (Community-based enterprises established to facilitate long-term, sustainable support to the implementation of NbS), where the involvement of men and women in processes related to livelihood may not be done considering the local specificities of roles, responsibilities and capacity to access to opportunities of men and women	most vulnerable individual – women and men) and associated social impacts related to food security and other aspects of family well-being and social cohesion					specific provision for addressing gender inclusion (for example through gender-specific capacity building) and the project's **indicator framework includes gender disaggregated targets.** The project will develop a participatory and gender-inclusive **M&E system**, which will include measures for assessing improvements in women's ability to access, use and protect natural resources The project's **Grievance Redress Mechanism** will be gender-sensitive. Risk Treatment Owner: **PMU/MoE**
10	Adverse impacts on sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture.	This risk will apply especially to Output 2.1 (Nature-based solutions implemented in the Siem Reap/Phnom Kulen landscape to reduce flood impacts and improve water provisioning services), Output 2.2 (Sustainable landscape rehabilitation implemented through community-based agroforestry initiatives focusing on diverse, high-	Changes in use of natural resources may lead to erosion of cultural practices and traditions and breakdown in cultural values/social cohesion NbS activities may cause physical damage at sites of cultural heritage value (e.g. sacred sites)	1. SOCIAL AND ENVIRONMENTAL (1.7. Cultural heritage) - UNDP Risk Appetite: CAUTIOUS	**Likelihood:** 3 - Moderately likely **Impact:** 3 - Intermediate **Risk level:** MODERATE (equates risk appetite of EXPLORATORY)	From: 01-Jun-26 To: 31-Dec-31	PMU/MoE	**Targeted Cultural Heritage Impact Assessment** (including intangible and intangible cultural heritage) have been developed during PPG. Findings will be captured in a **Cultural Heritage Management Plan** (as part of the project's **ESMP**). The Cultural Heritage Management Plan should include provision for chance find procedures, in line with applicable national requirements.

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#	Event	Cause	Impact(s)	Risk Category and Sub-category	Impact, Likelihood & Risk Level	Risk Valid From/To	Risk Owner	Risk Treatment and Treatment Owner
		value tree species that benefit agricultural livelihoods and enhance carbon stocks) and Output 3.3 (Community-based enterprises established to facilitate long-term, sustainable support to the implementation of NbS), considering the possible impacts of activities on local practices and, therefore, on tangible and intangible cultural practices and heritage.						The project has been designed (especially Output 1.4 (Participatory action plans and enforcement strategies for climate change adaptation in the riparian zones of the Steung Siem Reap (SSR) Watershed) considering the local context, where cultural heritage (tangible and intangible) elements are integrated in the local practices. Risk Treatment Owner: PMU/MoE
11	Impacts on the human rights, lands (and land-tenure arrangements), natural resources, livelihoods and traditional practices of indigenous peoples and other vulnerable and marginalised communities.	A lack of culturally-appropriate consultation processes to secure Free, Prior and Informed Consent of project-affected indigenous peoples is a cross-cutting cause of this risk. Risks could arise in activities under Output 2.1 (Nature-based solutions implemented in the Siem Reap/Phnom Kulen landscape to reduce flood impacts and improve water provisioning services), Output 2.2 (Sustainable landscape rehabilitation implemented through community-based	Exclusion of indigenous peoples from decision-making processes that affect them Potential infringement of the human rights of indigenous peoples (including land and resource use rights), potentially leading to grievances Disruption of traditional livelihoods and cultural practices, leading to economic	1. SOCIAL AND ENVIRONMENTAL (1.9. Indigenous peoples) - UNDP Risk Appetite: CAUTIOUS	**Likelihood:** 4 - Highly likely **Impact:** 4 - Extensive **Risk level:** SUBSTANTIAL (equates to a risk appetite of OPEN)	From: 01-Jun-26 To: 31-Dec-31	PMU/MoE	The project activities have been developed through participatory approach and participatory processes will be used during project implementation and will mitigate the identified risk. An **Indigenous Peoples Planning Framework (IPPF)** has been developed during PPG, including guidance on conducting consultations to secure Free, Prior and Informed Consent (FPIC), in line with national legislation, the UNDP SES Standard 6, UNDRIP and other applicable human rights law. The IPPF will guide the development of an **Indigenous People's Plan** (or plans) during the first year of project

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#	Event	Cause	Impact(s)	Risk Category and Sub-category	Impact, Likelihood & Risk Level	Risk Valid From/To	Risk Owner	Risk Treatment and Treatment Owner
		agroforestry initiatives focusing on diverse, high-value tree species that benefit agricultural livelihoods and enhance carbon stocks), Output 3.1 (Smallholder farmers trained in climate-resilient agricultural practices that improve productivity under water-stressed and flood-prone conditions), Output 3.2 (Enhanced commodity value chains and improved market linkages for key agricultural products and NTFPs) and Output 3.3 (Community-based enterprises established to facilitate long-term, sustainable support to the implementation of NbS).	and social challenges for indigenous communities Increased risk of conflicts between indigenous communities and other stakeholders involved in the project, such as government agencies or private sector entities practices.					implementation – this must be completed before any activities that may impact on indigenous communities are started. Specific measures related to indigenous traditional knowledge have been built into design of activities and the IPPF includes a description of further assessment and management plans to be developed under implementation (which may include a targeted assessment of indigenous knowledge) Additionally, the project will integrate the following principles into its implementation: • **Inclusive Participation:** Engage Indigenous Peoples in all stages of project planning and implementation in line with the CSEP (Comprehensive Stakeholder Engagement Plan) and IPP/F. • **Benefit Sharing:** Ensure fair and equitable sharing of project benefits with Indigenous Peoples, as per FPIC agreements. • **Safeguarding customary land use/access rights:** Provide support to Indigenous Peoples to

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#	Event	Cause	Impact(s)	Risk Category and Sub-category	Impact, Likelihood & Risk Level	Risk Valid From/To	Risk Owner	Risk Treatment and Treatment Owner
								safeguard their rights and mitigate any negative impacts on access to resources and opportunities. • The design and location of watershed management action, restoration and livelihoods activities must take existing land tenure arrangements. Risk Treatment Owner: **PMU/MoE**
12	Lack of coordination and buy-in among actors involved in watershed management	There is strong political support for the project. However, capacity constraints are currently impacting governance of watersheds in the TSB, particularly in terms of coordination actions between multiple sectors. There is a risk that the authority of coordination structures are not fully recognised . This includes the risk the community and private sector interests are not adequately represented in the decision-making process	Siloed management actions remain the norm – including uncoordinated actions towards competing priorities. Community and private sector may not fully buy in to the sustainable approaches promoted under the IWM approach. Policy briefs developed under Outcome 1 are not fully adopted and translated into action by decision makers.	4. ORGANIZATIONAL (4.1. Governance) - UNDP Risk Appetite: EXPLORATORY TO OPEN	**Likelihood:** 3 - Moderately likely **Impact:** 3 - Intermediate **Risk level:** MODERATE (equates to a risk appetite of EXPLORATORY)	From: **01-Jun-26** To: **31-Dec-31**	PMU/MoE	Component 1 of the project will directly address governance risks by building capacity and strengthening policy alignment. This will include providing policy briefs on the integration of climate resilience into national watershed management strategies and training decision-makers across various sectors involved in watershed management on the concepts of integrating climate resilience into watershed manage, including the benefits of doing so for various sectors and processes for collaborative action and inter-sectoral coordination. The project will draw on efforts under the closely linked ER-IP Project that are designing comprehensive institutional and coordination arrangements for IWM that build on existing structures that are recognised by relevant institutions. The capacity of these authorities will be strengthened to better facilitate cross-sectoral participation in the

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#	Event	Cause	Impact(s)	Risk Category and Sub-category	Impact, Likelihood & Risk Level	Risk Valid From/To	Risk Owner	Risk Treatment and Treatment Owner
								decision-making process, including ensuring adequate representation form different affected groups (such as private sector, community, and vulnerable groups). Policy briefs will be developed using a stakeholder-led approach, with extensive consultations underpinned by a multi-sectoral policy review. Involving decision makers in this process will promote ownership of the concepts put forward and the briefs. Decision makers will further be trained on the concepts of future climate risk and the implementation of adaptive practices. Effective integration of climate resilience into IWM approaches promoted through the policy briefs will also be enhanced through the development of a decision support tool Risk Treatment Owner: **PMU/MoE**
13	DST does not fully integrate the latest scientific and local knowledge.	The decision support tool being developed under Outcome 1 is reliant on the effective acquisition and processing of suitable data to develop advisories that will guide decision makers. There is a risk that such data is not adequately captured through the project knowledge and monitoring systems, or that data from outside sources – including scientific research and lessons from other initiatives – are not	DST does not provide a suitable platform for long-term decision-making	4. ORGANIZATIONAL (4.6. Knowledge management) - UNDP Risk Appetite: EXPLORATORY TO OPEN	**Likelihood:** 3 - Moderately likely **Impact:** 3 - Intermediate **Risk level:** MODERATE (equates risk appetite of EXPLORATORY)	From: 01-Jun-26 To: 31-Dec-31	PMU/MoE	The MEL framework being developed under Outcome 5 is structured to actively promote and guide the collection of data to be integrated into CEMIS to underpin the DST. Experts with detailed knowledge of data integration will be procured to ensure that the data processing meets the requirements to enable decision support recommendations that account for the needs and priorities of different sectors. Moreover, the assessments under Output 1.3 and Outcome 4 will be closely coordinated with the MEL system under Output 5.1, as well as

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#	Event	Cause	Impact(s)	Risk Category and Sub-category	Impact, Likelihood & Risk Level	Risk Valid From/To	Risk Owner	Risk Treatment and Treatment Owner
		adequately captured into CEMIS. There is also risk that the decision support tool does not adequately integrate information from different sectors to enable decisions that are coordinated and complementary between sectors.						the DST under Output 1.1 to ensure that all knowledge systems are fully integrated and compatible, with focus on interoperability. Risk Treatment Owner: **PMU/MoE**
14	There is a risk that private partners and other donors will not actively engage with the blended finance mechanism, resulting in continued siloing of investments.	The blended finance mechanisms proposed under Output 2.3, which is a core component of the financial sustainability of the landscape-level NbS initiatives in Siem Reap, is reliant on effective partnerships between the public sector, private sector, donors and communities, and the willingness of various actors to engage with the mechanism.	Sustainable finance does not flow downstream of the project	3. OPERATIONAL (3.6. Transition and exit strategy) - UNDP Risk Appetite: EXPLORATORY TO OPEN	**Likelihood:** 3 - Moderately likely **Impact:** 3 - Intermediate **Risk level:** MODERATE (equates risk appetite of EXPLORATORY)	From: 01-Jun-26 To: 31-Dec-31	PMU/MoE	The design of the blended finance mechanism will involve close consultation with all interested parties. Representatives of government institutions, private sector, donors and affected communities will be included in the co-development of the framework and roadmap that will underpin the operationalisation of the mechanism, including in the decision-making process to ensure that the actions funded through the mechanism not only meet the needs of the community, bt also contribute to the shared objectives of the various financial sources. Risk Treatment Owner: **PMU/MoE**
15	Markets do not develop	There is risk that the market for sustainable livelihoods is not adequately developed or that commodities to not meet the required standards to appeal to premium markets that	Farmers are not properly incentivised to adopt resilient practices.	3. OPERATIONAL (3.5. Partners' engagement) - UNDP Risk Appetite: EXPLORATORY TO OPEN	**Likelihood:** 3 - Moderately likely **Impact:** 3 - Intermediate **Risk level:**	From: 01-Jun-26 To: 31-Dec-31	PMU/MoE	To mitigate risks to livelihoods, communities will be training on the requirements for sustainable livelihoods, including business management and value chain development. A challenge fund will also be established to support the role of digital solutions in creating

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#	Event	Cause	Impact(s)	Risk Category and Sub-category	Impact, Likelihood & Risk Level	Risk Valid From/To	Risk Owner	Risk Treatment and Treatment Owner
		provide the additional financial incentive needed to scale climate resilient agricultural practices			MODERATE (equates risk appetite of EXPLORATORY)			partnerships throughout the agroecological value chain Risk Treatment Owner: **PMU/MoE**
16	Project not implemented in full compliance with the set rule and regulations	To manage development project, the implementing partner applies its financial rules and regulations, which meet the level of standard required as evidenced by the fact that partner receives overall risk rating as "low" based on the Micro Assessment conducted. Yet, there is risk that the project would not be implemented in full compliance with the set rule and regulation due to staffs turn over, limited staff technical expertise in the relevant areas, issue in segregation of duty.	Negative findings from the HACT follow up exercise (audit or spot check), hence would impede the implementation progress of the project.	2. FINANCIAL (2.5. Delivery) - UNDP Risk Appetite: MINIMAL TO CAUTIOUS	**Likelihood:** 3 - Moderately likely **Impact:** 3 - Intermediate **Risk level:** MODERATE (equates risk appetite of EXPLORATORY)	From: 01-Jun-26 To: 31-Dec-31	PMU/MoE	Clear expectation on the performance in project financial resources management will be clearly communicated with the national partner focal team, e.g. ensuring staffs with the required level of technical expertise to play to role as finance focal person, full compliance with the set rule and regulation is required. In addition, as a preventive measure, list of the past common audit/spot checks findings will be shared with the national partner. Regular HACT exercise (e.g. spot check or audit) will be scheduled on yearly basis on the partner. Risk Treatment Owner: **PMU/MoE**

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Annex 7: Overview of Technical Consultancies/Subcontracts

Submitted as separate Annex

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Annex 8: Stakeholder Engagement Plan

Submitted as separate Annex

Annex 9: Environmental Social Management Framework (ESMF)

Submitted as separate Annex

Annex 10: Gender Analysis and Gender Action Plan

Submitted as separate Annex

Annex 11: Procurement Plan

Submitted as separate Annex

Annex 12: Additional agreements:

such as cost sharing agreements, project cooperation agreements signed with NGOs (where the NGO is designated as the "executing entity"), letters of financial commitments etc.

Annex 13: Signed LOA between UNDP and IP requesting UNDP Support Services

Not Applicable

Annex 14: GEF CEO Endorsement/Approval

Annex 15: On-Granting Provisions Applicable to the Implementing Partner

Not Applicable

Annex 16: Terms of Reference for Project Board and Project Team

The standard Project Board TOR can be found here.

Annex 17: GEF Core indicators

Not Applicable

Annex 18: GEF Taxonomy

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		
	☒ Demonstrate innovative approaches		
	☒ Deploy innovative financial instruments		
☒ **Stakeholders**			
	☒ Indigenous Peoples		
	☒ **Private Sector**		
		☐ Capital providers	
		☐ Financial intermediaries and market facilitators	
		☐ Large corporations	
		☒ SMEs	

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		☒ Individuals/Entrepreneurs	
		☐ Non-Grant Pilot	
		☐ Project Reflow	
	☒ **Beneficiaries**		
	☒ Local Communities		
	☒ **Civil Society**		
		☒ Community Based Organisation	
		☒ Non-Governmental Organisation	
		☒ Academia	
		☐ Trade Unions and Workers Unions	
	☒ Type of Engagement		
		☒ Information Dissemination	
		☒ Partnership	
		☒ Consultation	
		☒ Participation	
	☒ **Communications**		
		☒ Awareness Raising	
		☐ Education	
		☒ Public Campaigns	
		☒ 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	
		☒ Capacity Development	
		☒ Learning	
	☒ Stakeholder Engagement Plan		
☐ **Gender Equality**			
	☒ Gender Mainstreaming		
		☒ Beneficiaries	
		☒ Women groups	
		☒ Sex-disaggregated indicators	
		☒ Gender-sensitive indicators	
	☒ Gender results areas		
		☐ Access and control over natural resources	
		☒ Participation and leadership	
		☒ Access to benefits and services	
		☒ Capacity development	
		☒ Awareness raising	

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		☒ Knowledge generation	
☒ Focal Areas/Theme			
	☐ Integrated Programs		
		☐ Commodity Supply Chains (Good Growth Partnership)	
			☐ Sustainable Commodities Production
			☐ Deforestation-free Sourcing
			☐ Financial Screening Tools
			☐ High Conservation Value Forests
			☐ High Carbon Stocks Forests
			☐ Soybean Supply Chain
			☐ Oil Palm Supply Chain
			☐ Beef Supply Chain
			☐ Smallholder Farmers
			☐ Adaptive Management
		☐ Food Security in Sub-Sahara Africa	
			☐ Resilience (climate and shocks)
			☐ Sustainable Production Systems
			☐ Agroecosystems
			☐ Land and Soil Health
			☐ Diversified Farming
			☐ Integrated Land and Water Management
			☐ Smallholder Farming
			☐ Small and Medium Enterprises
			☐ Crop Genetic Diversity
			☐ Food Value Chains
			☐ Gender Dimensions
			☐ Multi-stakeholder Platforms
		☐ Food Systems, Land Use and Restoration	
			☐ Sustainable Food Systems
			☐ Landscape Restoration
			☐ Sustainable Commodity Production
			☐ Comprehensive Land Use Planning
			☐ Integrated Landscapes
			☐ Food Value Chains
			☐ Deforestation-free Sourcing
			☐ Smallholder Farmers
		☐ Sustainable Cities	
			☐ Integrated urban planning
			☐ Urban sustainability framework
			☐ Transport and Mobility
			☐ Buildings
			☐ Municipal waste management
			☐ Green space
			☐ Urban Biodiversity
			☐ Urban Food Systems
			☐ Energy efficiency
			☐ Municipal Financing
			☐ Global Platform for Sustainable Cities
			☐ Urban Resilience

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	☐ Biodiversity		
		☐ Protected Areas and Landscapes	
			☐ Terrestrial Protected Areas
			☐ Coastal and Marine Protected Areas
			☐ Productive Landscapes
			☐ Productive Seascapes
			☐ Community Based Natural Resource Management
		☐ Mainstreaming	
			☐ Extractive Industries (oil, gas, mining)
			☐ Forestry (Including HCVF and REDD+)
			☐ Tourism
			☐ Agriculture & agrobiodiversity
			☐ Fisheries
			☐ Infrastructure
			☐ Certification (National Standards)
			☐ Certification (International Standards)
		☐ Species	
			☐ Illegal Wildlife Trade
			☐ Threatened Species
			☐ Wildlife for Sustainable Development
			☐ Crop Wild Relatives
			☐ Plant Genetic Resources
			☐ Animal Genetic Resources
			☐ Livestock Wild Relatives
			☐ Invasive Alien Species (IAS)
		☐ Biomes	
			☐ Mangroves
			☐ Coral Reefs
			☐ Sea Grasses
			☐ Wetlands
			☐ Rivers
			☐ Lakes
			☐ Tropical Rain Forests
			☐ Tropical Dry Forests
			☐ Temperate Forests
			☐ Grasslands
			☐ Paramo
			☐ Desert
		☐ Financial and Accounting	
			☐ Payment for Ecosystem Services
			☐ Natural Capital Assessment and Accounting
			☐ Conservation Trust Funds
			☐ Conservation Finance
		☐ Supplementary Protocol to the CBD	
			☐ Biosafety

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			☐ Access to Genetic Resources Benefit Sharing
	☒ **Forests**		
		☒ Forest and Landscape Restoration	
			☐ REDD/REDD+
		☐ Forest	
			☐ Amazon
			☐ Congo
			☐ Drylands
	☒ **Land Degradation**		
		☒ Sustainable Land Management	
			☒ Restoration and Rehabilitation of Degraded Lands
			☒ Ecosystem Approach
			☐ Integrated and Cross-sectoral approach
			☒ Community-Based NRM
			☒ Sustainable Livelihoods
			☒ Income Generating Activities
			☒ Sustainable Agriculture
			☐ Sustainable Pasture Management
			☒ Sustainable Forest/Woodland Management
			☒ Improved Soil and Water Management Techniques
			☐ Sustainable Fire Management
			☒ Drought Mitigation/Early Warning
		☐ Land Degradation Neutrality	
			☐ Land Productivity
			☐ Land Cover and Land cover change
			☐ Carbon stocks above or below ground
		☐ Food Security	
	☐ International Waters		
		☐ Ship	
		☐ Coastal	
		☐ Freshwater	
			☐ Aquifer
			☐ River Basin
			☐ Lake Basin
		☐ Learning	
		☐ Fisheries	
		☐ Persistent toxic substances	
		☐ SIDS : Small Island Dev States	
		☐ Targeted Research	
		☐ Pollution	
			☐ Persistent toxic substances
			☐ Plastics
			☐ Nutrient pollution from all sectors except wastewater
			☐ Nutrient pollution from Wastewater
		☐ Transboundary Diagnostic Analysis and Strategic Action Plan preparation	

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		☐ Strategic Action Plan Implementation	
		☐ Areas Beyond National Jurisdiction	
		☐ Large Marine Ecosystems	
		☐ Private Sector	
		☐ Aquaculture	
		☐ Marine Protected Area	
		☐ Biomes	
			☐ Mangrove
			☐ Coral Reefs
			☐ Seagrasses
			☐ Polar Ecosystems
			☐ Constructed Wetlands
	☐ Chemicals and Waste		
		☐ Mercury	
		☐ Artisanal and Scale Gold Mining	
		☐ Coal Fired Power Plants	
		☐ Coal Fired Industrial Boilers	
		☐ Cement	
		☐ Non-Ferrous Metals Production	
		☐ Ozone	
		☐ Persistent Organic Pollutants	
		☐ Unintentional Persistent Organic Pollutants	
		☐ Sound Management of chemicals and Waste	
		☐ Waste Management	
			☐ Hazardous Waste Management
			☐ Industrial Waste
			☐ e-Waste
		☐ Emissions	
		☐ Disposal	
		☐ New Persistent Organic Pollutants	
		☐ Polychlorinated Biphenyls	
		☐ Plastics	
		☐ Eco-Efficiency	
		☐ Pesticides	
		☐ DDT - Vector Management	
		☐ DDT - Other	
		☐ Industrial Emissions	
		☐ Open Burning	
		☐ Best Available Technology / Best Environmental Practices	
		☐ Green Chemistry	
	☒ **Climate Change**		
		☒ Climate Change Adaptation	
			☒ Climate Finance
			☒ Least Developed Countries
			☐ Small Island Developing States
			☐ Disaster Risk Management
			☐ Sea-level rise
			☒ Climate Resilience
			☐ Climate information

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			☒ Ecosystem-based Adaptation
			☐ Adaptation Tech Transfer
			☐ National Adaptation Programme of Action
			☐ National Adaptation Plan
			☐ Mainstreaming Adaptation
			☒ Private Sector
			☒ Innovation
			☒ Complementarity
			☒ Community-based Adaptation
			☒ Livelihoods
		☐ Climate Change Mitigation	
			☐ Agriculture, Forestry, and other Land Use
			☐ Energy Efficiency
			☐ Sustainable Urban Systems and Transport
			☐ Technology Transfer
			☐ Renewable Energy
			☐ Financing
			☐ Enabling Activities
		☐ Technology Transfer	
			☐ Poznan Strategic Programme on Technology Transfer
			☐ Climate Technology Centre & Network (CTCN)
			☐ Endogenous technology
			☐ Technology Needs Assessment
			☐ Adaptation Tech Transfer
		☐ United Nations Framework on Climate Change	☐ Nationally Determined Contribution
	☒ Rio Markers		
		☐ Paris Agreement	
		☐ Sustainable Development Goals	
		☐ Climate Change Mitigation 0	
		☒ Climate Change Mitigation 1	
		☐ Climate Change Mitigation 2	
		☐ Climate Change Adaptation 0	
		☐ Climate Change Adaptation 1	
		☒ Climate Change Adaptation 2	

Annex 19: Results of the Partners Capacity Assessment Tool (PACT) and HACT Micro Assessment

404. Submitted as separate Annexes (19a and 19b)

XIII. ADDITIONAL ANNEXES

Annex 20: Summary of Project Baseline Policies and Projects

Submitted as separate Annex

Annex 21: Landscape Profile and Situation Analysis

Submitted as separate Annex

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Annex 22: Investment Landscape Assessment and Financial Modality Survey for Long-term Sustainable Financing

Submitted as separate Annex

Annex 23: Climate Change Adaptation and Nature-Based Solutions

Submitted as separate Annex

Annex 24: Capacity Development Score Card Assessment Report

Submitted as separate Annex

Annex 25: Private Sector Engagement Framework

Submitted as separate Annex

Annex 26: Climate and Disaster Assessment

Submitted as separate Annex

Annex 27: Cultural Heritage Assessment

Submitted as separate Annex

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