



ADAPTATION FUND

AFB/PPRC.38/37
20-21 October 2026

Adaptation Fund Board
Project and Programme Review Committee
Thirty-eighth meeting
Bonn, Germany, 20-21 October 2026

Agenda Item 6 e)

LOCALLY-LED ADAPTATION SINGLE COUNTRY PROPOSAL FOR CAMBODIA

Background

1. At its thirtieth meeting, having considered document AFB/B.30/5/Rev.1, the Adaptation Fund Board decided:

(a) To adopt the medium-term strategy as amended by the Board, as contained in the Annex 1 of the document AFB/B.30/5/Rev.1 (the MTS); and

(b) To request the secretariat:

(i) To broadly disseminate the MTS and work with key stakeholders to build understanding and support;

(ii) To prepare, under the supervision of the MTS task force, a draft implementation plan for operationalizing the MTS, containing a draft budget and addressing key assumptions and risks, including but not limited to funding and political risks, for consideration by the Board at its thirty-first meeting; and

(iii) To draft, as part of the implementation plan, the updates/modifications to the operational policies and guidelines of the Adaptation Fund needed to facilitate implementation of the MTS, for consideration by the Board at its thirty-first meeting.

(Decision B.30/42)

2. Pursuant to decision B.30/42, subparagraph b (ii), the secretariat prepared a draft implementation plan for the MTS, including an assessment of assumptions and risks. The secretariat shared a version of the draft with the MTS task force for comments.

3. The draft implementation plan also contains suggestions for specific funding windows that might be opened under the MTS in complement of the Fund's existing funding windows for single-country and regional adaptation projects and readiness support projects. Following the approval of the implementation plan, the secretariat would present specific proposed details for each new funding window at subsequent meetings of the Board for its consideration, in accordance with the timeline contained in the implementation plan.

4. At its thirty-first meeting, the Adaptation Fund Board discussed the draft implementation plan for the MTS, and members of the Board proposed amendments to the document. The secretariat then presented a revised draft, in document AFB/B.31/5/Rev.1. Having considered that document, the Board decided:

(a) To approve the implementation plan for the medium-term strategy for the Fund for 2018–2022 contained in the Annex I to document AFB/B.31/5/Rev.1 (the plan);

(b) To request the secretariat:

[...]

- (iii) *To prepare, for each proposed new type of grant and funding window, a specific document containing objectives, review criteria, expected grant sizes, implementation modalities, review process and other relevant features and submit it to the Board for its consideration in accordance with the tentative timeline contained in Annex I to document AFB/B.31/5/Rev.1, with input from the Board's committees;*
- (iv) *Following consideration of the new types of support mentioned in subparagraph (b)(iii), to propose, as necessary, amendments to the Fund's operational policies and guidelines Fund to better facilitate the implementation of such new types of support; and*

[...]

(Decision B.31/32)

5. Having recognized that there was a high level of interest among the Fund's stakeholders on Enhanced Direct Access (EDA), a specific funding window on EDA was included in the MTS implementation plan to complement the Fund's existing funding window for single-country projects.

6. At the second session of its thirty-fifth meeting the Board considered the document AFB/PPRC.26.b/18, Window for Enhanced Direct Access under the MTS and the Board decided:

- (a) *To approve the pilot for projects submitted through the window for enhanced direct access (EDA) to promote EDA and further promote locally led adaptation under the Fund;*
- (b) *That the pilot window to promote EDA projects/programmes shall be available to national implementing entities (NIEs) only, in the form of a grant up to a maximum of US\$5 million per country;*
- (c) *That the window for EDA will not count against what the country could access under the country cap established by the Board for regular concrete projects/programmes;*
- (d) *That the execution costs for proposals submitted under the EDA window should be up to a maximum of 12 per cent of the total project/programme budget requested before the implementing entity fees, and should not exceed 1.5 per cent in cases where the Implementing Entity has also taken on the role of Execution Entity for the proposed project/programme activities, and that the implementing entity fee should be up to a maximum of 10 per cent of the total project costs;*
- (e) *That NIEs submitting proposals through the EDA window should do so using the existing approved proposal template and guideline materials for regular concrete projects/programmes nonetheless taking note of the project fees in subparagraph (d) and that EDA proposals submitted through the two-step project approval process are eligible for the project formulation grant and project formulation assistance grant as per the approved criteria by the Board for those grants;*
- (f) *That the review cycle and approval of projects/programmes submitted through the EDA window shall follow the review and approval process as well as reporting*

requirements for regular projects/programmes under the Fund notwithstanding adherence to subparagraph where it concerns the review and approval of project fees; and

(g) To request the secretariat to present to the PPRC at its twenty-eighth meeting, an analysis of the project review cycle for EDA projects including an update on the implementation status of the EDA window.

(Decision B.35.b/10)

7. The Adaptation Fund Board adopted at its thirty-ninth meeting in October 2022 the medium-term strategy of the Adaptation Fund for the period 2023-2027 (MTS-II). The strategy introduced a special emphasis on promoting locally led adaptation (LLA) in the Fund's work and included a new cross-cutting theme to "Promote locally based and locally led adaptation action including by devolving access and decision-making on adaptation finance to national, subnational, and local levels."

8. Three modalities were proposed through Decision B.40/72 in March 2023:

(a) Enhancing the existing Enhanced Direct Access window,

(b) Establishing a new Global MIE Aggregator programme for channeling grants for LLA to non-accredited entities,

(c) Opening the option for EDA-type national programmes for MIEs and RIEs.

9. The Adaptation Fund Board at its forty-second board meeting in April 2024, considered the paper entitled 'Additional delivery modalities for expanding support to locally led adaptation' and the Board decided:

Single country locally-led adaptation projects and programmes

a. To merge the window for enhanced direct access into an expanded and enhanced window for single-country locally led adaptation (LLA) projects/programmes as contained in paragraphs 37–42 of document AFB/PPRC.33/39;

b. That the window for single-country LLA projects/programmes will be available for access by eligible countries through national, regional or multilateral implementing entities, in the form of a grant of up to a maximum of US\$ 5 million per project;

c. That the window for single-country LLA programmes will continue to be financed outside the country cap established by the Board for regular concrete projects/programmes;

d. That single-country LLA proposals can be submitted through the three-step project approval process and are eligible for a project formulation grant (PFG) for a maximum of US\$ 150,000 as per the approved criteria by the Board for those grants;

e. That an additional PFG amount (inclusive of the management fee) can be provided on a case-by-case basis for LLA projects up to a maximum of US\$ 100,000, and that such amount should be dedicated to support activities that enable decision making by local actors over how adaptation actions are defined, prioritized, designed and implemented;

- f. *That, for a PFG at the pre-concept stage, up to 20 percent of the maximum amount of the PFG set in subparagraphs (d) and (e) above could be granted;*
- g. *To approve the revised proposal template and project review sheet contained in annex 3 and annex 4 to document AFB/PPRC.33/39, respectively;*
- h. *To request the secretariat to develop instructions for preparing requests for proposals and additional guideline materials for projects/programmes under this window;*

[...]

(Decision B.42/37)

10. Having considered the recommendation of the Project and Programme Review Committee, the Board decided to include in its work programme for fiscal year 2027 a provision for an amount of US\$ 50 million for single country LLA grants (B.46/52).

11. The following concept note proposal document titled “*Strengthening Community-Led Climate Adaptation and Resilient Livelihoods in the Angkor-Phnom Kulen Heritage Landscape, Cambodia*” was submitted for Cambodia by the United Nations Human Settlements Programme (UN-Habitat), which is a Multilateral Implementing Entity of the Adaptation Fund.

12. This is the fourth submission of the concept note proposal using the three-step submission process.

13. The current submission was received by the secretariat in time to be considered in the forty-seventh Board meeting. The secretariat carried out four technical reviews of the project proposal, with the Project ID number AF00000456.

14. In accordance with a request to the secretariat made by the Board in its 10th meeting, the secretariat shared this review sheet with UN-Habitat and offered it the opportunity of providing responses before the review sheet was sent to the PPRC.

15. The secretariat is submitting to the PPRC the summary and, pursuant to decision B.17/15, the final technical review of the project, both prepared by the secretariat, along with the final submission of the proposal in the following section. In accordance with decision B.25/15, the proposal is submitted with changes between the initial submission and the revised version highlighted or with track changes.



ADAPTATION FUND

ADAPTATION FUND BOARD SECRETARIAT
TECHNICAL REVIEW OF PROJECT PROPOSAL FOR
"STRENGTHENING COMMUNITY-LED CLIMATE ADAPTATION AND RESILIENT
LIVELIHOODS IN THE ANGKOR-PHNOM KULEN HERITAGE LANDSCAPE, CAMBODIA"

Project Title	Strengthening Community-Led Climate Adaptation and Resilient Livelihoods in the Angkor-Phnom Kulen Heritage Landscape, Cambodia
Project ID	AF00000456
Category	LLA
Type	Single country project
Stage	Concept
Country	Cambodia
Implementing Entity	UNHAB
Financing Requested	USD 4,999,420.00
Reviewer	Anjeeta Barnwal

Co-reviewer(s)

IE Contact Person

Cerin Kizhakkethottam, Daniella Chehade, Jun Fujihira, Odicea Angelo Barrios, Vanna Sok

Secretariat's Overall Comment

The proposal includes a PFG of US\$ 120,000.

The first technical review found that the proposal needs to address a number of issues such as strengthening the climate and LLA justification and ESP and GP requirements as raised in the CRs and CARs in the technical review. Further the components listed in the technical summary above are not consistent with the components outlined in the main project document. Please review and update the technical summary to ensure full alignment with the proposal's component structure.

During the second technical review, the Secretariat finds that all comments raised through the CRs and CARs have been addressed in the revised proposal. The only remaining issue is a minor inconsistency between the project title, component titles, and associated amounts under the technical summary and the revised project design. Please make these revisions.

The third technical review finds the component titles, order and amounts in the FIF online system and the proposal document (clean and track version) need to be reconciled. The first two components appear in reverse order on the platform. In the proposal, the component on strengthening local development and investment planning is Component 1 with an allocation of USD 392,000, while the component on developing and piloting prioritized investments is Component 2 with an allocation of USD 3,348,000. The online system presents these as Components 2 and 1, with allocations of USD 580,000 and USD 3,160,000, respectively. While the reversal of the components in the online system might be a technical issue - the component specific totals need to be consistent. Component 3 is consistently presented at USD 468,000. Please align the component titles, numbering and amounts with the final proposal and the FIF technical summary page avoiding any discrepancies between the 2. Further the project title in project document and the online system are different- this also needs to be consistent. Finally please include the components' totals in the proposal document (clean and track).

The final technical review finds that the pending CRs and CARs have been addressed.

Country Eligibility

Is the country party to the Kyoto Protocol and/or the Paris Agreement?

Response: Yes

Secretariat: Yes, Cambodia is a party to both climate treaties. It ratified the Kyoto Protocol on August 22, 2002, and it ratified the Paris Agreement on February 6, 2017.

Is the country a developing country particularly vulnerable to the adverse effects of climate change?

Response: Yes

Secretariat: Cambodia is a developing country particularly vulnerable to climate change, with rising temperatures, irregular rainfall, and recurrent floods and droughts affecting communities and ecosystems.

Project Eligibility

Has the designated government authority for the Adaptation Fund endorsed the project/programme?

Response: Yes

Secretariat: As per the Endorsement Letter dated 2 June 2026 issued by the Secretary of State, Ministry of Environment.

Response: Yes

Secretariat: The endorsement letter included in the annex is dated 25 June 2025. An updated endorsement letter should be provided together with the above mentioned revision.

Does the project / programme support concrete adaptation actions to assist the country and/or the local actors in addressing adaptive capacity to the adverse effects of climate change and build in climate resilience?

Response: Not Cleared

Secretariat: The proposal outlines Cambodia's climate and socioeconomic vulnerabilities, with emphasis on the targeted Siem Reap's heritage rich, tourism dependent context. It highlights climate sensitive livelihoods, weak subnational capacity, degraded watersheds, and inadequate drainage and storage systems. It proposes several interventions such as community based reforestation, watershed restoration, climate smart agriculture pilots, and eco village models that offer strong potential to build community and ecosystem resilience.

However, the proposal would benefit from further clarifications, particularly regarding:

- More comprehensive presentation of climate hazards going beyond droughts to include flooding and heatwaves which the project aims to address.
- Clear articulation of systemic barriers to adaptation.

- Stronger linkage between gender/social inclusion and climate-related vulnerabilities.
- Alignment of the project goal and objectives with the full set of adaptation interventions going beyond NBS.
- The climate resilience rationale for waste management and circularity interventions.
- The coherence and sequencing between Components 1 and 2 and a clear Theory of Change to clarify logic and assumptions.
- Streamlining of early sections to accommodate essential additions within page limits.

CR1: Based on the observed trends of climate data (temperature and rainfall), please provide description of all climate hazards going beyond drought to include flooding and heatwaves which the project aims to address.

CR2: Please include a dedicated section outlining systemic barriers to adaptation to establish a clear causal link between barriers and the project's objectives and components.

CR3: Please clarify how gender differentiated and social inclusion vulnerabilities relate to the identified climate hazards. There is a specific reference to women's intensive engagement in managing livestock (based on gender analysis). Please provide specific information about the vulnerability of this sector and clarify if any intervention aims to address this to enhance women's resilience to climate change.

CR4: Please elaborate on how waste management and circularity interventions contribute to climate resilience (e.g., reducing environmental degradation, improving ecosystem services, mitigating hazard exposure).

CR5: Since the above critical information needs to be added in the concept, consider streamlining the information in sections 1-6 to remain within the page limit.

CR6: Please clarify how Component 1 (assessments, planning, training) will inform and shape Component 2 (demonstration solutions). A description of sequencing, feedback loops, and decision making pathways will strengthen coherence.

CAR1: Please revise the project goal, objectives, components, and outcomes to reflect the integrated adaptation strategies proposed which goes beyond nature-based solutions and includes resilient infrastructure, and diversified livelihoods. The concept refers to only NBS in objectives and relevant components and outcomes. As stated appropriately in the incremental reasoning section, consider mentioning integrated adaptation solutions.

CAR2: Please refine the design to articulate the logical linkage between Components 1 and 2. This may include restructuring narrative sections, adjusting component descriptions, or revising outputs to reflect a coherent flow from assessments to implementation.

CAR3: Please reorganize and condense Sections 1–6 to incorporate the additional climate hazard analysis, barriers, gender-hazard linkages, and adaptation rationale while remaining within page limits. Prioritizing essential climate rationale and removing some background context will improve clarity and compliance.

Comments on the project design:

Component 1 (page 19) focuses on development and investment planning and capacity building; however, several proposed activities lack clarity, particularly:

- It is framed as an assessment, planning and capacity building component, but its title states that adaptive capacity will be strengthened "through Nature based Solutions (NbS)." This is inconsistent with the narrative and activities.

- The component indicates that Community Action Plans (CAPs) will be aligned with Commune Investment Plans (CIPs) and District Development Plans (DDPs) but simultaneously it highlights that CIPs and sub national plans currently lack climate responsive planning, gender integration, and attention to NbS. This creates a contradiction. Also, it is unclear if CIPs/DDPs will be updated based on CAP findings, whether these updates and associated budget allocations are intended to be long term institutional changes or limited to the project period.
- Output 1.2 and Output 1.4 both describe processes related to Community Action Plans (CAPs), which is overlapping and lacks clarity between planning and implementation functions. Output 1.2 focuses on preparing and formalizing CAPs, while Output 1.4 again references translating vulnerability findings into CAPs before introducing Community Implementation Agreements (CIAs).
- The sequencing of outputs is inconsistent and not fully logical. Output 1.3 (capacity strengthening) should ideally precede Output 1.2, as the skills developed under 1.3 are necessary for communities and authorities to effectively prepare CAPs under 1.2.
- Output 1.5 describes on the ground waste management improvements (segregation systems, composting, recycling, drainage related flood reduction). These are implementation level activities and doesn't seem to be aligned with the focus and other activities of Component 1. It seems to be a better fit in component 2.

CR87: Please strengthen Component 1 to improve coherence between the component title, outputs, and logical flow, in particular:

- Please update the component title ensuring consistency between the title and the activities described.
- Please clarify whether CIPs/DDPs will be updated based on CAP findings, how alignment will occur in practice, and whether these updates and associated budget allocations are intended as long term institutional changes or limited to the project period.
- Please distinguish CAP development (planning- Output 1.2) from CIA preparation (Output 1.4) (implementation and resource management), removing overlaps and ensuring each output has a clear and distinct scope, set of activities, and contribution to the results framework.
- Please review and revise the sequencing of outputs so that capacity strengthening (Output 1.3) logically precedes CAP preparation (Output 1.2).

Component 2 (page 20) presents several potentially relevant interventions with potential direct benefits to communities. However, the description lacks clarity, specifically:

- It appears to be an isolated component without any linkage with component 1 which is supporting significant work on assessments, community level planning and trainings. If the proposed interventions are already identified, it is unclear how the community based planning will translate into direct benefits to the communities.
- The component 2 mentions sustainable human settlements which is not a focus of this project except for output 2.5. How do these relate to the project's actual focus areas which includes broader landscapes and agriculture land and given that "settlements" typically refer to housing and related infrastructure.
- Output 2.1 focused on climate smart agriculture provides limited information on the specific practices, scale of interventions such as how many demonstration plots and how it will inform all the targeted beneficiaries. There is also limited information on how the project will support market linkages which is identified as a major problem. It also doesn't include sustainable agriculture practices to address land degradation which the context describes is caused primarily by unsustainable agriculture.
- Output 2.2 provides a general description of nursery strengthening and training activities, but it lacks key details on the scale of restoration, expected hectares to be restored, and how the nursery's production capacity aligns with community demand. It also lacks details of species or any proposed assessments which will lead to identifying appropriate species to support climate resilience.
- Outputs 2.3, 2.4, and 2.5 present potentially relevant ecosystem restoration, water management, and eco

village interventions, and it notes that it will rely on low technology, labour intensive methods. The proposal does not explain how these interventions were identified and how it links with the climate risk assessments and participatory planning processes in component 1. Additionally, the roles and responsibilities of communities and institutions across these outputs are not sufficiently described, making it unclear how community ownership, operation, and maintenance will be ensured.

- The proposed measures in Output 2.5 do not necessarily will lead to circular systems. They are good adaptation solutions but won't be able to supported a circular resource systems in the eco-villages. It lacks interventions that explicitly close material, water, nutrient, or energy loops to achieve circularity- such as wastewater or water re-use or recycling, waste and nutrient circularity through composting or biogas, and material circularity such as through use of local materials in village infrastructure, recycling of solid waste including plastics, etc. which could make the eco-village model truly circular and promote greater ecotourism.
- It is unclear how sewerage improvement is classified as an NBS.

CR8: Please strengthen the linkage, clarity, technical soundness, internal consistency of Component 2, in particular:

- Please articulate the logical linkage with Component 1.
- Broaden the reference to “sustainable human settlements” to align with the project’s actual scope.
- Please provide details on the scale and design of climate-smart agriculture demonstrations under Output 2.1, including the number of plots, specific measures that support resilience and reduce land degradation, how learning will be transferred to all targeted beneficiaries, and how market linkages which is described as a major barrier will be supported.
- Please specify the expected scale of ecosystem restoration under Output 2.2 (e.g., hectares restored) and explain how nursery production capacity corresponds to community demand and planned restoration targets.
- Please clarify the formal mechanisms for technical design, engineering oversight, and expertise for Outputs 2.3, 2.4, and 2.5, and explain how low-technology, labour-intensive methods will ensure long-term sustainability, withstand projected hazards, and be maintained over time.
- Please define and integrate the roles and responsibilities of community institutions and authorities across Outputs 2.3–2.5 to demonstrate how community ownership, operation, and maintenance will be ensured.
- Please broaden the activities of Output 2.5 to contribute to justify circularity approach.
- Please explain how Output 2.6 (“flood-resilient community nature-based infrastructure solutions, including sewerage and eco-wastewater systems”) qualifies as NbS, or revise the framing if all these interventions are not nature-based.
- Output 2.7 on climate information services is strategic but lacks details on what technologies will be deployed, what services will be provided, who will provide the services and the targeted beneficiaries.

Component 3 (page22) outlines a broader mechanism to knowledge sharing and policy integration but looks quite traditional one-way knowledge management approach with limited innovation. In particular, there is limited information about roles of different actors and strategic partners in implementing these activities.

CR9: Please clarify the institutional and technical arrangements for Component 3, including development of knowledge products, policy briefs and role of community institutions in documentation, dissemination. Please also explain how community generated knowledge will be protected, credited, and integrated into policy mechanisms to ensure meaningful and equitable participation. Refer to the comments made in Question 10 under the Knowledge Management approach to address more specific comments.

As presented, several outputs across components read more like activity descriptions rather than clearly defined outputs. The component narratives do not describe the key activities that will deliver those outputs, and they

don't present a clear and logical linkage between activities, outputs, and the project's adaptation objectives.

CAR4: Please revise the component descriptions to:

- Specify the key activities that will deliver each output;
- Make the outputs consistent with activities under each component; and
- Demonstrate a coherent linkage between activities, outputs, and the project's adaptation

CAR5: Under the Theory of Change (page 17), please consider including a simple diagram illustrating the change pathway: Climate Hazards → Vulnerabilities → Barriers → Inputs → Outputs → Outcomes → Impact, and incorporate the underlying assumptions. The current narrative suggests separate, unconnected pathways to achieve outcomes, which makes it difficult to understand the project's overall logic.

Response: **Cleared**

Secretariat: CR1: Cleared.

The proposal provides details on key climate hazards, including flooding, heat waves and link them with the agriculture and tourism sectors. The proposed interventions appropriately address these risks through targeted nature based and resilience building measures.

CR2: Cleared.

A dedicated section outlining systemic barriers to adaptation has been included on pages 9-10 establishing a linkage with components and outputs.

CR3: Cleared.

The updated proposal (page 7) now explains how climate hazards disproportionately affect women through their extensive role in livestock management. The revision strengthens the gender analysis by detailing sector specific vulnerabilities and expanding Output 2.1 to include "climate resilient livestock practices co designed with women's groups," which directly enhances women's resilience to climate change. This is a strong addition.

CR4: Cleared. Table 5 and Output 2.8 provide a clear justification for the waste management interventions and circularity. The proposal explains how these measures will reduce flooding, protect ecosystem services, and lower the incidence of vector borne diseases.

CR5: Cleared. The revised content has been streamlined and now reads clearly and concisely.

CR6: Cleared (Page 17): Sequencing and linkage between Component 1 and Component 2.

The updated proposal clarifies that Component 2 investments are direct outputs of Component 1, and that lessons generated under Component 2 will feed back into the CAP process under Component 1. This demonstrates a strong and coherent feedback loop within the project design.

CAR1: Partially cleared. The proposal has updated the goal, objective and components and clearly reflects integrated adaptation strategies such as small-scale climate resilient infrastructure, diversified livelihood going beyond nature-based solution.

However, the project title remains unchanged, and the component titles and associated amounts under the technical summary are inconsistent and continue to suggest a sole focus on nature based solutions.

Please update the project title, revise the component titles, and validate the amounts under the project

summary to ensure consistency and alignment with the project scope.

CAR2 and CAR3: Cleared. The narrative has been updated and the sequencing between components is clearly explained.

CR7, CR8, CR9, & CAR5: Cleared. Pages 15-18.

Thank you for comprehensively addressing all design, governance, technical, and knowledge management comments.

Component 1 has been strengthened through revised titles, clarified sequencing, and clear distinction between CAP development and CIA implementation. Table 7 now clearly outlines institutional roles, and the proposal explains how CAPs will be institutionalized and integrated into CIP and DDP updates.

Component 2 now presents a coherent linkage with Component 1, and describes climate smart agriculture practices, regional nursery capacity, restoration scale, hybrid NbS sewerage infrastructure, and circular eco village systems.

Technical oversight, community roles, O&M responsibilities, and long term sustainability are explained. Key activities associated with each output are now included in Table 5, improving internal consistency and clarity.

Component 3 describes institutional arrangements, explain roles for community institutions, and outlines mechanisms for protecting, crediting, and validating community generated knowledge. Outputs now align with activities and demonstrate coherent linkage to outcomes and adaptation objectives.

The Theory of Change has been updated with a diagram and underlying assumptions, improving clarity and overall project logic.

[10 August 2026].

Response: Cleared

Secretariat: CAR 1: Cleared (Page 18)

Does the project/programme enable devolving decision making to the lowest appropriate level? Does it give local institutions and communities more direct access to finance and decision-making power over how adaptation actions are defined, prioritized, designed, implemented; how progress is monitored and how success is evaluated.

Response: Not Cleared

Secretariat: The proposal presents a good foundation for community driven adaptation and outlines several mechanisms (page 15,16 & 18) intended to devolve decision making, including:

- creation of Primary Groups, Community Development Councils (CDCs), Community Action Plans (CAPs) and Community Implementation Agreements (CIAs)
- community-defined criteria for sub-projects selection
- community led implementation

- social audit and knowledge integration

These elements illustrate strong grounding in LLA principles. However, the components and governance arrangements do not consistently show how communities and local institutions will meaningfully shape adaptation priorities, design interventions, manage funds, and monitor results. Clarifying roles, authority, knowledge pathways, and institutionalization mechanisms will strengthen the LLA architecture and ensure durable, community driven adaptation outcomes.

CR10: Please clarify which decisions are delegated to community groups versus those retained by Commune/Sangkat Councils, NCSD, and UN Habitat. This includes procurement, budgeting, reallocations, reporting, and sub project selection. A clear delineation of authority is needed to assess whether decision making is truly devolved.

CR11: Please elaborate how communities will design interventions, lead implementation, conduct monitoring, and revise CAPs based on learning. Clarify how the project will ensure that local priorities meaningfully shape adaptation actions rather than communities primarily validating defined interventions. For example, it is not clear from the proposal that pilots of Component 2 will be based on Component 1 where communities are involved. In the current form, they seem to be implementing agencies only than decision making authorities.

CR12: Please clarify how community knowledge will be documented, validated, protected, and integrated into policy briefs, scaling guidelines, and institutional learning.

CR13: Please describe mechanisms for resolving disputes related to prioritization, beneficiary selection, or implementation challenges within community structures.

CAR6: Please revise the proposal to clearly demonstrate how devolved decision making will be embedded within Commune/Sangkat planning systems and sustained beyond the project period. This should include an operational description of how community level decision making and LLA principles are integrated across the project cycle, specifying community roles across components and identifying the activities where community authority is exercised.

CAR7: Please include a clear governance structure, institutional structure with clear roles for each and fund flow mechanism among community groups, local authorities, NCSD, MoE and UN Habitat.

CAR8: Please expand the description of how community groups will be capacitated to manage direct fund transfers, including registration requirements, fiduciary safeguards, compliance with national/local laws, and measures to mitigate financial and project management risks.

Response: Cleared

Secretariat: CR10–CR13, CAR6–CAR8: Cleared. Pages 15–18; Governance Diagram (page 38).

Thank you for revising the narratives and including table 7 and figure 10. The updated proposal clearly delineates roles and decision-making authority across the community groups, commune/councils, MOE and UN-habitat. The grievance redress mechanism is well described and the proposal explains sustained local decision making, including confirmation that pilot investments will be based on community prioritization rather than a pre set menu.

The integration of CAPs into CIAs, CIPs, and DDPs, together with the formalization and continuation of CDCs beyond 2031, is clearly presented and strategically sound. The proposal describes how communities will be capacitated to manage direct fund transfers.

Figure 10 provides a clear and coherent overview of institutional and community governance structure.

Does the project / programme provide economic, social and environmental benefits, particularly to vulnerable communities, including gender considerations, while avoiding or mitigating negative impacts, in compliance with the Environmental and Social Policy and Gender Policy of the Fund? Does the project/programme address structural inequalities faced by women, youth, children, people with disabilities, people who are displaced, Indigenous Peoples and marginalized ethnic groups?

Response: Not Cleared

Secretariat: Not Cleared.

The proposal outlines a broad set of expected economic, social, and environmental benefits and acknowledges several vulnerable groups. However, key gaps remain in how environmental and social risks are identified, assessed, and managed in alignment with the Adaptation Fund's Environmental and Social Policy (ESP). The benefits described are not fully grounded in the component design, and several livelihood activities referenced are not reflected in the interventions, making it difficult to assess feasibility, magnitude, and monitoring pathways. Additional clarity on affected community groups, risks, safeguards, and alignment between benefits and components is required.

CR14: Please identify potential environmental, social, and gender risks associated with the proposed interventions including small construction activities and work with forest protection communities and describe measures to avoid, mitigate, and monitor these risks in line with the AF ESP.

CR15: Please explain whether indigenous peoples and displaced populations are present in the project area and, if so, describe their specific vulnerabilities, expected benefits, and how they will be meaningfully engaged, supported and protected under the project.

CR16: Please clarify how the livelihood benefits listed (e.g., NTFP processing, climate resilient horticulture, green enterprises) correspond to specific activities, budgets, and outputs within the components, and how these benefits will be delivered and monitored. Many of these measures are not included in the project description.

CAR9: Please revise the section to provide a clear, structured assessment of environmental and social risks, including screening, mitigation measures, monitoring arrangements, and institutional responsibilities, ensuring full alignment with the AF ESP.

CAR10: Please revise the component descriptions to reflect all livelihood and resilience activities referenced in the benefits section, or adjust the benefits section to align with the actual interventions. This will ensure clarity on how benefits are financed and monitored.

Response: Cleared

Secretariat: Cleared. Pages 18-20, 28

The updated proposal provides a clear presentation of economic, social, and environmental benefits, grounded in the component design and aligned with the AF ESP and Gender Policy.

Beneficiary estimates are clearly defined, with explicit inclusion of women, youth, persons with disabilities, forest dependent communities, and other marginalized groups.

CR14 and CAR9: Cleared. Table 17 presents a structured environmental and social risk assessment covering screening, mitigation, monitoring, and institutional responsibilities for all relevant risk themes.

CR15: Cleared. The secretariat welcomes the commitment to conduct a dedicated screening for the indigenous people at the full proposal stage (page 27).

CR16 and CAR 10: Cleared. The narrative is streamline and fully consistent with the proposed interventions.

[10 August 2026].

Is the project / programme cost effective?

Response: Pending

Secretariat: The proposal presents a generally good cost effectiveness narrative (25-28), including comparison with alternatives, unit cost estimates, locally-led delivery, and justification for allocating a high proportion of resources to community level investments. However, gaps remain in how cost effectiveness is demonstrated across components, intervention types, and delivery modalities. Strengthening the logical linkage between components, expanding analysis beyond NBS, and contextualizing unit cost figures will improve the robustness of the assessment.

CR17: Please clarify how investments in Component 1 (community planning, assessments, capacity building) inform the identification and implementation of Component 2 pilot interventions. Without this linkage, there is a risk of siloed investments in the two components which may not deliver desired impact for communities and value for money.

CR18: Please provide cost effectiveness justification for non NBS interventions, including resilient infrastructure, sustainable agriculture, circular solutions, and knowledge/policy support. This will ensure that the analysis reflects the full scope of project investments. Also, consider providing an assessment of how such an integrated approach will be more cost-effective compared to specific sectoral solutions.

CR19: Please strengthen the unit cost analysis by comparing estimated unit costs with similar interventions in AF, GEF, GCF, or other upland landscape projects referenced in the proposal. Comparative benchmarks are needed to interpret whether the proposed unit costs represent efficient use of resources.

CR20: Please provide additional explanation for the exceptionally higher unit cost (\$3571 compared to the overall \$45 per person) under Output 2.2 and clarify why this measure is cost effective relative to alternatives and should be included.

CR21: Please elaborate on how direct contracting with community groups will ensure lower transaction costs considering that there may be potential gaps in financial management capacity and first time contract administration which will have attached costs. Clear institutional systems, safeguards and efficiency mechanisms are needed to justify this delivery modality.

CAR11: Please revise the cost effectiveness section to reflect a coherent flow from Component 1 enabling functions to Component 2 investments, demonstrating how upstream activities reduce downstream costs, improve targeting, and enhance overall efficiency.

CAR12: Please complement the unit cost analysis table with a clear narrative to explain how the project is more cost effective when compared to unit costs of alternative and similar interventions.

Response: Not Cleared

Secretariat: N/A

Response: Cleared

Secretariat: CR17 & CAR11: Cleared. Page 20.

The revision clearly explains the sequencing between Components 1 and 2. The proposal now clarifies that how Component 1's enabling functions-community planning, vulnerability assessments, and capacity building directly inform the identification, prioritization, and implementation of Component 2 pilot interventions.

CR18, 19 & CAR12: Cleared. Page 22-23.

The narrative and Table 11 on the cost effectiveness of non NBS solutions provide a comprehensive overview of how the integrated approach is both cost effective and conservative compared to alternative options. Table 12, which benchmarks similar projects, further strengthens the justification for the project's cost effectiveness. The comment is addressed.

CR20: Cleared. Page 22.

Thank you for clarifying that the per unit cost under Output 2.2 (US\$3,571.43) reflects only the cost of training 70 nursery operators and community representatives, and not the larger population benefiting from the nursery's annual seedling production (50,000 seedlings supporting 150 ha of restoration).

CR21: Cleared. Page 20.

The revision provides a clear explanation of how direct contracting with community groups can reduce net transaction costs when paired with planned fiduciary pathway.

The description of safeguards and efficiency mechanisms is comprehensive. Output 1.2's fiduciary training and independent assessments, milestone based disbursement, dual signatory accounts, quarterly reporting, and spot check audits collectively address potential gaps in financial management capacity and first time contract administration.

[10 August 2026].

Is the project / programme consistent with national, sub-national or local sustainable development strategies, national, sub-national or local development plans, poverty reduction strategies, national communications and adaptation programs of action and other relevant instruments?

Response: Not Cleared

Secretariat: The proposal demonstrates strong alignment with key national and sub national climate and development frameworks (CCCSP, NDC 3.0, Rectangular Strategy IV, Vision 2050, National Forest Programme, Siem Reap Tourism Master Plan) and shows how project components link to CDPs/CIPs/DDPs and SDGs. This alignment can be further strengthened by explicitly outlining how the project is consistent with national poverty reduction strategies, national communications to the UNFCCC, and adaptation programmes of action/NAPs,

which are not currently referenced.

The proposal also indicates that climate risk, nature based solutions (NbS), and community priorities will be integrated into CDPs, CIPs, and DDPs under Component 1, however, there is limited information in the project on how this integration will be operationalized, including the processes and institutional arrangements.

CR22: Please revise the proposal to strengthen alignment with national adaptation frameworks, national communications to the UNFCCC, and the NAP/NAPA processes. In addition, please provide a clear and operational description of how climate risk, NbS, and community priorities will be integrated into CDPs, CIPs, and DDPs under Component 1, including the institutional arrangements, processes, and responsibilities that will enable this integration.

Response: Cleared

Secretariat: CR22: Cleared. Pages 24-25.

The proposal now provides a clear explanation of how the proposed interventions, including vulnerability and risk assessments, target sectors, and livelihood investments are aligned with national poverty reduction strategies, national communications to the UNFCCC, and Cambodia's NAPA/NAP processes.

The description of institutional arrangements under table 13 and processes for integrating climate risk, NbS, and community priorities into CDPs, CIPs, and DDPs under Component 1 is comprehensive and operational.

[10 August 2026].

Does the project / programme meet the relevant national technical standards, where applicable, in compliance with the Environmental and Social Policy of the Fund? Does the project provide support to local actors and build their capacities to comply with the standards?

Response: Not Cleared

Secretariat: The proposal presents a comprehensive list of national laws, sectoral standards, and approval processes, and articulates an intention to comply with environmental and social safeguards throughout design, implementation, and monitoring (page 30-32). Table 12 provides an overview of relevant national technical standards, rules, regulations, compliance procedures, and responsible authorities across all outputs.

However, the proposal does not explain what specific training, tools, or technical assistance will be provided to enable communities and community institutions to comply with engineering, environmental, heritage, and protected area regulations, nor does it clarify who will deliver these trainings.

This creates a critical gap, as compliance with technical standards requires targeted capacity building for local actors who will be responsible for implementation, monitoring, and operation and maintenance of subprojects.

CAR13: Please include an additional column in table 12 to incorporate details on the training, tools, and technical assistance that will be provided to communities and community institutions to enable them to comply with the relevant technical standards, rules, and procedures

Response: Cleared

Secretariat: Cleared. Page 28 (table 18).

The addition of Column 5 on training, tools, and technical assistance is very useful. It clearly outlines the support to be provided and identifies the responsible authorities for delivering trainings to communities and community institutions to enable compliance with relevant technical standards, rules, and procedures. The comment is addressed.

[10 August 2026].

Is there duplication of project / programme with other funding sources? Does the project enhance collaboration across sectors and enhance efficiencies and good practice?

Response: Not Cleared

Secretariat: The proposal provides a detailed overview of ongoing and pipeline projects in Table 13 and indicates that no known initiatives duplicate the proposed activities in Siem Reap Province. It also identifies potential synergies with 11 projects and describes how lessons learned from GEF, GCF, IFAD, UNDP, and Oxfam initiatives have informed project design.

However, several proposed interventions (ecosystem restoration, nature based tourism, climate smart agriculture, and water management) closely resemble the activities implemented by other ongoing projects operating in upland or mountainous landscapes (example: Cardamom Mountains, Phnom Kulen).

The proposal also doesn't refer to a recent AF Funded and UN-Habitat project titled "Increasing Climate Resilience Through Small-Scale Infrastructure Investments and Enhancing Adaptive Capacity of Vulnerable Communities in Kampot and Koh Kong Provinces in Cambodia" and describe how this project informed the proposal, will avoid duplication and complement the proposed project.

The proposal should further clarify how duplication will be avoided and how complementarity with these initiatives will be ensured. It would also be helpful to outline mechanisms for cross sector collaboration, coordination with relevant institutions, and systematic integration of good practices, including how sectoral efficiencies will be leveraged during implementation.

CAR14: Please strengthen the proposal by elaborating how duplication will be avoided, how complementarity with existing initiatives will be ensured, how coordination with relevant institutions will be institutionalized, and how sectoral efficiencies will be leveraged to integrate good practices and avoid overlap. Please include the recent AF Funded project in Cambodia referenced above and describe its linkages to this proposal.

Response: Cleared

Secretariat: CAR14: Cleared. Pages 31-32.

The proposal provides a comprehensive explanation of how duplication will be avoided and complementarity ensured.

The revision includes the Adaptation Fund financed UN Habitat project "Increasing Climate Resilience Through Small-Scale Infrastructure Investments and Enhancing Adaptive Capacity of Vulnerable Communities in Kampot and Koh Kong Provinces in Cambodia" and clearly distinguishes its lowland, coastal focus from the upland implementation areas of the current proposal. It also highlights that the new project is informed by the previous one, particularly in relation to community contracting modalities, GRM design, and ESP screening.

The proposal further distinguishes its interventions from other upland landscape projects and clearly explains

geographic scope, delivery modality, and heritage area requirements.

[10 August 2026].

Does the project / programme have a learning and knowledge management component to capture and feedback lessons, in particular managing traditional and/or indigenous knowledge, where relevant? Does it contribute to building and institutionalizing local capabilities?

Response: Not Cleared

Secretariat: The proposal presents a clear learning and knowledge management component and outlines participatory monitoring, knowledge products, and multi level capacity development. It also states that knowledge products and findings will be integrated into a dynamic knowledge base and made accessible to donors, which is strategic. This section can be further strengthened by clarifying where this knowledge base will be hosted, and how they will be made accessible to broader communities, local institutions, and future initiatives.

In addition, while the proposal describes capacity development at multiple levels, it provides limited detail on how knowledge management processes will be institutionalized and sustained, including whether strategic partnerships with universities, research institutions, or national knowledge platforms will be established to support long term learning. The knowledge management approach also lacks use of innovative approaches such as digital technologies, knowledge exchange platforms, community of practices, etc. which are increasingly being used to strengthen adoption, retention and application of knowledge.

CR23: Please clarify how knowledge products and findings will be hosted and managed and how they will be made accessible to broader groups. Also, please describe the mechanism for institutionalizing and sustaining knowledge management process including partnership and collaboration with relevant knowledge institutions. The proposal would also benefit from a clearer explanation of how traditional and Indigenous knowledge will be identified, protected, and integrated into learning systems, particularly given the project's focus on forest dependent and heritage adjacent communities.

The knowledge management approach will also be strengthened with adoption of innovative technologies and approaches to make knowledge sharing and learning a two-way process.

The proposal mentions "systematic feedback mechanisms to update CAPs, CIPs, and local development plans," but it remains unclear whether CAPs and CIPs will continue beyond the project period, how the feedback loop will function, who will manage it, and how communities will be supported to lead adaptive learning.

CAR15: The proposal can be enhanced by adding an explanation of how traditional and Indigenous knowledge will be identified, protected, and integrated into learning systems and details on how feedback loops for updating CAPs, CIPs, and local development plans will function, who will manage them, and how communities will be supported to lead adaptive learning.

Response: Cleared

Secretariat: CR23 and CAR15: Cleared. Pages 32-33 (Section G para- 1,6, 7, 8 & 9).

The proposal explains that the hosting platform will be the project website, mirrored on the Ministry of Environment's departmental portal, and that it will continue to be maintained under MoE custodianship after project closure.

On institutionalization and sustainability, the added paragraphs outlining collaboration with the Royal University

of Phnom Penh and the Royal University of Agriculture for applied research and independent validation are strategic and well justified.

Regarding identification and integration of Indigenous and traditional knowledge, the proposal explains that this will be targeted under Output 1.1 and treated as a distinct knowledge stream with its own identification, protection, and integration protocol. This is appropriate given the project's focus on forest dependent and heritage adjacent communities.

The inclusion of mobile data collection tools such as KoBoToolbox for participatory monitoring and CAP/CIP review data and the SMS or messaging app based query channel enabling CDCs and Commune Councils to raise technical questions directly with the Executing Entity's technical team is innovative and appreciated.

The proposal also clarifies the systematic feedback mechanism described in paragraph 9 for updating CAPs, CIAs, and local development plans. It clearly articulates that CAPs and CIAs will be revalidated in annual CDC review meetings and adopted as standing commune planning instruments, ensuring continuity beyond the project period.

[10 August 2026].

Has a consultative process taken place, and has it involved and encouraged all key stakeholders, and vulnerable groups, to meaningfully participate in and lead adaptation decisions? Did the consultative process consider and address gender-based, economic and other inequalities in compliance with the Environmental and Social Policy and Gender Policy of the Fund?

Response: Not Cleared

Secretariat: The proposal provides a detailed overview of the consultation process, including dates, venues, stakeholders, and gender disaggregated participation data. It also includes an initial gender assessment (annex3) and indicates that deeper analysis will be undertaken during the full proposal development stage. However, table 14 and annex 1 and 2 indicates that only a limited number of consultations were conducted specifically with communities, and the data presented aggregates community participation with ministries, corporations, local government, CSOs etc. This makes it difficult to determine how many community members were actually consulted. The number of women consulted is also limited, and the proposal indicates that Women's CSOs will be consulted during the full concept note development stage rather than having been engaged meaningfully at this stage.

CR24: Please clarify how many consultations were conducted directly with communities, and provide disaggregated data separating community participants from institutional stakeholders, as well as data disaggregated by women and disadvantaged groups. Please also explain how the community consultations have informed the overall design of the project.

Response: Cleared

Secretariat: CR24: Cleared.

The project's plan to conduct disaggregation by relevant dimensions beyond sex is noted.

New table 21 and associated narrative explains community consultations and how it has informed the identification of climate risks, prioritisation of livelihood opportunities, and the development of budgets and indicators. Engagement with women's CSOs and with the Ministry of Women's Affairs in developing the gender action plan is acknowledged.

[10 August 2026].

Is the requested financing justified on the basis of full cost of adaptation reasoning?

Response: Not Cleared

Secretariat: The proposal presents a strong narrative explaining why Adaptation Fund financing is needed. It includes a comparative table (Table 15) that distinguishes the baseline development scenario from the results achievable with AF support, and it outlines climate hazards, institutional constraints, and the incremental benefits enabled by AF financing. This provides a strong foundation for full cost of adaptation reasoning. However, several areas can be strengthened to fully meet AF requirements. The barriers to adaptation are mentioned but not explained systematically, and some climate hazards referenced in this section such as extreme heat are not targeted in the proposed adaptation measures. The cost per beneficiary estimate (USD 3.83–3,571.43) is very wide and not consistent across proposal and doesn't provide supporting analysis or references. Additionally, the proposal notes that cost effectiveness is enhanced through co financing and in kind contributions, but it is unclear whether this co financing is indicative or confirmed, what the specific sources are, and how these contributions complement AF financing and contribute to adaptation outcomes.

CR25: Please provide a more systematic explanation of the barriers to adaptation and clarify how all referenced climate hazards including extreme heat are addressed through the proposed measures to strengthen the adaptation reasoning. Additionally, please explain the methodology used to calculate the cost per beneficiary and provide supporting analysis or references to justify the wide range presented.

CR26: Please clarify whether the co financing and in kind contributions referenced are indicative or confirmed, identify their specific sources, and explain how these contributions complement AF financing and directly support adaptation outcomes.

Response: Cleared

Secretariat: CR25: Cleared. Pages 10, 36, 37.

The revisions in the earlier sections address the comments related to barriers. In addition, table 22 provides a clear overview of how the proposed interventions respond to existing climate hazards such as drought, extreme heat, flooding, and erosion.

The cost-per-beneficiary methodology is explained in table 9 and section I.

CR26: Cleared.

The proposal confirms that the co financing and in kind contributions are indicative at this stage and clarifies the expected sources. It further explains that these funds and support will complement Adaptation Fund resources for O&M after project completion. The proposal also notes that CPA/Forest Protection Committee land access avoids both the cost and safeguard risks associated with land acquisition, and that using local labour contributes

to cost efficiency.

[10 August 2026].

Is the project / program aligned with AF's results framework?

Response: Not Cleared

Secretariat: The proposal presents a structured results framework table aligned with Adaptation Fund's outcome 1-6. However, numeric indicative targets are missing for all project specific indicators, including the number of climate informed plans, households adopting climate smart agriculture, physical assets established, indicative number of beneficiaries covered across interventions, and knowledge products produced. Without quantified targets, the results framework is not fully measurable and does not meet AF requirements for SMART indicators.

CAR16: Please update the result framework table to include targets for all project specific indicators and ensure these targets are integrated consistently across components.

Response: Cleared

Secretariat: CAR16: Cleared.

The revision includes Table 28, which outlines indicative targets for project specific indicators. These targets are also integrated across components and reflected in the cost effectiveness table, contributing to a coherent and well aligned project design.

[10 August 2026].

Has the sustainability of the project/programme outcomes been taken into account when designing the project? Does the project/programme support long-term development of local governance processes, and improve the capacity of local institutions to ensure that communities can effectively implement adaptation actions over the long term?

Response: Not Cleared

Secretariat: The proposal explains sustainability (page 40-41) across institutional, social, economic, financial, environmental, infrastructure, and knowledge dimensions. It outlines that climate adaptation is integrated into CDPs, CIPs, DDPs, and CPA management plans, which will help ensure that adaptation priorities are embedded in regular planning and budgeting cycles. However, there is limited information about these plans and mechanism for updating this.

CR27: Please consider briefly describing these plans to distinguish their functions and clarify their importance and linkages within the project's sustainability strategy and how these plans will be updated.

The proposal indicates that operation and maintenance (O&M) responsibilities will be defined before infrastructure completion, with Community Maintenance Committees overseeing community level assets, while Forest Protection Committees and eco village groups will support ecosystem stewardship. Community institutions including CDCs, Commune Councils, and Forest Protection Committees are expected to continue

oversight and adaptation activities beyond project completion, ensuring benefits are sustained after 2031. This is very strategic and ensures overall sustainability of the project.

However, several community and institutional bodies are mentioned throughout the project and also in this section but their roles, composition, and linkages are not clearly described. These could be streamlined and presented more coherently ideally through a diagram to clarify their functions, relationships, and whether they will continue operating beyond the project period.

CAR17: Please strengthen the proposal by describing the roles and linkages of the various community and institutional bodies, outlining the implementation structure by incorporating a clear diagram, and explaining how the relevant planning instruments will be updated.

Response: Cleared

Secretariat: CR27 & CAR17: Cleared. Page 38-39.

The proposal provides a clear description of the roles and linkages among the various community and institutional bodies involved in implementation and sustainability. The revision explains that the entities referenced throughout the proposal form a unified governance structure rather than separate or parallel bodies. Figure 10 effectively delineates their respective roles and reporting lines, distinguishing standing institutions that persist beyond 2031 from operational groups convened for specific project functions.

The proposal also clearly distinguishes the four planning instruments (CDPs, CIPs, CAPs & DDPs) and their sustainability functions.

[10 August 2026].

Does the project / programme provide an overview of environmental and social impacts / risks identified, in compliance with the Environmental and Social Policy and Gender Policy of the Fund?

Response: Not Cleared

Secretariat: The project indicates an expected Category B classification and identifies anticipated risks primarily associated with physical investments, including water-harvesting systems, eco-trails, sewage and wastewater systems, reservoir rehabilitation, and restoration of degraded land. It also describes the safeguards framework to be applied, including an Environmental and Social Management Plan, Gender Action Plan, and project-level Grievance Redress Mechanism. Table 16 (pp. 42–43) provides a brief description of possible risks and corresponding mitigation measures.

However, several elements require strengthening:

- The description of the interventions as “small-scale” may understate their combined scope. The project includes, inter alia, rehabilitation of approximately 57 hectares of reservoir area, 2.5 km of eco-trails, water gates and embankments, wastewater and sewerage systems, 12 eco-villages, tourism infrastructure, and ecosystem restoration across several environmentally and culturally sensitive locations. The screening does not adequately assess the potential direct, indirect, and cumulative impacts of these activities.
- The proposal does not clearly establish whether Indigenous Peoples are present in the target areas. The statement under Principle 7 referring to census and local registration information is insufficient, particularly as other sections refer to Indigenous and forest-dependent communities, language barriers, and traditional

knowledge. The proposal should document the screening methodology, identify affected Indigenous Peoples and rightsholders where present, and describe culturally appropriate consultation and differentiated measures, as applicable.

- Although the proposal states that no land acquisition or physical displacement is expected, activities involving reservoir rehabilitation, reforestation, eco-trails, conservation, and ecotourism could restrict customary or informal access to land, forests, water, NTFPs, agricultural areas, or livelihood opportunities. Implementation on public or communal land does not, by itself, exclude risks to customary users. These risks should be assessed through land-tenure, resource-use, and access mapping, with appropriate avoidance and mitigation measures.
- Pollution-prevention and public-health risks appear understated given the proposed wastewater and sewerage systems, waste segregation, composting and recycling, and reservoir sediment clearance. The assessment should address wastewater effluent, sludge and sediment management, surface-water and groundwater contamination, vector- and waterborne-disease risks, construction and tourism-related waste, and community safety around reservoirs, water gates, and earthworks.
- Table 16 does not assess all project interventions under the relevant ESP principles. For example, waste management under Component 1 and climate-smart agriculture under Component 2 are not adequately considered, including possible risks related to waste handling, agrochemical use, water abstraction, introduction of crops or species, soil degradation, and impacts on natural habitats.
- Climate-change risk is classified as low without sufficient analysis of whether the proposed infrastructure and nature-based solutions—including eco-trails, reservoirs, wastewater systems, eco-villages, and restoration measures—will remain effective under projected rainfall variability, extreme precipitation, drought, heat, and flooding. The assessment should also consider whether water-control infrastructure could transfer flood or water-access risks to other locations.

CAR18: Please revise the environmental and social risk screening to: (i) assess the direct, indirect, and cumulative risks associated with the full nature and combined scale of all proposed interventions; (ii) clarify whether Indigenous Peoples are present in the target areas, describe the methodology and evidence used for this determination, and identify culturally appropriate consultation and management measures, as applicable; (iii) assess potential physical or economic displacement and restrictions on customary or informal access to land, forests, water, natural resources, and livelihoods; (iv) strengthen the assessment of pollution-prevention and public-health risks associated with wastewater, sewage, solid waste, composting, sediment clearance, and water infrastructure; and (v) reassess the climate-change risk rating based on the resilience and potential maladaptation risks of the proposed investments under future climate scenarios. Please update Table 16 and the proposed mitigation measures accordingly and revalidate the project's overall risk classification.

The environmental and social risk assessment is not yet commensurate with the sensitivity of the proposed intervention areas and the nature and cumulative scale of the activities. The project targets the Angkor–Kulen heritage landscape, including activities in or potentially adjacent to the Angkor World Heritage property and protected zones, Phnom Kulen National Park, forest protection communities and ecologically sensitive watersheds. However, the assessment relies on general assurances that critical habitats and cultural heritage will be avoided without providing the site-specific spatial, ecological, archaeological, hydrological and land-use evidence necessary to substantiate these conclusions or the overall Category B classification.

CAR19: Please revise the assessment to: (i) map all known and potential intervention sites against World Heritage property and buffer-zone boundaries, nationally protected heritage zones, Phnom Kulen National Park, archaeological and sacred sites, protected/critical natural habitats, relevant Tonle Sap Biosphere Reserve zones, customary-use areas and settlements; (ii) assess direct, indirect and cumulative impacts on biodiversity, ecosystem connectivity, hydrology, Angkor's Outstanding Universal Value and associated cultural landscape; (iii) clarify requirements for formal APSARA and other competent heritage and protected-area clearances and undertake a heritage impact assessment consistent with UNESCO guidance where relevant, including a chance-

finds procedure; (iv) strengthen the assessments under Indigenous Peoples and involuntary resettlement/access restrictions, including identification of rightsholders, customary land and resource use and culturally appropriate consultation; and (v) provide a safeguards framework for all community-selected or not-yet-finalized activities, including exclusion criteria, screening and approval procedures, site-specific assessment and management requirements, institutional responsibilities, qualified expertise, budget and a requirement that no works commence before the necessary assessments and clearances have been completed. The risk table should then be revised to reflect the findings and to ensure internal consistency with the project activities and consultation record.

It not possible at this stage to state there are no risks for principles related to points above. At the very least further screening/ monitoring is needed during the next stage and during implementation where relevant.

Response: Cleared

Secretariat: CAR18 & CAR19: Cleared.

The revised proposal provides a strengthened and proportionate assessment of the project's cumulative footprint across reservoir rehabilitation, eco trails, wastewater systems, reforestation, and eco village development in the Angkor–Phnom Kulen landscape.

The new table 24 clearly sets out exclusion criteria, screening and approval steps, institutional roles, and a strict no works before clearance requirement.

The proposal includes a robust Indigenous Peoples screening methodology, replacing reliance on administrative registration with self identification based consultations and verification with APSARA and MoE, supported by recent evidence of Kuoy presence in the wider Kulen landscape.

Risks related to access restrictions, pollution and public health, climate resilience, and heritage protection have been reassessed, with updated ratings and detailed mitigation measures reflected in Table 25.

The commitment to site specific mapping, HIA, Indigenous Peoples screening, and annual ESP re-screening ensures that all physical works proceed only after required clearances. The comments therefore are fully addressed.

[10 August 2026].

Resource Availability

Is the requested project / programme funding within the size for LLA single country grants?

Response: Cleared

Secretariat: Yes.

A PFG of US\$ 120,000 is also requested.

Is the Implementing Entity Management Fee at or below 8.5% per cent of the total project/programme budget before the fee?

Response: Cleared

Secretariat: Yes IE fee is 8.5%

Are the Project/Programme Execution Costs at or below 9.5% per cent of the total project/programme budget (including the fee)?

Response: Cleared

Secretariat: Yes. The EE cost is below 9.5%

Eligibility of IE

Is the project/programme submitted through an eligible Implementing Entity that has been accredited by the Board?

Response: Cleared

Secretariat: Yes Accredited (Special extension per Decision B.46/9) upto Oct 30, 2027.



LOCALLY-LED ADAPTATION PROJECT/PROGRAMME PROPOSAL FOR SINGLE COUNTRY

PART I: PROJECT/PROGRAMME INFORMATION

Title of Project/Programme: Strengthening Community-Led Climate Adaptation and Resilient Livelihoods in the Angkor-Phnom Kulen Heritage Landscape, Cambodia
~~Enhancing Livelihood and Climate Adaptation through Nature-based Solutions in Heritage Protected Areas in Siem Reap Province, Cambodia~~

Country: Cambodia

Thematic Focal Area: Food Security and Ecosystem Based Adaptation

Type of Implementing Entity: Multilateral Implementing Entity

Implementing Entity: —United Nations Human Settlements Programme (UN-Habitat)

Executing Entities:
National level
Ministry of Environment (MoE)

Local level
Siem Reap Administration, Local Communities, and
NGOs partners

Amount of Financing Requested: 4,999,420 (in U.S Dollars Equivalent)

Project Formulation Grant Request (available to NIEs only): Yes ☒ No ☐

Amount of Requested financing for PFG: 120,000 (in U.S Dollars Equivalent)

Letter of Endorsement (LOE) signed: Yes ☒ No ☐

NOTE: LOEs should be signed by the Designated Authority (DA). The signatory DA must be on file with the Adaptation Fund. To find the DA currently on file check this page: <https://www.adaptation-fund.org/apply-funding/designated-authorities>

Stage of Submission:

☒ ☐ This concept has been submitted before

☐ ☒ This is the first submission ever of the concept proposal

In case of a resubmission, please indicate the last submission date: 6/23/2026 7/3/2026

A. Project/Programme Background and Context

1. National Context

Cambodia is a lower-middle-income country in Southeast Asia, is located between latitudes 10° and 15° North and longitudes 102° and 108° East. The country covers a land area of covering 181,035 km², extending approximately 580 km from east to west and 450 km from north to south. It shares² and sharing borders with Thailand to the west and north, Laos to the north, and Vietnam to the east and southeast. To the southwest, Cambodia. It has a 435 km coastline along the Gulf of Thailand, and an exclusive economic zone of approximately about 55,600 km².^{1,2} Administratively, CambodiaThe country is divided into 24 provinces and the capital city, Phnom Penh. The Cambodian Constitution defines subnational boundaries, dividing provinces into districts (*srok*), communes (*khum*), and villages (*phum*), and municipalities into sections (*khan*) and quarters (*sangkat*). The Royal Government of Cambodia has pursued decentralization since the late 1990s to improve local governance, anchored by the 2000 and 2001 Commune/Sangkat laws and the 2005 Strategic Framework for D&D Reforms. However, deep-seated capacity gaps persist at the subnational level. Local officials frequently (Capital city), which are further split into districts, communes, and villages. Since the late 1990s, decentralisation reforms have aimed to give more power to local governments, but many local officials still lack the technical expertiseskills needed to manage increased autonomy and resource access, creating risks of these new responsibilities. This often leads to inefficient resource utilizationuse of resources and weak policy enforcement.³

The country's topography is characterized by extensive of policies.⁴ Topography comprises central lowland plains, surrounded by upland and mountainous regions, including the ringed by uplands (Cardamom Mountains in the southwest, the Dangrek Range to the north, and the Annamite Chain along the eastern frontier.⁵ National⁶); national hydrology is dominated by the Mekong River and Tonle Sap Lake system, which are critical for agriculture, fisheries, and water supply.⁷

As of January 2025,

Cambodia's population is estimated at about 17.8 million, with an annual growth rate as of January 2025, growing at 1.19% per cent. Approximately year. Around 75 per cent% of the population resides people live in rural areas, where access to basic climate-resilient infrastructure and diversified livelihoods remains comparatively limited. The average household consists of has 4.6 persons. In 2020, with a people, and the population density of is 93 persons per km², Cambodia is less densely populated than Viet Nam (313/km²) and Thailand (137/km²), but more densely populated than Lao PDR (32/km²).⁸⁻⁹ Cambodia falls within the medium human development category, with a people per km² (2020), which is higher than in Laos but lower than in Thailand and Vietnam.^{10,11} The country's Human Development Index (HDI) value of is 0.600 in (2022), placing it in the medium category at 148th out of 193 countries. Gender disparities remain notable, as reflected in a The Gender Inequality Index (GII) of is 0.461, indicating persistent gaps in income, education, and political participation, particularly among rural women.^{12,13} The average annual HDI growth rate slowed from 2.42 per cent (2000–2010) to 0.85 per cent (2010–2020), suggesting emerging structural development constraints. The national Cambodia's economy remains relatively narrow is still limited and climate-sensitive. Agriculture continues to play a central role, employing approximately to climate: about 39 per cent% of the labour force and contributing workforce is in agriculture, which made up 22.85 per cent to % of GDP in 2021.¹⁴ Tourism, which was severely affected by recovered after COVID-19, rebounded strongly in 2023 with 5.5 million international visitors and generated over in 2023, bringing in about USD 3 billion, equivalent to roughly (12.1 per cent% of GDP).¹⁵ Construction and garment manufacturing are also remain key contributors to economic growth, but are indirectly exposed to climate risksat risk from climate impacts through supply chains, labourworker productivity, and vulnerable infrastructure vulnerability.

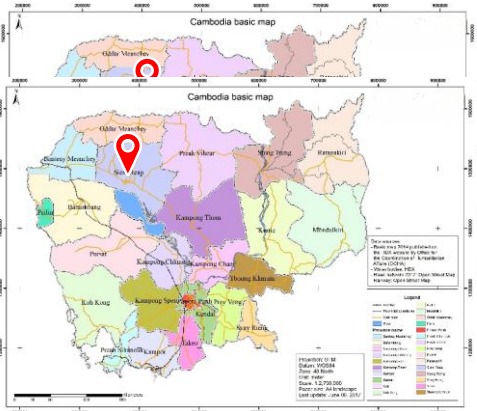


Figure 1.1 Map of Cambodia showing the Project Area

¹ Ministry of Environment & United Nations Environment Programme (2009). *Cambodia Environment Outlook*. Kingdom of Cambodia

² CIA World Factbook. (2024). Cambodia – Geography.

³ Vanny, M., Adnan, M. F., Sok, V., Choeun, K., & Neau, S. (2024). Local Implementation of Decentralization Policies in Cambodia. *Innovative: Journal Of Social Science Research*, 4(4), 5642-5655

⁴ Vanny, M., Adnan, M. F., Sok, V., Choeun, K., & Neau, S. (2024). Local Implementation of Decentralisation Policies in Cambodia. *Innovative: Journal of Social Science Research*, 4(4), 5642-5655

⁵ Ministry of Environment (2022). *Third National Communication to the United Nations Framework Convention on Climate Change*. Kingdom of Cambodia.

⁶ Ministry of Environment (2022). *Third National Communication to the United Nations Framework Convention on Climate Change*. Kingdom of Cambodia.

⁷ Ministry of Environment (2002). *Initial National Communication under the United Nations Framework Convention on Climate Change*. Kingdom of Cambodia.

⁸ <https://data.worldbank.org/indicator/EN.POP.DNST?locations=KH>

⁹ Ministry of Planning (2019). *Migration in Cambodia: Report of the Cambodian Rural Urban Migration Project (CRUMP)*. Kingdom of Cambodia.

¹⁰ <https://data.worldbank.org/indicator/EN.POP.DNST?locations=KH>

¹¹ Ministry of Planning (2019). *Migration in Cambodia: Report of the Cambodian Rural Urban Migration Project (CRUMP)*. Kingdom of Cambodia.

¹² 2021-22, p 293

¹³ Ministry of Planning (2019). *Migration in Cambodia: Report of the Cambodian Rural Urban Migration Project (CRUMP)*. Kingdom of Cambodia.

¹⁴ World Bank Climate Portal. (2023). *Climate Data for Cambodia*.

¹⁵ Ministry of Tourism. (2023). *Tourism Statistics Report*.

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Cambodia is recognized as one of the most climate-vulnerable countries in Southeast Asia, frequently affected by heatwaves, floods, and droughts.¹⁶ According to, ¹⁷ It ranked 14th out of 181 countries on the Global Climate Risk Index (CRI), Cambodia ranked 14th among 181 countries in terms of for cumulative climate risk from 2000 to 2019, ¹⁸ In and 84th in 2019, it ranked 84th, with considerable alone. The country has suffered significant losses relative compared to its GDP (86th) and purchasing power parity (97th).¹⁹ Under all high-emissions scenario (RCP8.5), national emission scenarios continue, temperatures could rise by up to 3.7°C by the 2090s, increasing the frequency and intensity of extreme climate events. Projections under SSP3-7.0 scenario indicate that the national, Under another scenario, the number of extremely hot days (with maximum temperatures above over 35°C) could increase from an average of 52.82 days per year during the 1995–2014 baseline to 60.17 days about 53 per year (ranging from 39.43 to 87.01) during 2020–2039, and further increase to 82.87 days (ranging from 46.73 to 124.53) by the middle of the 1995–2014) to nearly 83 per year by mid-century.²⁰ Rural communities, especially smallholder farmers, women, and ethnic minorities, face heightened exposure due to reliance on climate-sensitive livelihoods and limited adaptive capacity. Smallholder farmers who cultivate plots typically are most at risk. More than 80% of Cambodia's farmland is used for rice, but only 14% is irrigated.²¹ Most plots are under two hectares and depend almost entirely on rain-fed rice production are particularly exposed, as over 80 per cent of Cambodia's harvested area is under rice and only 14 per cent is irrigated.²² Droughts and floods directly often destroy crops and productive assets, creating a state of 'perpetual vulnerability' for leaving floodplain communities occupying floodplains. Women face compounded climate risks where 64 per cent of women vulnerable. These problems are worse for women; 64% who rely on primary forests for income reported accelerating report faster forest degradation loss, and for the wider population, as 77 per cent% of Cambodians reported worsening mental health due to say slow-onset climate hazards are harming their mental health, with women affected more likely than men to report stress and anxiety.²³

These vulnerabilities challenges directly threaten progress toward key Sustainable Development Goals (on SDGs), including SDG 1 (No Poverty), SDG 2 (Zero Hunger), SDG 5 (Gender Equality), SDG, 2, 5, 6 (Clean Water and Sanitation), SDG, 13 (Climate Action), and SDG 15 (Life on Land).

Recurring droughts, erratic rainfall, and biodiversity loss continue to affect food security, water availability, gender equity, and ecosystem stability. Given Cambodia's high climate exposure and constrained adaptive capacity, climate change presents a significant risk to long-term development gains. Targeted adaptation investments are therefore essential to safeguard livelihoods and strengthen national resilience.

2. Observed and Projected Climate Trends

Climate projections consistently indicate increasing that heat stress and evolving flood and drought patterns across Cambodia, floods, and droughts are increasing nationwide. Without adequate adaptation and mitigation measures intervention, climate change could reduce national Cambodia's GDP by approximately 2.5 per cent% by 2030 and close to nearly 10 per cent% by 2050.²⁴ Between 1991 and 2014, extreme hazards, primarily events such as floods and storms, resulted in caused over 1,500 fatalities and financial losses exceeding deaths and US\$235 million.^{25,26,27,28} in damages. The severe drought in 2015–2016 drought affected 18 of 2524 provinces, impacting over and Phnom Penh (Capital city) and 2.5 million people. Droughts linked to In 2019, the 2019 El Niño event caused drought resulted in US\$100 million in rice production losses, with studies indicating that two-thirds of these losses which could have been mitigated through avoided with timely investments investment in climate-resilient infrastructure and improved water management. The In 2023, a heatwave saw raised temperatures exceed above 42°C, further illustrating. These challenges threaten the increasing frequency and intensity of extreme heat events.

There is a growing risk that severe weather events will continue to impact Cambodia, which will affect the achievement of its national development priority, i.e., to build institutional capacity, improve socio-economic infrastructure, and create a favourable environment to attract both domestic and foreign investments, to ensure a high rate of economic growth and poverty reduction, as outlined in its National Strategic Development Plan 2019—2023.²⁹ These trends highlight the urgency of strengthening local adaptive capacity and climate-resilient infrastructure. Without substantial investments in adaptation and resilience, climate change is expected to hinder economic growth and exacerbate poverty. Studies estimate that nearly two-thirds of climate-induced losses could have been avoided through timely investment in adaptation and climate-resilient infrastructure.

¹⁶ Yusuf, A., & Francisco, H. (2009). Mapping Analysis: Climate Change Vulnerability Mapping for Southeast Asia. EEPSEA: 2009. http://www.eepsea.org/pub/tr/12324196651Mapping_Report.pdf

¹⁷ Yusuf, A. & Francisco, H. (2009). Mapping Analysis: Climate Change Vulnerability Mapping for Southeast Asia. EEPSEA: 2009. http://www.eepsea.org/pub/tr/12324196651Mapping_Report.pdf

¹⁸ Germanwatch (2016). Global Climate Risk Index 2016: Who Suffers Most from Extreme Weather Events? Weather-Related Loss Events in 2016. <https://germanwatch.org/sites/germanwatch.org/files/publication/13503.pdf>

¹⁹ Germanwatch (2021). Global Climate Risk Index 2021: Who Suffers Most from Extreme Weather Events? Weather-Related Loss Events in 2019 and 2000-2019. https://germanwatch.org/sites/default/files/Global%20Climate%20Risk%20Index%202021_1.pdf

²⁰ World Bank (2024). Climate Risk Country Profile: Cambodia

²¹ Community Based Climate Change Adaptation through Agriculture: Experiences from Cambodia (2018): https://ncsd.moe.gov.kh/sites/default/files/2019-06/Community%20Based%20CC%20Adaptation_Agriculture_English.pdf

²² Community Based Climate Change Adaptation through Agriculture: Experiences from Cambodia (2018): https://ncsd.moe.gov.kh/sites/default/files/2019-06/Community%20Based%20CC%20Adaptation_Agriculture_English.pdf

²³ GENDER AND ENVIRONMENT SURVEY 2024 Report: https://www.wocan.org/wp-content/uploads/2025/10/cambodia_gender_and_environment_survey_en.pdf

²⁴ Department of Climate Change (2018). *Modeling Modelling of Climate Change Impacts on Growth*. Ministry of Environment, Kingdom of Cambodia. <http://www.camclimate.org.kh/en/policies/ncsd-news/445-445.html>

²⁵ Global Climate Risk Index (2016). <https://germanwatch.org/fr/download/13503.pdf>

²⁶ UNISDR (2017). Global Risk Assessment 2017. <http://www.preventionweb.net/countries/khm/data/>

²⁷ International Disaster Database (2017). EM-DAT 7

²⁸ Index for Risk Management (INFORM) Country Risk profile for Cambodia, 2017. <http://www.inform-index.org/Countries/Country-profiles/iso3/KHM>

²⁹ Ministry of Planning (2019). *National Strategic Development Plan 2019—2023*. Ministry of Planning, Kingdom of Cambodia.



TEMPERATURE (°C)



Figure 2 Observed climatology of mean-temperature (1991 – 2020 Cambodia)

experience high temperatures. Long-term records data show a clear warming trend. Over the last decades, the mean steady temperature in Cambodia has increased significantly, a trend increase, projected to continue, with monthly average temperatures rising by at 0.013–0.036°C/0.036°C per year through 2099, with higher predictions for locations at low latitudes especially in the south.³¹ The number of hot days has increased over the last century risen by as many as up to 46 days per year.³² Under over the SSP3-7.0 scenario past century. In Siem Reap Province is projected to experience around 139.91 high index days, days above 35°C may rise from about 140 per year in (2020–2039, (maximum temperature >35 °C), rising) to nearly 196.94 days about 197 per year in (2040–2059. Similarly, hot).³³ Hot nights (minimum temperature >above 26°C) are also expected to increase from 140.25 nights per year in 2020–2039 to 193.97 nights per year in 2040–2059.³⁴

Land Surface Temperature (LST) data analysis of Marajh & He (2022) indicates that the protected forest areas, such as Phnom Kulen National Park maintain cooler microclimates compared to surrounding agricultural lowlands (Figure 2.2). However, recent trends suggest that these cooling effects are weakening as forest cover and canopy density decline – driven primarily by deforestation, encroachment, and unsustainable extraction, and compounded by rising temperatures and become more frequent drought – underseering the importance of. These trends inform project activities, including ecosystem conservation for climate regulation. In January 1998, the coolest temperatures were concentrated within the park, while higher temperatures prevailed across the rural agricultural lowlands and around Siem Reap city. By January 2009, temperatures were generally milder across all areas, though the park remained relatively cooler. In January 2019, cooling effects within the park were less pronounced, with higher temperatures increasingly dominating the surrounding agricultural lowlands (Figure 2.2).³⁵ and forest restoration (Outputs 2.2–2.3) and community-based early warning for extreme heat (Outputs 2.7/1.2).

b. Rainfall

Rainfall predictions are less certain than temperature forecasts, and rainfall varies significantly across Cambodia. Global models indicate annual rainfall will increase by 2030. Typhoons and tropical depressions from Vietnam frequently cause heavy rain and flooding. The UNDP reports wet-season rainfall could intensify by up to 14%. In September 2022, heavy rain flooded 14 provinces,

a. Temperature

Cambodia's tropical climate is characterised by consistently high temperatures and features two distinct main seasons: (a) a monsoon-driven rainy season, from May to October, characterised by south-westerly winds that usher in clouds and moisture, accounting for delivers 80 to 90 per cent of the country's annual precipitation, and (b) a dry season, from November to April, generally cooler, with an average minimum temperature lows of 17°C in January. Average temperatures are relatively uniform across the country. Cambodia maintains a hot tropical climate with a mean annual temperature of 25°C. Annual temperatures range from 25°C to 27°C, typical with daily ranges between highs of 30–35°C and 35°C, and extreme peaks occasionally reaching up to 41°C.³⁰ Figure 2.1 illustrates the observed average temperature distribution across Cambodia, confirming the high baseline temperatures in Siem Reap and surrounding areas.

already



TEMPERATURE (°C)



Figure 2.1 Observed climatology of mean-temperature (1991–2020 Cambodia)

³⁰ Cambodia National Climate Report Part 1 (2026, January)

³¹ Ibid.

³² Ibid.

³³ World Bank (2024). Climate risk country profile: Cambodia

³⁴ World Bank (2024). Climate risk country profile: Cambodia

³⁵ Marajh, L., & He, Y. (2022). Temperature variation and climate resilience action within a changing landscape. *Remote Sensing*, 14(3), 704

affecting about 85,000 households and displacing 5,000 families.³⁶ These events demonstrate that extreme rainfall can cause floods, landslides, and mudslides, resulting in significant property damage and social and economic losses. Siem Reap faces similar risks.

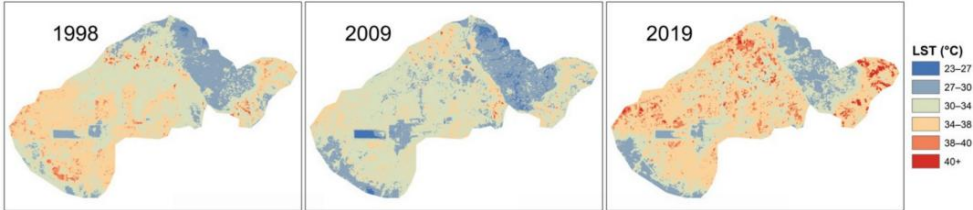


Figure 2.2.3 Results of land surface temperature (LST) variation from 1998 to 2019 in the Greater Angkor Region.

b. Rainfall

Precipitation projections show greater variability than temperature projections. Rainfall distribution in Cambodia is highly heterogeneous, driven by orographic effects. Global climate models project an increase in annual rainfall by 2030. Climate Risk and Vulnerability Assessment states that typhoons and tropical storms can bring widespread, intense rainfall and subsequent flooding. The frequency of tropical depressions, which cross Cambodia after typhoons land in Viet Nam, are expected to decrease but still each event is expected to bring heavy rain. UNDP’s study indicates that heavy rainfall intensity during the wet season between June and October may increase by up to 14.0 per cent. In September 2022, severe rainfall caused flooding in 14 provinces, affecting approximately 85,000 households, and requiring the evacuation of 5,000 families.³⁷ Extreme precipitation is a major driver of natural disasters such as floods, landslides, and mudslides, leading to property and human losses and negatively impacting industrial and agricultural productivity as well as overall socioeconomic development.³⁸ Siem Reap is no exception.

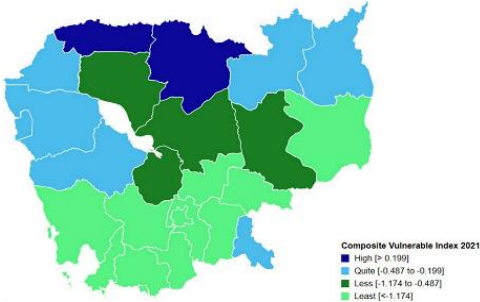


Figure 2.3 Composite Vulnerability Index

Currently, Siem Reap has experienced heavy monsoons and flash floods, particularly in 2020 and 2022. Over The 2022 flood alone affected more than 19,000 hectares of rice fields were inundated during the 2022 flood, causing widespread damage to livelihoods (ReliefWeb, 2022). Urban areas are increasingly exposed to, and cities are struggling with overloaded drainage overloads due to more erratic and intense rainfall pattern systems (MoE, 2022). The fish population in Tonlé Sap Lake is experiencing severe ecological stress, with fish populations declining by 87% from between 2003 to 2019 (Rockefeller Foundation, 2021).

However, Chim et al. (2021) projected that under RCP 2.6, RCP 4.5, and RCP 8.5 scenarios, project that Siem Reap’s average annual precipitation would decrease by 56%, 54%, and 61%, respectively while dry-season precipitation would decrease by 60%, 62%, and 66%.³⁹ Maintaining 40% under various climate scenarios. This highlights the need for forest maintenance and replanting forests were highlighted as practical solutions, as forests enhance precipitation retention, act as to sustain rainfall, store carbon sinks, and help reduce surface temperatures within the catchment.⁴⁰ It indicates that there is a need for forest catchments⁴¹, as well as short-term need for assistance with flood control measures and a long-term requirement for efficient water collection and storage. These trends inform Output 2.4 (water retention/buffering) and Output 2.1 (water-efficient irrigation). Flood-specific actions are detailed in Output 2.2, 2.6 and 2.7.

c. Drought

³⁶ World Bank (2023). Acting on Climate Change is Key for Cambodia to Achieve its Development Goals.
³⁷ World Bank (2023) Acting on Climate Change is Key for Cambodia to Achieve its Development Goals
³⁸ Pen, S., Rad, S., Ban, L., Brang, S., Nuth, P., & Liao, L. (2024). An Analysis of Extreme Rainfall Events in Cambodia. *Atmosphere*, 15(8), 1017.
³⁹ Chim, K., Tunnicliffe, J., Shamseldin, A., & Chan, K. (2021). Identifying future climate change and drought detection using CanESM2 in the upper Siem Reap River, Cambodia. *Dynamics of Atmospheres and Oceans*, 94, 1014182.
⁴⁰ Chim, K., Tunnicliffe, J., Shamseldin, A., & Chan, K. (2021). Identifying future climate change and drought detection using CanESM2 in the upper Siem Reap River, Cambodia. *Dynamics of Atmospheres and Oceans*, 94, 101182.
⁴¹ Ibid.
⁴² Ibid.

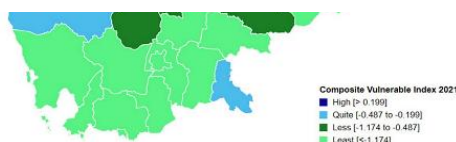
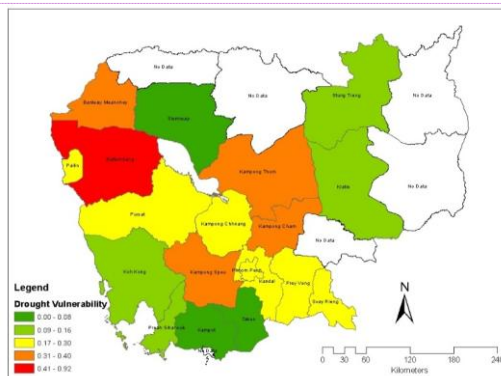
e-Drought

Drought remains one of the most pressing and recurrent climate hazards in Cambodia, with particularly severe impacts on rural agriculture-dependent communities.⁴³ Drought vulnerability is closely linked to poverty. Drought continues to be a significant challenge for Cambodia's rural farming communities.⁴⁴ Poverty, limited irrigation coverage, inadequate water storage infrastructure, low agricultural productivity, and high reliance on rain-fed farming systems.⁴⁵ These structural factors amplify the socio-economic consequences of rainfall deficits and prolonged dry periods.

The agricultural sector, especially agriculture increase their vulnerability.⁴⁶ Drought has caused significant losses in Cambodia's rice production, has historically experienced significant drought-related losses. Between 1996 and 2000, drought-related rice losses were estimated at approximately about 20 per cent% of the potential national production. A severe drought in rice harvest was lost. The 2004 drought affected over 300,000 hectares of paddy fields and reduced expected harvests by an estimated about 82 per cent. Longer-term assessments between 1994 and 2011 indicate that droughts damaged over more than 1,000 hectares of paddy rice in at least seven out of thirteen years, demonstrating the between 1994 and 2011, indicating a recurring and systemic nature of drought risk in Cambodia.⁴⁷ Institutional responses to drought have historically faced coordination and response time challenges, partly because drought is a slow-onset hazard that receives less immediate attention than floods or storms. This institutional lag problem.⁴⁸ Because droughts develop gradually,⁴⁹ institutions often struggle to respond quickly. This underscores the critical need to strengthen importance of local community capacity to manage water resources and respond independently in the early stages of a drought event.⁵⁰ water resource management. Community-led drought management, such as improved water storage, small-scale irrigation, drought-resilient crops, and ecosystem-based water regulation, has have proven particularly important in reducing vulnerability.

Figure 2 effective. Figures 4 (2019)⁵¹ and Figure 2.5 (1982–2002) indicates indicate that Siem Reap's vulnerability is driven primarily by recurrent risk from repeated flooding and changing rainfall variability, rather than severe drought. While the province shows lower standalone drought vulnerability. However, dry-season water stress shortages and increasingly erratic unpredictable rainfall continue to affect rain-fed farming.⁵² These trends inform Output 2.1 (climate-smart, water-efficient agriculture, reinforcing the need for water management and flood-resilient adaptation.⁵³), Output 2.2 (forest/watershed restoration), and Output 2.4 (water retention and sediment clearance).

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⁴³ Chhinh, N., & Millington, A. (2015). Drought monitoring for rice production in Cambodia. *Climate*, 3(4), 792–811.

⁴⁴ Chhinh, N., & Millington, A. (2015). Drought monitoring for rice production in Cambodia. *Climate*, 3(4), 792–811.

⁴⁵ Nguyen, H., et al. (2009). Adaptive drought risk reduction in Cambodia: Reality, perceptions, and strategies.

⁴⁶ Nguyen, H., et al. (2009). Adaptive drought risk reduction in Cambodia: Reality, perceptions, and strategies.

⁴⁷ Ibid

⁴⁸ Ibid

⁴⁹ Pereira, J. J., Pullin, J., Chhinh, N., Trong, T. D., & Satani, S. K. (2019). Appraising slow onset hazards for loss and damage: Case studies in Southeast Asia. *APN Science Bulletin*, 9(1), 45–51.

⁵⁰ Pereira, J. J., Pullin, J., Chhinh, N., Trong, T. D., & Satani, S. K. (2019). Appraising slow onset hazards for loss and damage: Case studies in Southeast Asia. *APN Science Bulletin*, 9(1), 45–51.

⁵¹ Usamah, M., Basnayake, S., Center, A. D. P., Dashora, L. K., & Clingeffer, K. Drought Baseline Study in Cambodia Drought Baseline Study in Cambodia.

⁵² CDRI (2013). Climate Change Adaptation and Livelihoods in Inclusive Growth: A Review of Climate Change Impacts and Adaptive Capacity in Cambodia.

⁵³ CDRI (2013). Climate Change Adaptation and Livelihoods in Inclusive Growth: A Review of Climate Change Impacts and Adaptive Capacity in Cambodia.

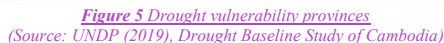
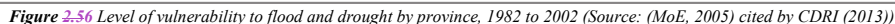


Figure 5 Drought vulnerability provinces
(Source: UNDP (2019), Drought Baseline Study of Cambodia)

through ecosystem restoration and reforestation (Outputs 2.2–2.3) and community-based early warning systems (Outputs 2.7).



3. Project Area

a. Siem Reap Province

Siem Reap Province, ~~located in northwestern Cambodia~~; is internationally known for the UNESCO-listed Angkor Archaeological Park, ~~covering approximately~~ (400 km² ~~and recognized for its~~⁵² ancient temple complex~~temples~~, forest landscapes, ~~and sophisticated~~ historical hydraulic systems (e.g., UNESCO, 2013). ~~The area ranges in elevation~~, ~~spanning elevations~~ from 6m at Tonle Sap Lake to 469m ~~in~~⁵³ Phnom Kulen ~~Mountain National Park and features a mixed landscape of forests, rice fields, shifting cultivation, and urban areas~~ (Figure 3-27).⁵⁴ ~~The Province has~~ ~~provinc~~⁵⁵ ~~population exceeding~~~~exceeds~~ one million (NIS, 2019), ~~the majority of whom reside in~~⁵⁶ ~~mostly rural areas and depend~~~~dependent~~ on agriculture⁵⁵, fisheries, or tourism-related informal livelihoods. ~~Of these~~, 100,000 residents live in 112 informal settlements ~~located~~ within or near the park boundaries. ~~In 2022~~, 71 per cent of residents in Siem Reap City were employed in services (e.g., tourism and vending), 27 per cent in agriculture, and the remainder in government or private-sector roles.⁵⁶

These communities lack access to, lacking secure housing, drainage, potable water, and social protection systems, which makes them⁵⁷ and highly vulnerable to climate induced hazards such as heatwaves, flash floods, and ecosystem degradation (Rasid, 2020). For example, the existing sewerage network meets only about half of Siem Reap's overall needs and is concentrated in high-

⁵⁴ Venkatappa, M., Sasaki, N., Anantsuksomsri, S., & Smith, B. (2020). Applications of the ~~google earth engine~~Google Earth Engine and phenology-based threshold classification method for mapping forest cover and carbon stock changes in Siem Reap province, Cambodia. *Remote Sensing*, 12(18), 3110.

⁵⁵ Seak, S., Khan, L., Spoom, V., Phat, C., Choeun, K., & Seak, S. (2023). Using the Socioeconomic Indicator Analysis to assess the Urban Vulnerability for Building Urban Resilience: A Case Study in Siem Reap City, Siem Reap Province. *Insight: Cambodia Journal of Basic and Applied Research*, 5(2), 34-47.

⁶⁶ Seak, S., Khan, L., Spoann, V., Phat, C., Choeun, K., & Seak, S. (2023). Using the Socioeconomic Indicator Analysis to assess the Urban Vulnerability for Building Urban Resilience: A Case Study in Siem Reap City, Siem Reap Province. *Insight: Cambodia Journal of Basic and Applied Research*, 5(2), 34-47.

⁵⁷ Rashid, T. (2020). Local community and policymaker perspectives on sustainable livelihoods, tourism, environment and waste management in Siem Reap/ Angkor, Cambodia. *International Journal of Asia-Pacific Studies*, 16(1).

density areas, leaving many peri-urban and informal communities underserved.⁵⁸ needs. Food insecurity and household debt also present concerns: recent assessments indicate that are acute: 32.3 per cent% of households experience severe food insecurity affecting at least one member, while, and 59.4% report household debt (JacobsoJacobson et al., 2022). Tourism entered on Angkor remains at the economic cornerstone of the provincial economy. In 2019, Angkor received 2.2 million Angkor visitors, generating US\$99 million in ticket revenue alone (Open Development Cambodia, 2023; MoT, 2024). Although tourism is prominent in 2019), yet 26% of Siem Reap's the population still lives in poverty (Cambodianess News, 2025). Rapid, and rapid tourism growth and urban expansion have also increased increasingly pressure on water resources, land, and ecosystems, creating trade-offs between development and environmental sustainability.⁵⁹

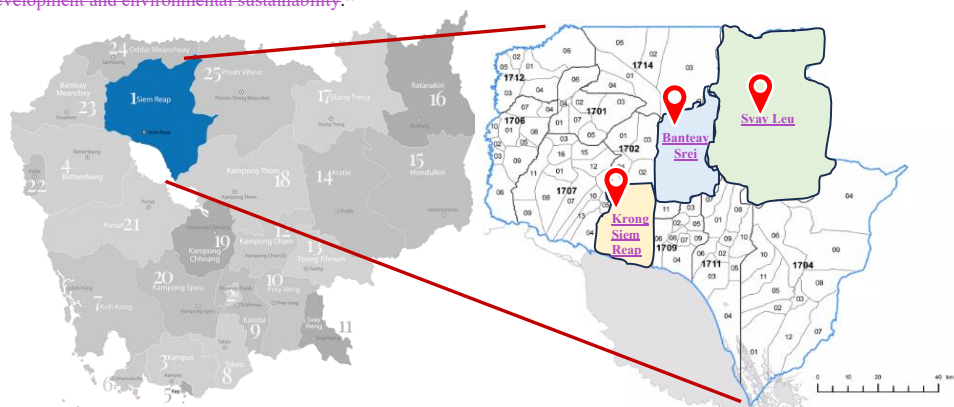


Figure 7 Map of Cambodia (left) and Siem Reap Province (Right)

Climate change impacts in Siem Reap are multidimensional, affecting cultural heritage, local economies, eco-system ecosystems, and social well-being. Heatwaves and droughts reduce rice yields, while intense rainfall events damaged damages roads, homes, and occasionally heritage structures (ADB, 2022). Informal settlements are particularly especially vulnerable due to because of limited climate-resilient housing, inadequate and drainage, and insufficient water storage. Women, children, older people, and persons with disabilities often face compounded impacts due to from mobility constraints, caregiving responsibilities, and unequal resource access to resources. Rashid (2020) also reported that found youth and lower-income households remain in villages engaged in-tied to fishing and subsistence farming, while as prolonged dry seasons and environmental degradation constrain opportunities to acquire skills and access stable to tourism-related employment.

Despite a progressive national framework for decentralisation, targeted framework, stakeholder consultations highlighted that found sub-national and local authorities have face a capacity gap. The current limited capacity that impedes the effective integration of integrating climate change adaptation into local plans and hinders the participatory, community-led enforcement of critical climate resilience strategies.

In this context, strengthening Strengthening climate resilience in Siem Reap therefore requires integrated approaches: nature-based solutions, climate-resilient infrastructure, and targeted capacity development that address infrastructure gaps, ecosystem health, and community adaptive capacity while safeguarding the Angkor cultural landscape. The proposed project interventions will combine nature-based solutions, climate-resilient infrastructure, and targeted capacity development. These efforts aim to reduce vulnerability, support sustainable livelihoods, and protect one of the world's most valued heritage landscapes while enhancing long-term climate resilience. Crucially, these These interventions are locally led: communities identify and prioritise actions, Community Development Councils Committees (CDCs) manage implementation and finance through Community Implementation Implementing Agreements, (CIAs), and the resulting benefits – diversified livelihoods, restored ecosystem services, and safer infrastructure – accrue directly to local stakeholders.

⁵⁸ Rashid, T. (2020). Local community and policy maker perspectives on sustainable livelihoods tourism, environment and waste management in Siem Reap/ Angkor, Cambodia. *International Journal of Asia-Pacific Studies*, 16(1).

⁵⁹ Rashid, T. (2020). Local community and policy maker perspectives on sustainable livelihoods tourism, environment, and waste management in Siem Reap, Angkor, Cambodia. *International Journal of Asia-Pacific Studies*, 16(1).

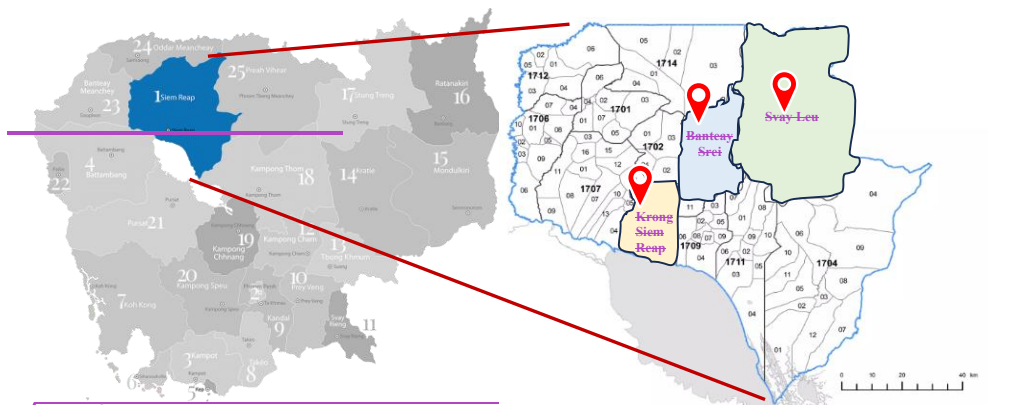


Figure 3.3 Map of Cambodia (left) and Siem Reap Province (Right)

b. Strategic Nodes: Krong Siem Reap, Svay Leu, and Banteay Srei Districts

The project will target three high-priority areas within Siem Reap Province: **Krong Siem Reap, Svay Leu and Banteay Srei**. These locations combine high ecological value with elevated climate vulnerability and socio-economic sensitivity. According to the most recent administrative data, these three districts have: **Krong Siem Reap, Svay Leu, and Banteay Srei**, with a combined population of 376,850 residents, comprising (189,577 females and 187,273 males).⁶⁰

i. Krong Siem Reap

Krong Siem Reap is the provincial city of Siem Reap Province and the principal urban, commercial, and tourism hub of northwestern Cambodia. It is globally recognized as the gateway to the Angkor Archaeological Park, one of the world's most significant cultural heritage landscapes. Administratively, the city comprises 12 sangkats (communes) and 99 villages. Its population has expanded steadily due to urbanization, tourism development, and inward migration from surrounding rural districts. As of 2022, Krong Siem Reap has 58,922 households and a total population of 276,258 people (137,294 males and 138,964 females). Approximately 13.86 per cent of households are female-headed, and 0.39 per cent of the total population are persons with disabilities, groups that may face additional constraints in coping with climate shocks. About 57,656 households (97.85 per cent of total households) have access to improved latrines, and 58,127 households (98.75 per cent of total households) use clean water for domestic purposes. However, only 42.80 per cent of households are covered by solid waste collection services. The limited coverage of waste services contributes to drainage blockage and urban flooding risks, particularly during heavy rainfall. Economically, the city is driven by tourism, services, small businesses, trade, construction, and the hospitality sector. While Krong Siem Reap is predominantly urban, 25.38 per cent of households depend on agriculture as a primary source of income. Geographically, the municipality includes both urban and peri-urban landscapes linked to the broader Kulen watershed system. This watershed plays a vital role in seasonal hydrology, groundwater recharge, and downstream agricultural productivity. Climate-induced extreme events, including intense rainfall and storms, are becoming more frequent and intense. Heavy rainfall and storms have increased flood exposure, strained drainage infrastructure, and intensified waste accumulation in waterways. Severe storms in 2022 illustrate these risks, with flooding affecting 289 households (1,145 people), storm-related damage impacting additional households, and approximately 7,600 meters of infrastructure damaged across three communes. These events highlight the growing mismatch between rapid urban expansion and climate-resilient infrastructure provision. Krong Siem Reap requires integrated urban adaptation that combines nature-based drainage solutions, improved waste management, a climate-smart agriculture pilot, and climate-resilient infrastructure. Strengthening green infrastructure and watershed management will also support the long-term conservation of the Angkor landscape while reducing flood and heat risks for vulnerable communities.

These pressures do not stop at administrative boundaries. Krong Siem Reap and the surrounding districts of Svay Leu and Banteay Srei form a single, interdependent urban-rural system linked by shared watersheds, ecosystem services, food and labour flows, and the tourism economy. Urban and tourism-driven demand in Krong Siem Reap for water, food, construction materials, and waste absorption places pressure on the natural resources, agricultural land, and forests of the surrounding rural districts; conversely, ecosystem degradation, water stress, and declining agricultural productivity in those rural areas feed back into the city through reduced water security, in-migration, and risks to the tourism economy on which the wider landscape depends. Climate change intensifies these interactions, as flooding, drought, and rainfall variability move across the landscape rather than affecting urban and rural areas in isolation. Recognising these urban-rural linkages, the project frames adaptation across the wider Siem Reap heritage landscape rather than treating communities as isolated units, ensuring that the benefits and costs of adaptation are distributed equitably across both urban and rural areas.

ii. Svay Leu District

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⁶⁰ Status Information Document on Economic and Social Affairs of three target city/ districts (2023)

Svay Leu District is a predominantly rural district located in the northeastern part of Siem Reap Province, Cambodia. It is characterized by low population density, dispersed settlements with livelihoods primarily dependent on subsistence agriculture, small-scale farming, and forest resource collection. Administratively, Svay Leu comprises five communes and 34 villages, with 11,136 households and a total population of 51,072 people (25,508 males and 25,564 females) as of 2022. Approximately 8.5 per cent of households are female-headed, and 0.85 per cent of the total population are persons with disabilities. Access to basic services remains limited. Only 7,608 households (68.3 per cent) have access to improved latrines, and 3,705 households (33.3 per cent) use clean water for domestic purposes. Solid waste collection coverage is extremely low at 1.21 per cent of households, reflecting significant gaps in environmental sanitation and public health infrastructure. The local economy is overwhelmingly agricultural-based, with 89.2 per cent of households relying on farming as their primary income source. Dependence on rainfall for crop production heightens sensitivity to droughts and rainfall variability. The collection of non-timber forest products (NTFPs) contributes to livelihoods but at a relatively small scale (0.1 per cent of households). Svay Leu also holds ecological importance due to its proximity to Kulen Mountain National Park. The district includes five recognized forest protection communities, such as Prey Thom Anlong Thom, Prey Phnom Mnas, Prey Phnom Kduoch, Prey Thom Popel, and Chop-Ta Sok. These communities play an active role in forest protection and biodiversity conservation. These community-based forest management systems contribute to ecosystem protection but remain closely tied to climate-sensitive agricultural livelihoods. Climate impacts are already visible. In 2022, severe storms and flooding affected 11 households (35 people), while storm-related damage impacted additional households. Prolonged drought conditions affected 73 households, and extreme weather events damaged approximately 17,650 meters of infrastructure and one bridge across two communes. Although the absolute numbers may appear modest relative to urban areas, the impacts are significant for dispersed rural populations with limited safety nets and infrastructure redundancy. Even small-scale losses can translate into prolonged livelihood disruption and debt accumulation.

iii. Banteay Srei District

Banteay Srei District is located in the northeastern part of Siem Reap Province and represents an important agro-ecological and cultural landscape within the broader Angkor Kulen region. The district comprises six communes and 36 villages, with 11,133 households and a total population of 49,520 people (24,471 males and 25,049 females) as of 2023. Social vulnerability is a relevant consideration in the district. Approximately 14.8 per cent of households are female-headed, and 0.76 per cent of the total population are persons with disabilities, reflecting the presence of vulnerable groups. An estimated 10,134 households (91.03 per cent) have access to improved sanitation facilities, and 10,794 households (96.95 per cent) use clean water for domestic purposes. However, solid waste collection services cover only 22.73 per cent of households, indicating persistent gaps in environmental sanitation and waste management. Geographically, Banteay Srei benefits from its proximity to the Kulen mountain range, which supports forest cover, protected landscapes, and critical ecosystem services such as watershed protection, groundwater recharge, and local climate regulation. Seasonal streams and irrigation canals connected to the Kulen watershed are essential for dry-season agriculture, making the district highly dependent on upstream ecosystem integrity. The district's economy remains predominantly agricultural, with 76.49 per cent of households relying on farming as their primary source of income. The collection of NTFPs provides supplementary income for a smaller share of households (1.02 per cent), particularly among communities near forests and protected areas. Climate change impacts are increasingly evident. Recent hazard records indicate severe storms affecting three households (nine people) and flooding impacting 30 households (70 people). Prolonged drought conditions affected 387 households, while extreme weather events damaged 2,365 meters of infrastructure and two bridges across three communes. While these figures may appear modest in absolute terms, they represent significant impacts for rural households with limited buffers and high dependence on climate-sensitive livelihoods.

Table 1 Demographic information of three target city/districts

Districts	# of HH	Population			Age		
		Total	Male	Female	0-17	18-60	Above 60
Krong Siem Reap	58,922	276,258	137,294	138,964	92,543	153,224	30,491
Svay Leu	11,136	51,072	25,508	25,564	22,519	25,193	3,360
Banteay Srei	11,133	49,520	24,471	25,049	19,155	26,552	3,813
Total	81,191	376,850	187,273	189,577	134,217	204,969	37,664

Source: Status Socio-Economic and Profile of three target city/ districts (2022* & 2023**)

i. Krong Siem Reap

Krong Siem Reap, the provincial capital and main gateway to Angkor Archaeological Park, comprises 12 sangkats and 99 villages. In 2022, it had 58,922 households and a population of 276,258. Most households have improved latrines (97.85%) and access to clean water (98.75%), but only 42.80% benefit from solid waste collection, resulting in blocked drains and increased urban flooding. Although primarily urban, the city still depends on agriculture, and it is linked to the Kulen watershed. In 2022, severe storms flooded 289 households and damaged approximately 7,600 meters of infrastructure across three communes. Addressing these challenges requires a combination of nature-based drainage, improved waste management, and a climate-smart agriculture pilot. Krong Siem Reap is closely connected to Svay Leu and Banteay Srei, forming an interdependent urban-rural system that shares watersheds, ecosystem services, food and labour flows, and tourism. The city's resource demands and waste disposal place pressure on surrounding rural districts, while damage to rural ecosystems reduces water security, increases migration, and heightens tourism risks. The project's adaptation plan addresses these issues by working across the entire heritage landscape to ensure benefits and costs are distributed equitably.

ii. Svay Leu District

Svay Leu District is a predominantly rural, low-density area in northeastern Siem Reap, comprising five communes and 34 villages. In 2022, it had 11,136 households and a population of 51,072. Access to basic services remains limited: 68.3% of households have

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improved latrines, 33.3% use clean water, and only 1.21% are covered by solid waste collection. The majority of households (89.2%) rely on agriculture. The district is located near Kulen Mountain National Park and includes five forest protection communities. In 2022, storms and flooding affected 11 households, drought impacted 73, and extreme weather damaged approximately 17,650 meters of infrastructure. These impacts are significant for a dispersed rural population with limited safety nets.

iii. Banteay Srei District

Banteay Srei District, an agro-ecological and heritage area in the Angkor–Kulen region, consists of six communes and 36 villages. In 2023, it had 11,133 households and a population of 49,520. Most households have improved sanitation (91.03%) and access to clean water (96.95%), but only 22.73% have access to solid waste collection. The district’s proximity to the Kulen mountain range supports forest cover and ecosystem services. Seasonal streams from the Kulen watershed enable dry-season farming, the primary source of income for 76.49% of households. Recent data indicate that storms, flooding, and drought have affected up to 387 households, while extreme weather has damaged 2,365 meters of infrastructure. Rural households have limited resources to recover from such losses.

Overview of existing/target five forest protection communities

In Svay Leu District, five forest protection communities operate within Kulen landscape, playing an important role in local forest governance and biodiversity conservation. As summarized in Table 2, each community comprises between 96 and 220 households engaged in forest stewardship and patrol activities. The areas under community protection range from 82 to 306 hectares, contributing to the conservation of critical watershed and forest ecosystems. These forest protection communities were first established in 2003 following the issuance of Prakas No. 165 by the Ministry of Environment, which provided the legal basis for community participation in protected area management. Their governance structures were further strengthened in 2017 through the formal establishment of Forest Protection Community Committees under the communal Deika issued that year. Each committee comprises nine or eleven members, including female representatives. Agriculture remains the principal livelihood source across all five communities. Households typically practice smallholder farming, cultivating rice, taro, maize, beans, bananas, and cashew. Livestock rearing—mainly chickens and pigs—provides supplementary income and food security. Svay Leu has five forest protection communities (Table 2), each comprising 73 to 220 households managing 82 to 306 hectares of protected watershed. All were established in 2003 under MoE Prakas No. 165 and strengthened in 2017 through Forest Protection Community Committees establishment. Most residents rely on small-scale farming, supplemented by some income from livestock.

Table 2 Overview of existing/target five forest protection communities in the Svay Leu district

	Target districts				
	Prey Thom Popel	Chop Ta Sok	Prey Thom Anlong Thom	Prey Phnom Mnas	Prey Phnom Kduoch
Location	Porpel Village, Khnang Phnum Commune	Khla Khmum Village, Khnang Phnum Commune	Anlog Thum Village, Khnang Phnum Commune	Ta Penh Village, Khnang Phnum Commune	Sangkae Lak Village, Khnang Phnum Commune
Number of households	96	73	220	134	98
Protected Area (hectares)	188	306	270	82	90
Established Year of Community	Prakas No. 165 issued by the Ministry of Environment on 13 May 2003				
Established Year of Committee	Communal Deika issued on 12 May 2017				
Community Committee	9 members, of whom two are women.	9 members, of whom two are women	11 members, of whom two are women	11 members, of whom five are women	11 members, of whom four are women
Community Plan	Community Plan 2021-2025	Community Plan 2016-2020	Community Plan 2021-2025	Community Plan 2021-2025	Community Plan 2021-2025
Livelihood Activities	Farming (rice, taro, corn, beans, bananas, and cashew nuts), livestock (chicken and pigs), and forest products.				

4. Socioeconomic Context and Climate Vulnerability

Cambodia’s GDP was estimated at (US\$29.8 billion in 2021). However, climate change presents a significant risk to long-term economic performance. Current projections indicate that climate impacts could reduce national GDP by approximately by 2.5 per cent by 2030) and close to 10 per cent by 2050 if adaptation measures are not scaled up.⁶⁴ Although economic growth has been steady, per capita income remains low at (US\$1,730, which is among the region’s lowest in the region. Economic activity remains) are concentrated in limited number of climate-sensitive sectors, particularly such as textiles, tourism, and agriculture. Agriculture continues to be the primary livelihood source for the rural population and is the sector most directly exposed to climate variability.⁶² The service sector, largely composed of informal trade, small enterprises and catering services, often provides limited job security and weak protection against climate-related disruptions. Cambodia has achieved notable , which increases the risk of GDP losses

⁶⁴ Department of Climate Change (2018). *Modeling of Climate Change Impacts on Growth*. Ministry of Environment, Kingdom of Cambodia. <http://www.camclimate.org.kh/en/policies/ncsd-news/445-446.html>

⁶² Embassy of the Republic of Belarus in the Socialist Republic of Vietnam (2022). *Cambodian economy*. <https://vietnam.mfa.gov.by/en/exportby/camebz/camecol>

from climate change if adaptation is not scaled up.⁶³ (Section 2). Although poverty reduction over the past two decades, with poverty rate declining from 60 per cent in 2000 to 13.5 per cent in 2015. Nevertheless, a large share of the population⁶⁴ remains only marginally just above the poverty line and is highly vulnerable to climate and economic shocks. Many rural households lack sufficient financial reserves, secure land tenure, or diversified income sources to buffer climate impacts. The national poverty line was, Under the 2022 revised in 2022 to 10,951 riels per person per day threshold (US\$2.70), under which (day), 18 per cent of the population is now % are classified as poor. Rural, with rural poverty remains disproportionately high at (22.8 per cent, compared to 12.6 per cent in other %)⁶⁵ substantially higher than in urban areas (12.6%) and just 4.2 per cent in Phnom Penh. While official (4.2%). Official unemployment rates remains low (around (~2 per cent), these figures mask %), but this figure masks high levels of underemployment, and informality, and subsistence livelihoods in rural areas.⁶⁶ Such conditions translate into lower household. Vulnerable households, lacking savings, limited access to insurance or credit, and heavy dependence on climate-sensitive income sources such as rain-fed agriculture and daily wage labor. As climate extremes become more frequent, vulnerable households are often forced to secure land tenure, or diversified income sources, are increasingly compelled to adopt negative coping strategies, including selling productive assets, reducing asset sales, reduced education expenditures, or engaging in spending, and distress migration. These responses can erode long-term resilience and perpetuate cycles of vulnerability.

In Siem Reap Province, where the proposed project is located, the Province's Human Development Index (HDI) is relatively low at (0.499), reflecting development challenges in income, education, and health.⁶⁷ As of (2022, 71% of Siem Reap City's population was engaged in service sector such as tourism and vending, while 27% relied on agriculture, with the remainder employed in government or private sector roles.^{68,69} in services/tourism, 27% in agriculture). The International Labour Organization (ILO) warns that increasing heat stress and climate-driven disruption could may render large extensive areas of Cambodia less productive or even uninhabitable, prompting climate-induced potentially increasing migration and accelerating the expansion of insecure and informal employment.⁷⁰ The Angkor Archaeological Park and surrounding protected forest, including Phnom Kulen National Park, provide important economic and ecological assets. These landscape support contribute to tourism, biodiversity conservation, and ecosystem services such as water regulation and micro-climate moderation. Sustainable ecotourism offers potential, offering opportunities for diversified livelihoods through forest trails, recreation services, and eco-village initiatives. Similarly agricultural producers in peri-urban and rural areas can benefit from supplying local market linked to tourism, particularly when supported by ecotourism and climate-smart agriculture and, value-addition practices added agriculture linked to tourism markets. However, the enabling conditions for such diversification remain are constrained. Basic infrastructure including by inadequate drainage and waste management remains insufficient in many areas. Climate infrastructure, climate risks, such as heatwaves, storms, and flooding, threaten access, to visitor access and safety, and income generation. Degradation of natural assets (e.g. the degradation of forests, trails, and water reservoirs) reduce, all of which undermine both economic opportunity and ecosystem integrity, weakening the sustainability of tourism-based livelihoods.

Efforts to strengthen sustainable local resilience through community, Community-led nature-based adaptation are ongoing but face initiatives continue to encounter systemic barriers. Weak, including weak institutional capacity, partially damaged or inadequate infrastructure, limited financial resources, and weak coordination in natural resource governance continue to hinder meaningful progress. Without strategic investments in nature-based solutions, climate-resilient and inclusive infrastructure, diversified livelihood opportunities, and strengthened governance, the combined pressures of socio-economic vulnerability and environmental stress investment, these barriers are likely to deepen exacerbate poverty and accelerate ecosystem degradation in these already fragile communities.

5. Gender and Social Inclusion Context

Cambodia ranked 11th out of 19 countries in East Asia and the Pacific and 98th globally out of 156 countries in the 2022 Global Gender Gap Index published by the World Economic Forum, with an overall (score of 0.690.⁷¹ Women in Cambodia have a higher life expectancy than men, at 72.3 years versus 66.8 years, reflecting improvements in national health outcome (SDG 3). Maternal and child health⁷². Health indicators have improved markedly over the past two decades. Neonatal mortality declined from 37 to 8 per 1,000 live births, and under-five mortality dropped from 124 to 16 per 1,000 live births, enabling Cambodia to meet its SDG targets eight years ahead of schedule.⁷³ Maternal : women's life expectancy now exceeds men's (72.3 vs 66.8 years)⁷⁴; maternal mortality fell substantially from 437 (2000) to 160 per 100,000 live births in 2000 to 170 in 2014, and further to 160 in (2017.^{75,76}

⁶³ Department of Climate Change (2018). *Modelling of Climate Change Impacts on Growth*. Ministry of Environment, Kingdom of Cambodia. <http://www.camclimate.org.kh/en/policies/ncsd-news/445-445.html>

⁶⁴ Embassy of the Republic of Belarus in the Socialist Republic of Vietnam (2022). *Cambodian economy*. <https://vietnam.mfa.gov.by/en/exportby/camobz/cameco/>

⁶⁵ Business (2022). *Joblessness in Cambodia is expected to stay around 2% in 2023*. <https://www.khmertimeskh.com/50116994/joblessness-in-cambodia-to-stay-around-2-in-2023/>

⁶⁶ Business (2022). *Joblessness in Cambodia is to stay around 2% in 2023*. <https://www.khmertimeskh.com/50116994/joblessness-in-cambodia-to-stay-around-2-in-2023/>

⁶⁷ <https://www.kampongspu.gov.kh/%E1%9E%80%E1%9F%92%E1%9E%9A%E1%9E%94%E1%9E%81%E1%9F%90%E1%9E%8E%E1%9F%92%E1%9E%8C%E1%9E%A2%E1%9E%97%E1%9E%87%E1%9E%9C%E1%9E%8C%E1%9F%92%E1%9E%8D%E1%9E%93%E1%9F%8D%E1%9E%81%E1%9F%81%E1%9E%8F%E1%9F%92>

⁶⁸ Seak, S., Khan, L., Spoann, V., Phat, C., Choenn, K., & Seak, S. (2023). *Using the Socioeconomic Indicator Analysis to assess the Urban Vulnerability for Building Urban Resilience: A Case Study in Siem Reap City, Siem Reap Province. Insight: Cambodia Journal of Basic and Applied Research*, 5(2), 34-47.

⁶⁹ Seak, S., Khan, L., Spoann, V., Phat, C., Choenn, K., & Seak, S. (2023). *Using the Socioeconomic Indicator Analysis to assess the Urban Vulnerability for Building Urban Resilience: A Case Study in Siem Reap City, Siem Reap Province. Insight: Cambodia Journal of Basic and Applied Research*, 5(2), 34-47.

⁷⁰ International Labour Organisation (2018). *The employment impact of climate change adaptation*. Input Document for the G20 Climate, Sustainability Working Group. ILO, Geneva.

⁷¹ World Economic Forum (2022). *Global Gender Gap Report 2022*

⁷² World Economic Forum (2022). *Global Gender Gap Report 2022*

⁷³ <https://www.who.int/cambodia/news/detail/07-04-2023-cambodia-celebrates-significant-health-achievements-on-the-75th-anniversary-of-who>

⁷⁴ <https://www.who.int/cambodia/news/detail/07-04-2023-cambodia-celebrates-significant-health-achievements-on-the-75th-anniversary-of-who>

⁷⁵ <https://genderdata.worldbank.org/countries/cambodia/#~:text=In%20Cambodia%2C%20the%20labor%20force,labor%20force%20participation%20has%20decreased>

⁷⁶ UNDP (2022). *Human Development Report 2021-22*, p.293

Access to ⁷⁷ with 99% of births now attended by skilled maternal health care has significantly improved, and 99 per cent of women now give birth with the assistance of a skilled health provider, compared to just over one-third in 2000.⁷⁹ Despite these gains, health providers.⁸⁰ However, adolescent fertility remains a concern. In 2020, is still at 46 out of every births per 1,000 girls aged 15–19 gave birth, a rate that has remained relatively unchanged since 2010.⁸¹ Cambodia has made notable progress in reducing gender disparity (2020)⁸². Gender gaps in education. Government initiatives including scholarships for low-income students (particularly girls), expanded access to subnational schools, and the construction of girls' dormitories have contributed to improved enrolment. Since 2007, preschool enrolment has doubled, and have narrowed: primary school enrolment rose from 82 per cent in % (1997) to over 97 per cent in % (2017/18.)⁸³ As of, and by 2021, 63 per cent % of girls and 52.5 per cent of boys completed lower secondary education.⁸⁴ However, disparities persist in secondary and adult education. According to the Human Development Report (SDG 4.4) compared with 52.5% of boys. Disparities last beyond that level, however: only 18.3 per cent % of females girls complete secondary education, compared to ⁸⁵ versus 31.7 per cent of males. Mean years of schooling is also lower for women (4.4 years) than for men (5.9 years). Adult % of boys, and adult literacy also remains lower among women (79.8 per cent) than men (% vs 88.4 per cent, %, 2021-).⁸⁶

Cambodia has made progress in expanding women's. Women's economic participation has also improved (Cambodia ranked rose from 77th to 61st out of 146 countries in economic participation and opportunity in, 2014–2022, improving from 77th in 2014 (then out of 142 countries). In the Global Gender Gap Index, Cambodia's score increased from 0.684 in 2021 to 0.690 in 2022, resulting in an improved ranking from 103rd to 98th. Labour force participation is relatively high for both sexes: 69.6 per cent for females and 82.1 per cent for males (2022).⁸⁷ Despite this progress, women, especially in ⁸⁸, yet rural areas women remain disproportionately vulnerable to the impacts of climate change and extreme weather events. This is primarily impacts due to structural inequalities, such as unequal in resource access to resources, power, and decision-making, as well as and entrenched patriarchal male-dominated norms.⁸⁹

In Siem Reap Province, women comprise Women constitute 50.95 per cent % of the Siem Reap's population (2019)⁹⁰. Gender roles in rural and peri-urban areas often assign women primary responsibility.⁹¹ and are primarily responsible for caregiving, domestic tasks, water collection, small-scale farming, and livestock management, while they also contribute significantly and make significant contributions to household income. Although their responsibilities span a broader range than men's Despite this extensive workload, social and economic barriers limit women's continue to restrict their autonomy. Detailed Gender Analysis also analysis indicates that women in Siem Reap frequently manage livestock feeding and procurement, exercise complete control over livestock-related financial decisions within the household and engage on an equal basis, and participate equally with men in most other livestock-related activities.⁹² Given women's substantial control over livestock, which is highly exposed to climate risks, livestock management tasks.⁹³ is identified as a key pathway for enhancing women's climate resilience. Heat stress reduces feed intake and reproduction, flooding increases disease and grazing-land loss, and dry-season scarcity heightens the water-collection burden for women. The project addresses these challenges through Output 1.1 (gender-disaggregated livestock climate-exposure assessment) and an expanded Output 2.1 (climate-resilient livestock practices co-designed with women's groups to strengthen this female-led livelihood directly).

During Gender disparities intensify during climate shocks, gender disparities often become more pronounced. Men⁹⁴: men typically have retain greater control over financial assets and mobility, which can facilitate access to facilitating alternative income sources or migration opportunities. In contrast, while women frequently prioritize the nutritional prioritise family nutrition and health needs of their families over their own, especially during periods of food insecurity.⁹⁵ Women who are and pregnant, elderly, or caring for young children face particular challenges during climate emergencies. They caregiving women face elevated risks of malnutrition, anemia, anemia, dysentery, sexually transmitted infections infection, and childbirth complications. In many instances, women have been forced to give birth in flooded health facilities or at home without adequate medical assistance, exposing them to life-threatening conditions.⁹⁶ These intersecting gender-based vulnerabilities highlight underline the importance of embedding need to embed gender equality within climate in adaptation planning — through targeted investments that enhance in women's decision-making power, secure their access to resources, and services, and ensure that inclusive, climate-resilient infrastructure, livelihoods, and early warning systems are inclusive and responsive to their needs. Community elders and knowledge

⁷⁷ <https://genderdata.worldbank.org/countries/cambodia/#:~:text=In%20Cambodia%2C%20the%20labor%20force,labor%20force%20participation%20has%20decreased.>

⁷⁸ UNDP (2022) Human Development Report 2021–22, p. 293

⁷⁹ <https://www.who.int/cambodia/news/detail/07-04-2023-cambodia-celebrates-significant-health-achievements-on-the-75th-anniversary-of-who>

⁸⁰ <https://www.who.int/cambodia/news/detail/07-04-2023-cambodia-celebrates-significant-health-achievements-on-the-75th-anniversary-of-who>

⁸¹ <https://genderdata.worldbank.org/countries/cambodia/>

⁸² <https://genderdata.worldbank.org/countries/cambodia/>

⁸³ <https://www.unicef.org/cambodia/education>

⁸⁴ <https://genderdata.worldbank.org/countries/cambodia/>

⁸⁵ <https://genderdata.worldbank.org/countries/cambodia/>

⁸⁶ UNDP 2022 Human Development Report 2021–2022

⁸⁷ <https://genderdata.worldbank.org/countries/cambodia/>

⁸⁸ <https://genderdata.worldbank.org/countries/cambodia/>

⁸⁹ PRB (2012). Women more vulnerable than men to climate change. <https://www.prb.org/resources/women-more-vulnerable-than-men-to-climate-change/>

⁹⁰ General Population Census 2019

⁹¹ General Population Census 2019

⁹² Detailed Gender Analysis (November 2022).

⁹³ Detailed Gender Analysis (November 2022).

⁹⁴ PRB (2012). Women more vulnerable than men to climate change. <https://www.prb.org/resources/women-more-vulnerable-than-men-to-climate-change/>

⁹⁵ PRB (2012). Women more vulnerable than men to climate change. <https://www.prb.org/resources/women-more-vulnerable-than-men-to-climate-change/>

⁹⁶ Algur, K. D., Patel, S. K., & Chauhan, S. (2021). The impact of drought on the health and livelihoods of women and children in India: A systematic review. Children and Youth Services Review, 122, 105909.

holders will be engaged in identifying ecosystem-based adaptation practices that have historically supported climate resilience. These gender dynamics directly inform the design of, thereby directly informing Outputs 2.1, 2.5, and 2.7.”

Beyond gender dynamics, climate vulnerability in the target districts is dictated by three intersecting structural disadvantages shape vulnerability in Cambodia: unequal access to early warning systems access for less-literate or non-Khmer-speaking households; weak land tenure security among poor, elderly, and female-headed households (limiting EbA investments); and the systematic under-representation of women, youth, PWDs persons with disabilities, and ethnic minorities in local governance. Furthermore, elderly and PWD populations face acute mobility and extreme weather risks, while ethnic minorities encounter language and institutional barriers that exacerbate safeguard vulnerabilities.

6. Environmental Context and Impact of Climate Change

Cambodia is experiencing intensifying faces escalating climate and environmental pressure, characterised by longer challenges, such as prolonged dry seasons, erratic unpredictable rainfall, increasing temperature trends, and more frequent extreme events. With limited access to resilient infrastructure, financial services, or diversified income, households face growing exposure to climate-induced hardship. Environmental degradation, such as deforestation, unsustainable land use, rising temperatures. Deforestation and pollution, further amplifies exacerbate these risks by weakening natural buffers and ecosystem services. Forest issues. The frequency of forest fires, pest outbreaks, and drying springs are increasingly reported in several regions. Biodiversity biodiversity loss and habitat fragmentation are also emerging concerns with long-term implications for ecosystem services is increasing. Without coordinated adaptation measures, these combined stressors challenges are likely to deepen intensify poverty, and food insecurity, and social inequality.

a. Land Degradation and Deforestation

Cambodia has recorded exhibits one of the highest forest loss rates of forest loss in the region. Figure 6.1 illustrates land degradation hotspots across Cambodia, highlighting 8 identifies areas where experiencing the most severe land degradation and forest loss and land-use change. Forests are concentrated.

Forest resources remain vital to poor local essential for impoverished communities in Siem Reap due to their strong reliance on forest ecosystem services for sustaining their livelihoods. However, in; however, the upper Siem Reap River catchment estimated lost approximately 36.6 per cent loss% of its forest cover between 1989 and 2019 largely, primarily due to forest degradation and conversion to agricultural land to meet the needs of a growing population agriculture. These land-use changes have altered hydrological processes. Increased surface patterns, resulting in increased runoff and sediment transport, have led to higher sedimentation in downstream ponds and lakes in downstream catchment, potentially reducing. Consequently, there is greater sediment accumulation, reduced water storage capacity, and diminished fishery productivity.⁹⁷ Focus group discussion by Jacobson, et al. (2022) indicate that associate forest loss is associated with increased heat stress. The removal of, elevated dust and respiratory issues due to fewer roadside and settlement trees has also been linked to higher dust levels and respiratory problems. Local farmers have increasingly relied on, greater reliance on chemical fertilisers and pesticides to boost crop yields. At the same time, more frequent and intense storms have been associated with a higher incidence of, and a rise in waterborne diseases.⁹⁸ resulting from frequent storms.

b. Biodiversity Loss

Cambodia’s unique flora and fauna are increasingly threatened by face increasing threats from climate change. Shifts Alterations in temperature and rainfall patterns are altering modifying habitats, and disrupting ecological balance and affecting species’ migration and breeding patterns cycles. Endemic and threatened species, including such as the clouded leopard and pangolin, face a heightened risk are particularly vulnerable due to combined pressures of habitat fragmentation loss and poaching.



Figure 6.1 Land Degradation Hotspots in Cambodia



Figure 8 Land Degradation Hotspots in Cambodia

⁹⁷ Jacobson, C., Smith, J., Sou, S., Nielsen, C., & Hang, P. (2022). Effective Water Management for Landscape Management in the Siem Reap Catchment, Cambodia, Maiko Nishi Suneetha M. Subramanian, 129.]

⁹⁸ Ibid.

c. Water Resource Challenges

The province relies depends on four main primary water sources of water: the Siem Reap River, West Baray, Tonle Sap Lake, and groundwater. However, public water supply systems operate in only eight of the twelve districts.⁹⁹ Between 1989 and 2019, the upper Siem Reap River catchment lost 36.6 per cent of its forest cover, largely due to agricultural expansion linked to population growth (Live & Learn, 2023).¹⁰⁰ Deforestation in Phnom Kulen National Park, Angkor's vital Angkor's principal watershed, has altered dry-season flowwater flows and increased soil erosion (FAO & ADB, 2019). Groundwater depletion and resources are being depleted, and the incidence of waterborne diseases are rising, posing risk threats to both food security and conservation of heritage sites (UNESCO, 2023). Traditional canals and reservoirs are increasingly unable to buffer inadequate for managing seasonal variability because of due to upstream forest deforestation, sedimentation, and inadequate maintenance sediment accumulation (Live & Learn, 2023). Over More than 27,900 m³ of groundwater is extracted daily, primarily predominantly by tourism-related businesses, contributing to enterprises, resulting in land subsidence and structural risks to the Angkor monuments through land subsidence (Phnom Penh Post, 2019). The West Baray Reservoir now supplies more than over half of Siem Reap City's City's water demand, yet overall supply this remains insufficient (MoE, 2022). The project will systematically document and integrate incorporate local ecological knowledge—such as traditional, including water management, agricultural practices, cropping patterns, and forest stewardship—into its adaptation design strategies.

d. Economy

Cambodia's economy, anchored in is heavily dependent on agriculture, tourism, construction, and garment manufacturing, is yet it remains highly exposed susceptible to climate variability change. Agriculture, which employs nearly 40 per cent % of the labour force and is increasingly affected by erratic rainfall, delayed planting seasons, and water scarcity resulting in fluctuating workforce, experiences unstable productivity and unstable rural incomes. Tourism, a major contributor to GDP, is vulnerable to climate-related impacts such as due to unpredictable rainfall and water shortages. The tourism sector is similarly affected, with reduced visitor numbers and income resulting from extreme weather events, infrastructure damage, and ecosystem degradation, all of which can factors reduce visitor numbers and local revenue. Without scaled-up adaptation, the combined economic costs of climate impact including productivity loss, asset damage, and health burdens. These challenges could approach result in losses of up to 10 per cent % of GDP by 2050.¹⁰¹ Labour productivity, particularly in outdoor sectors, is also projected to decline due to increasing¹⁰² (Section 1), while heat stress further diminishes the productivity of outdoor labour. The pace of climate change now exceeds the adaptive capacity of rural farmers. Unpredictable rainfall and prolonged droughts are causing recurrent crop failures, and many farmers lack access to irrigation, drought-resistant seeds, or timely climate information. Consequently, households are incurring greater debt, withdrawing children from school, and reducing food consumption, all of which undermine their resilience.

e. Food Security Impacts

Climate variability is exceeding the increasingly exceeds rural farming systems' adaptive capacity of many rural farming systems. Changes in: erratic rainfall patterns and intensity are undermining crop reliability, while prolonged extended droughts in provinces such as Siem Reap contribute to drive recurrent crop failures. Many smallholder, and many farmers lack access to irrigation, drought-resistant seeds, and/or climate information services, increasing their vulnerability. Food insecurity remains a concern, with undernutrition—especially among children—persisting in vulnerable communities. Climate-related livelihood instability is also driving negative coping strategies, including— (indebtedness, school withdrawals, and—reduced food consumption—further weakening) that erode household resilience.

f. Flooding, Heat Stress, and Public Health

Climate change is intensifying exacerbating public health risks in Cambodia through rising increased temperatures, more frequent flooding, and the spread of vector-borne diseases. Older persons expanded transmission of diseases such as malaria and dengue. These risks are particularly acute for older adults, children, outdoor workers, and individuals with pre-existing health conditions are particularly vulnerable. Changing climate conditions are expanding the geographic range and seasonality of diseases such as malaria and dengue. At the same time, inadequate. Inadequate water and sanitation systems increase exposure to infrastructure further elevate the incidence of diarrheal and respiratory illnesses. By 2080, Heat-related mortality diseases. Mortality from heat among older people populations is projected to rise significantly by 2080 under high-if emissions scenarios.¹⁰³ Climate remain high-emission scenario.¹⁰⁴ Additionally, climate-related displacement, crop loss failures, and livelihood disruption employment disruptions are also contributing to increased mental health stress, an emerging but under-recognized impact which frequently remains unaddressed.

g. Water Availability

Climate variability is making rendering water availability less predictable across Cambodia increasingly unpredictable. Alternating droughts periods of drought and intense rainfall events are placing additional strain on ageing or insufficient water infrastructure.

⁹⁹ Rashid, T. (2020). Local community and policy maker perspectives on sustainable livelihoods tourism, environment and waste management in Siem Reap/ Angkor, Cambodia. *International Journal of Asia-Pacific Studies*, 16(1).

¹⁰⁰ Rashid, T. (2020). Local community and policy maker perspectives on sustainable livelihoods, tourism, environment and waste management in Siem Reap, Angkor, Cambodia. *International Journal of Asia-Pacific Studies*, 16(1).

¹⁰¹ Department of Climate Change (2018). *Modelling of Climate Change Impacts on Growth*. Ministry of Environment, Kingdom of Cambodia. <http://www.camclimate.org.kh/en/policies/ncsd-news/445-445.html>

¹⁰² Department of Climate Change (2018). *Modelling of Climate Change Impacts on Growth*. Ministry of Environment, Kingdom of Cambodia. <http://www.camclimate.org.kh/en/policies/ncsd-news/445-445.html>

¹⁰³ World Health Organisation and United Nations Framework Convention on Climate Change (2016). *Climate Change Health Country Profile – 2016, Cambodia*. World Health Organisation <https://apps.who.int/iris/rest/bitstreams/1064308/retrieve>

¹⁰⁴ World Health Organisation and United Nations Framework Convention on Climate Change (2015). *Climate Change Health Country Profile – 2015, Cambodia*. World Health Organisation <https://apps.who.int/iris/rest/bitstreams/1064308/retrieve>

Many, resulting in many rural communities experiencing areas experiencing both dry-season water scarcity¹⁰⁵ and wet-season flood damage¹⁰⁶ within the same single year. Inefficient¹⁰⁵ irrigation systems reduce¹⁰⁵ further hinder agricultural resilience, while degraded adaptation. Damaged reservoirs and poor¹⁰⁵ waste management threaten water quality. Inadequate waste management has contributed to declining¹⁰⁵ have degraded water quality in the Siem Reap River and the Tonle Sap system, with adverse effects on the ecosystem, adversely affecting ecosystems and fish populations.¹⁰⁶

h. Ecosystem and Livelihood Fragility

Natural ecosystems are becoming increasingly fragile under the combined pressure of climate due to both climate change and human activities. Forest degradation, driven by illegal anthropogenic pressures. Illegal logging, unstable harvesting unsustainable extraction of non-timber forest products, and land conversion, continues to accelerate biodiversity loss and weaken diminish the ecological services that sustain upon which rural households. During periods of climate rely. Climate-related stress, households often rely more heavily on frequently compels families to exploit forest resources as for coping mechanisms. This increased dependence can intensify unsustainable extraction, perpetuating vulnerability and further degrade ecosystem integrity. In impeding recovery in the absence of diversified alternative income opportunities sources, early warning systems, and institutional support mechanism livelihood vulnerability deepens and recovery capacity declines.¹⁰⁷⁻¹⁰⁸ Ecotourism, which represents a promising pathway for sustainable.^{109, 110} While ecotourism presents development opportunities, it is also exposed to climate and environmental risks. Degradation of natural landscape threatened by degraded landscapes, biodiversity loss, and damage to access infrastructure limited accessibility, all of which reduce the destination attractiveness and viability of ecotourism destinations, with direct consequences for negatively affect local income incomes and employment.

The convergence of environmental degradation, livelihood fragility, and limited institutional capacity increases Cambodia's overall vulnerability to climate change.¹¹¹ Siem Reap reflects these national trends. Without strengthened enhanced community-driven adaptation efforts, improved natural resource governance management, and proactive ecosystem restoration,¹¹² climate impacts are likely to erode reverse development gains and heighten risks to biodiversity and livelihoods. Implementing nature-based solutions, climate-resilient infrastructure, and inclusive livelihood strategies is therefore essential to safeguard the interconnected environmental and social these systems that underpin long-term resilience and sustainable development.

7. Lessons Learned from Past Projects

The foundation of the present This proposal draws on builds upon lessons from earlier two previous Adaptation Fund-supported and climate resilience initiatives in Cambodia, which provide practical evidence on what works in vulnerable landscapes and institutional contexts:

"The Enhancing Climate Change Resilience of Rural Communities Living in Protected Areas in Cambodia" (project (UNEP/MoE, 2012–2021) was jointly implemented by the United Nations Environment Programme (UNEP) and the Ministry of Environment. UNEP's terminal evaluation recommended adopting a more decentralized implementation structure with stronger engagement of the Provincial Department of Environment and local authorities. It also emphasized that agriculture and alternative livelihoods training for Community Protected Area (CPA) groups should apply adult learning approaches and value chain perspectives, addressing both production and market access. Experience from this programme showed that adaptation demonstrated that outcomes are stronger were most effective when infrastructure investments are investment was combined with grassroots planning, institutional strengthening, and inclusive community engagement. Participatory, micro-level climate, participatory risk planning proved particularly effective in building local ownership and long-term stewardship. Resilience gains were most evident where climate resilient infrastructure was complemented by technical support in flood-prone and seasonally variable environments. The project further underscored the importance of and gender-sensitive and, pro-poor targeting to ensure that adaptation benefits reach the most vulnerable groups.

. Its evaluation recommended a more decentralised structure and value-chain-oriented livelihoods training. The Climate Change Adaptation through Small-Scale and Protective Infrastructure Interventions in Coastal Settlements of Cambodia (2021–2025) was jointly implemented by the project (UN-Habitat and the Ministry of Environment. A key recommendation from the (draft) final evaluation highlights the importance of specific, measurable, achievable, relevant, and time-bound (SMART) indicators and targets. Another recommendation stresses the value of Training of Trainers (ToT) approaches to extend impact, strengthen local capacity, and improve sustainability beyond the project cycle. This coastal project strengthened the climate resilience of vulnerable settlements (MoE, 2021–2025) enhanced resilience through community capacity-building of communities and sub-national authorities combined with targeted small-scale infrastructure investment with close collaboration with sub-national authorities, district and commune authorities, and communities. In particular, soft measures were deliberately designed to reinforce and sustain hard investments, which accounted for a substantial share of the overall budget, 68.6 per cent.

¹⁰⁵ IPCC. (2022). *Summary for Policymakers: Asia*.

¹⁰⁶ Rashid, T. (2020). Local community and policy-maker perspectives on sustainable livelihoods tourism, environment and waste management in Siem Reap, Angkor, Cambodia. *International Journal of Asia-Pacific Studies*, 16(1).

¹⁰⁷ ICEM. (2003). *Field Study Cambodia: Biodiversity and Protected Areas*.

¹⁰⁸ Adaptation Fund. (2018). *Mid-Term Review: Enhancing Climate Resilience of Rural Communities in Protected Areas*.

¹⁰⁹ ICEM. (2003). *Field Study Cambodia: Biodiversity and Protected Areas*.

¹¹⁰ Adaptation Fund. (2018). *Mid-Term Review: Enhancing Climate Resilience of Rural Communities in Protected Areas*.

¹¹¹ World Bank & ADB. (2021). *Climate Risk Country Profile: Cambodia*. <https://climateknowledgeportal.worldbank.org>

¹¹² World Bank & ADB. (2021). *Climate Risk Country Profile: Cambodia*. <https://climateknowledgeportal.worldbank.org>

% of its budget. Its evaluation recommended using SMART indicators and Training-of-Trainers approaches. The proposed current project integrates/incorporates these lessons and adapts them to the ecological and socio-institutional realities of in the three target districts. In strict alignment with the Adaptation Fund's LLA approach, the project transitions from traditional stakeholder consultation to genuine local empowerment by establishing a decentralized implementation framework. This structure transfers execution agency/ Locally Led Adaptation (LLA) approach, execution authority is transferred directly to subnational authorities and local Forest Protection Community Committees. By embedding a Training-of-Trainers (ToT) mechanism into soft interventions, the project equips local stakeholders with skillset, including the climate-smart agriculture and value-chain expertise, needed to independently manage, maintain, and scale up its hard asset investments. It places strong emphasis on: community-led adaptation planning, diversified and climate-smart livelihoods, inclusive and gender-responsive value chains and ecosystem-based adaptation interventions aligned with local needs. These elements are treated as core design principles rather than supplementary components, forming the foundation of a context-sensitive and potentially transformative adaptation pathway. Specifically, reflecting the UNEP project's call for a more decentralized structure is reflected in the devolution of implementation and finance to CDCs and Forest Protection Community Committees; the coastal project's emphasis on project's decentralisation recommendation. SMART indicators directly shaped/are embedded in the project's results framework, and its Training-of-Trainers recommendation is operationalised through the ToT model embedded in/under Component 1:

The project also incorporates a clearly structured results framework with practical and measurable indicators aligned to local conditions. Under Component 1, selected capacity-building activities—including local action plan upgrading and solid waste management—will apply a ToT approach. This model strengthens the skills of selected trainees, enabling them to cascade knowledge-trained individuals to disseminate standardised tools within their communities using standardized tools and methodologies, supported by continued technical guidance and with ongoing mentoring from the to promote ownership and sustainability. The project team. This approach is expected to enhance local ownership, cost-effectiveness, and long-term sustainability of adaptation actions.

This project is explicitly designed following the principles of structured around Locally Led Adaptation (LLA). It places, ensuring that communities at the center of are central to decision-making, prioritizes planning is bottom-up planning, strengthens community control over adaptation resources, and integrates local knowledge is integrated with scientific evidence. By doing so, the project ensures that adaptation actions are locally relevant, socially inclusive, and sustainable beyond the project lifecycle to maintain local relevance and sustainability.

8. Target Area Selection Rationale

The proposed project will be implemented in Siem Reap Province, represents a high-priority adaptation landscape where climate risk, ecosystem fragility, and livelihood dependence on natural and cultural assets converge. The province is intersect. It is among Cambodia's most climate-exposed areas. It is home to regions and includes the Angkor Archaeological Park, a globally significant cultural and ecological landscape that underpins both national heritage and local livelihoods. Increasing droughts, flash floods, and erratic rainfall are placing growing pressure on water resources, ecosystems, infrastructure, and tourism-dependent economies. These pressures threaten both community well-being and the long-term integrity of heritage and protected landscapes.

The selection of Krong Siem Reap, Svay Leu, and Banteay Srei is/were selected based on four criteria: (i) high climate risk exposure, (ii) socio-economic vulnerability and livelihood sensitivity to climate variability, (iii) ecological importance/significance for watershed and forest conservation, and (iv) strong the potential for demonstration and replication of locally led adaptation. Together, these criteria ensure that Adaptation Fund resources are directed to areas where adaptation benefits are both urgent and scalable. These districts receive limited, dedicated financing for community-led, ecosystem-based adaptation, making Adaptation Fund support is therefore essential to pilot locally led, nature-based for piloting solutions that are not yet systematically financed through domestic programmes domestically. As Cambodia's most internationally recognised heritage landscape, adaptation this site has developed successful models demonstrated in Siem Reap have high visibility and replication with significant potential for other protected and tourism-dependent areas nationwide replication. Within these three districts, the project will work in targets five poor settlements and five forest protection communities. In this project, "poor settlements" refers to the five village settlements selected on the basis of, selected for high poverty incidence—drawing on the national using IDPoor (Identification of Poor Households) classification and Equity Card data—together with, limited access to basic infrastructure and services, and high climate-hazard exposure to climate hazards. They are distinct from the, as well as five forest-protection communities, which are defined by their natural resource-management mandate rather than by poverty status.

"Communities" are understood not as homogeneous units but as diverse social groups whose members differ by gender, age, ethnicity, disability, wealth, land tenure, and livelihood, and who therefore experience climate risks differently and hold differing levels of influence over local decisions. The project recognises these differentiated needs and capacities and designs participation, activities, and benefit-sharing so. The project ensures that the priorities of less powerful groups, including women, youth, older persons, persons with disabilities, and ethnic minorities, and vulnerable households—are actively reflected rather than assumed to be covered by general community engagement. Furthermore, in these settlements and communities, the project prioritises "vulnerable households"—those incorporated, with a focus on 'vulnerable households' facing the highest climate risk combined with the and lowest adaptive capacity.

9. Systemic Barriers to Adaptation

Four system-wide barriers, rather than a lack of awareness, explain why climate risk in Siem Reap persists.

1. **Institutional and planning barriers.** Commune Investment Plans (CIPs), District Development Plans (DDPs), and sectoral plans do not incorporate climate risk, integrated adaptation solutions or nature-based solutions. Additionally, officials often lack the capacity to utilise climate data and lead locally led decision-making processes. Component 1 addresses these gaps by embedding solutions into CAPs, CIPs, and DDPs.
2. **Infrastructural and ecosystem barriers.** Degraded watersheds, inadequate drainage, and poorly maintained reservoirs increase community vulnerability to flooding, drought, and heat. Component 2 mitigates these risks through ecosystem restoration and resilient infrastructure.
3. **Financial and institutional capacity barriers.** Communities possess limited experience in managing adaptation finance, and formal funding channels seldom reach the community level with sufficient flexibility. Community Investment Agreements (CIAs) under Components 1 and 2 devolve fund management to Community Development Committees (CDCs), with fiduciary capacity-building provided under Output 1.2.
4. **Knowledge and information barriers.** Limited access to localised climate information and low literacy levels constrain effective adaptation decisions. Component 3, together with Output 2.7, addresses these challenges by developing knowledge products and early warning systems. Each Component corresponds to a Project Objective; therefore, each barrier-to-Component link also represents a barrier-to-Objective link.

B. Project/Programme Objectives

Project Goal: To enhance sustainable livelihoods and climate resilience of among communities in the heritage-protected areas of Siem Reap Province through community-led, integrated adaptation that combines nature-based solutions, climate-resilient infrastructure, and diversified livelihoods, underpinned by strengthened local capacity and improved ecosystem stewardship.

Objectives: By 2031, communities in the heritage-protected areas of Siem Reap Province have strengthened climate resilience through (i) more diversified climate-resilient livelihoods, (ii) climate-resilient small-scale infrastructure and ecosystem asset improvements, and (iii) the capacity-building of local authorities and community groups to undertake risk-informed planning, resource management, and ecosystem stewardship.

This objective will be achieved through three main components:

1. To strengthen community development and sub-national adaptive capacity investment planning processes at the Commune/Sangkat and integrated district/city levels by embedding climate risks and nature-based risk, integrated adaptation solutions into community and, and locally led decision-making within local development planning and capacity-building.
2. To implement community-led, develop and pilot prioritised climate-resilient livelihood improvements, small-scale adaptive infrastructure and sustainable green-tourism.
3. To generate and share knowledge, ecosystem-based, and livelihood investments within Commune/Sangkat and policy recommendations to support institutional learning, replication, and scaling of community-based adaptation practices district/city development plans.
3. To support local stakeholders in replicating the project's best practices through policy recommendations and knowledge-sharing initiatives.

Achieving these objectives requires reconciling balancing three aims that are often in tension-competing priorities in the Siem Reap landscape: tourism development, heritage conservation, and climate resilience. Because the The ecological systems and livelihoods that support tourism depends on are increasingly threatened by climate change. As a result, tourism-related interventions related to tourism are developed designed as adaptation strategies. Extreme measures. Climate risks such as extreme heat, erosion, flooding, drought, and ecological degradation are examples of climate risks that limit visitor access, harm damage tourism infrastructure, and jeopardize jeopardise local revenue. Watershed In response, nature-based tourism investments, including watershed restoration, eco-trail stabilization stabilisation, climate-resilient drainage, wastewater treatment, and ecosystem rehabilitation are examples of nature-based tourist investments that lessen, reduce climate vulnerability while boosting and enhance resilience and while diversifying household income. Heritage conservation is therefore advanced not as a separate goal but progresses as a co-benefit of climate-resilient resource management. Coordination with the through APSARA Authority and local administrations ensures that adaptation investments are consistent align with heritage-protection mandates across the wider Angkor landscape.

A substantial significant portion of the total project budget, 68.6 per cent, (66.97% of total budget) is allocated to Component 2, which focuses on climate-resilient infrastructure and livelihood promotion. This prioritisation allocation aligns with the needs expressed needs of by local communities, municipal administrations, and national authorities. To ensure the long-term effectiveness and sustainability of these physical investments, Component 1 will deliver provides targeted capacity-building support, enabling local stakeholders to manage, maintain, and benefit from the infrastructure ensure that these physical investments are sustainably managed, maintained, and leveraged over time. The project places communities at the center of adaptation decision-making, ensuring that investments reflect locally defined priorities and long-term stewardship.

This community-centred design is not incidental but intentional and systematic every. Each component, financing modality, and decision-making structure has been deliberately shaped developed to embody reflect the principles of Locally Led Adaptation. Table 3 summarises how the project responds to addresses each of the eight LLA Principles, translating the identified governance gaps identified above into concrete mechanisms for devolving authority, resources, and accountability to the local level.

Table 3 Alignment with the 8 Principles of Locally Led Adaptation

LLA Principle	How the Project Responds
1. Devolving decision-making to the lowest appropriate level	Community Development Councils (CDCs) manage funds and procurement through Community Implementation Agreements (CIAs). Primary Groups propose actions; Commune/Sangkat Councils validate without overriding community priorities. 40–60% of Component 2 financing flows directly to community-level institutions.
2. Addressing structural inequalities faced by women, youth, and marginalized groups	A minimum of 50% women in core community decision-making bodies (CDCs and Primary Groups) and at least 30% women in broader consultative, governance, and tourism activities , alongside a minimum of 20% youth participation. Gender-responsive design is embedded across Outputs 2.1, 2.5, and 2.7. Persons with disabilities and ethnic minorities are explicitly included in beneficiary targeting.
3. Providing patient and predictable funding that can be accessed more easily	Funds are disbursed in tranches linked to verified milestones through CIAs, giving communities predictable access to resources. The CIA mechanism reduces administrative barriers to direct community finance access.
4. Investing in local capabilities to leave an institutional legacy	A Training-of-Trainers approach under Output 1.32 builds a cadre of local resource persons. Capacity-building covers financial management, procurement, ecosystem monitoring, and early warning system operation to ensure sustainability beyond the project cycle.
5. Building a robust understanding of climate risk and uncertainty	Participatory socio-economic and climate vulnerability assessments are conducted across all target communities (Output 1.1). Climate risk profiles and green tourism opportunity maps are developed to guide local investment decisions (Output 1.2).
6. Flexible programming and learning	CDC-led review meetings enable iterative revision of Community Action Plans. Community monitoring and social audits feed back into adaptive planning. Participatory evaluation allows reprioritisation of investments based on evolving local needs.
7. Ensuring transparency and accountability	A community-based Grievance Redress Mechanism (GRM) is embedded in implementation. Social audits, public disclosure of beneficiary selection, and independent verification of milestones ensure downward accountability to local stakeholders.
8. Collaborative action and investment	Multi-tier governance links community institutions, Commune/Sangkat Councils, district authorities, and national ministries. MoE provides policy alignment; UN-Habitat provides technical oversight; communities lead implementation.

C. Project/Programme Components and Financing

Table 4 Summary of Project/Programme Components, Outputs, Outcomes, and Budget

Project/Programme Components	Expected Concrete Outputs	Expected Outcomes	Amount (US\$)
Component 1: <u>Strengthening the development and investment planning processes at the Commune/Sangkat and district/city levels by embedding climate risk, integrated adaptation solutions, and locally led decision-making into local development planning and capacity-building. Strengthening the development and investment planning processes at the Commune/ Sangkat and district/city levels by improving climate change adaptive capacity through Nature-based Solutions (NbS) and targeted capacity-building activities</u>	Output 1.1. Participatory socio-economic and climate vulnerability assessments conducted across poor settlements and forest protection communities in three districts, including analysis of traffic safety and disaster risks, tourism-related environmental pressures and NbS potential.	Outcome 1: <u>Sub-national development and investment planning processes (Commune/Sangkat and District levels) are climate-informed and demonstrate enhanced institutional capacity to integrate nature-based solutions and green tourism into adaptive governance frameworks.</u>	96,000
	Output 1.2 Community groups and local authorities supported in preparing and formalizing Community Action Plans and community groups strengthened through targeted training on climate-risk profiles, and resilient urban and rural planning, disaster preparedness, green and safe tourism, and climate-smart agriculture, including exposure visits to best practice sites.	<u>Sub-national development and investment planning processes (Commune/Sangkat and District levels) are climate-informed and demonstrate enhanced institutional capacity to integrate nature-based solutions and green tourism into adaptive governance frameworks.</u>	85116,000
	Output 1.3 Capacity of sub-national Community groups and local authorities and community groups strengthened through targeted training on supported in preparing and formalizing Community Action Plans, climate-resilient urban and rural planning, disaster preparedness, risk profiles, and green and safe tourism, and climate-smart agriculture, including exposure visits to best practice sites, opportunity maps, through inclusive, participatory processes.	<u>Sub-national development and investment planning processes (Commune/Sangkat and District levels) are climate-informed and demonstrate enhanced institutional capacity to integrate nature-based solutions and green tourism into adaptive governance frameworks.</u>	44670,000
	Output 1.4 Community groups and local authorities supported in preparing and formalizing Community Implementation Agreements that prioritize, implement, and monitor locally led adaptation actions identified in the Community Action Plan, through inclusive, participatory processes.	<u>Sub-national development and investment planning processes (Commune/Sangkat and District levels) are climate-informed and demonstrate enhanced institutional capacity to integrate nature-based solutions and green tourism into adaptive governance frameworks.</u>	95110,000
Sub-total (1)			392,000
Component 2: <u>Developing and piloting prioritized climate-resilient infrastructure, ecosystem-based, and</u>	<u>Output 2.1 Climate-smart agriculture and value-addition practices piloted in at least five forest protection communities, supported by market analysis and training. Output 1.5 Solid waste management capacities improved in Krong Siem Reap, Banteay Srei, and Svay Leu Districts through awareness training and installation of waste segregation, composting, and recycling systems.</u>	Outcome 2: Vulnerable households and communities benefit from improved livelihoods and enhanced resilience through the implementation	488541,000

livelihood investments within Commune/Sangkat and district/city development plans. Component 2: Developing and piloting prioritized investments within Commune/ Sangkat and district/city development plans to promote sustainable human settlements through the application of NbS.	Output 2.2 A regional nursery is fully operationalized to support community-based reforestation and assisted natural regeneration through training, seed propagation, and strategic restoration. Output 2.1 Climate-smart agriculture and value addition practices piloted in at least five forest protection communities, supported by market analysis and training.	of nature-based, small-scale infrastructure and adaptive land-use practices aligned with sustainable tourism and agriculture.	\$41250,000
	Output 2.2 A regional nursery is fully operationalized to support community-based reforestation and assisted natural regeneration through training, seed propagation, and strategic restoration. Output 2.3 Ecological and tourism value of Banteay Srei's reservoir site enhanced through trail rehabilitation, removal of invasive species, and installation of visitor amenities with small-scale solar lanterns at houses and public spaces for safety and minimum economic burdens.		250450,000
	Output 2.3 Ecological and tourism value of Banteay Srei's reservoir site enhanced through trail rehabilitation, removal of invasive species, and installation of visitor amenities with small-scale solar lanterns at houses and public spaces for safety and minimum economic burdens. Output 2.4 Water retention and climate buffer capacity increased in Svay Leu District through sediment clearance, water gate construction, and embankment stabilization.		450699,000
	Output 2.4 Water retention and climate buffer capacity increased in Svay Leu District through sediment clearance, water gate construction, and embankment stabilization. Output 2.5 Eco-villages established or upgraded using circular resource systems, including renewable energy, food forests, wastewater treatment, and climate-resilient homestays to support sustainable and safe tourism.		699560,000
	Output 2.5 Eco-villages established or upgraded using circular resource systems, including renewable energy, food forests, wastewater treatment, and climate-resilient homestays to support sustainable and safe tourism. Output 2.6 Flood-resilient community nature-based infrastructure solutions, including sewerage and eco-wastewater systems, constructed or improved in vulnerable settlements in Sangkat Nokor Thom.		\$60510,000
	Output 2.6 Flood-resilient community nature-based infrastructure solutions, including sewerage and eco-wastewater systems, constructed or improved in vulnerable settlements in Sangkat Nokor Thom. Output 2.7 Community-based Early Warning Systems for floods, droughts, lightning installed and operationalized in high-risk areas, with community training and local monitoring.		\$10150,000
	Output 2.7 Community-based Early Warning Systems for floods, droughts, lightning installed and operationalized in high-risk areas, with community training and local monitoring. Output 2.8 Solid waste management capacities improved in Krong Siem Reap, Banteay Srei, and Svay Leu Districts through awareness training and installation of waste segregation, composting, and recycling systems.		150188,000
Sub-total (2)			3,348,000
Component 3: Supporting the local stakeholders in replicating the project's best practices through policy recommendations and knowledge sharing initiatives. Supporting the local stakeholders in replicating the	Output 3.1 Coordination meetings, study visits, and capacity-sharing workshops are conducted among implementing partners, local tourism businesses, cultural authorities, and community stakeholders.	Outcome 3: Proven models for nature-based, community-led, integrated climate adaptation, spanning nature-based solutions, resilient infrastructure, and sustainable green tourism diversified	205,000
	Output 3.2 Policy briefs and recommendations promoting sustainable tourism are developed and submitted to relevant sub-national and national authorities.		156,000
	Output 3.3 Knowledge products are produced and disseminated, documenting good practices, lessons learned, and replication strategies.		107,000

project's best practices through policy recommendations and knowledge-sharing initiatives.		livelihoods, are documented, disseminated, and adopted for replication and policy integration at sub-national and national levels, including within Siem Reap's sustainable green tourism economy.	
Sub-total (3)			468,000
Components Total (A)			4,208,000
6. Project/Programme Execution cost (9.5 per cent)			399,760
7. Total Project/Programme Cost			4,607,760
8. Project/Programme Cycle Management Fee charged by the Implementing Entity (if applicable)			391,660
Amount of Financing Requested			4,999,420

Table 5 below makes explicit the activity-to-output-to-objective chain for each output in Table 4, drawing on the activities already described in each output's narrative. Because Objectives 1, 2, and 3 correspond directly to Components 1, 2, and 3, this table confirms all output's activities are consistent with its listed output and its component's objective; no output's activities are disconnected from either.

Table 5 Activity-to-output-to-objective mapping

Output	Key activities delivering the output	Contributing objective
<u>1.1 Vulnerability assessments</u>	Participatory socio-economic and climate vulnerability assessments; documentation of observed climate trends; traffic-safety, disaster-risk, and NbS-potential analysis	<u>Objective 1</u>
<u>1.2 Capacity-building</u>	Training-of-trainers on climate-resilient planning, disaster preparedness, green tourism, and climate-smart agriculture; People's Process facilitation training; fiduciary, procurement, and O&M training	<u>Objective 1</u>
<u>1.3 Community Action Plans, risk profiles, and tourism maps</u>	Community consultations, prioritisation, costing and budgeting of Community Action Plans; climate risk profiling; green/safe tourism opportunity mapping; community-defined subproject scoring	<u>Objective 1</u>
<u>1.4 Community Implementation Agreements</u>	Once a CAP is endorsed, CIA preparation and formalisation, tranche-based fund disbursement, community-led procurement, labour mobilisation, financial record-keeping, and social audits	<u>Objective 1</u>
<u>2.1 Climate-smart agriculture</u>	Farmer training (1,242 farmers) in agroecological practices (intercropping, composting, drip/treadle-pump irrigation); 10 demonstration plots incorporating soil-conservation practices (contour farming, cover cropping, reduced tillage); at least one buyer/market linkages per community; soil-conservation and climate-resilient livestock measures.	<u>Objective 2</u>
<u>2.2 Nursery and reforestation</u>	Regional nursery operation (at least 50,000 seedlings/year); native-species propagation; community-based reforestation and assisted natural regeneration (minimum 150 ha)	<u>Objective 2</u>
<u>2.3 Banteay Srei reservoir/eco-trail</u>	Sediment removal, invasive-species control, slope stabilisation, ~2.5 km eco-trail rehabilitation, solar lighting and visitor amenities	<u>Objective 2</u>
<u>2.4 Svay Leu reservoir rehabilitation</u>	Sediment clearance, vegetation management, embankment stabilisation, water-gate repair across ~57 ha	<u>Objective 2</u>
<u>2.5 Eco-villages</u>	Renewable energy and passive-cooling installation; food-forest and wastewater-reuse systems; composting/biogas; local low-carbon materials; homestay upgrades Composting and biogas within these systems close local nutrient loops, reducing dependence on synthetic fertilisers and the land degradation this drives, while treated wastewater reuse for food forests eases dry-season irrigation demand and builds resilience to the rainfall decline projected for Siem Reap.	<u>Objective 2</u>
<u>2.6 Sewerage / eco-wastewater</u>	Constructed wetlands and vegetated buffer/infiltration zones combined with engineered sewerage in Sangkat Nokor Thom	<u>Objective 2</u>
<u>2.7 Early warning systems</u>	Installation of rain gauges, river-level sensors, and lightning detectors; community alert protocol; local monitor training	<u>Objective 2</u>
<u>2.8 Solid waste management</u>	Waste segregation, composting, and recycling system installation; climate-environment awareness training By keeping solid waste out of stormwater drains, this reduces the blocked-drainage flooding already documented in Krong Siem Reap, and diverting organic waste from open dumping	<u>Objective 2</u>

	lowers the waterborne-disease and surface-water contamination risks that intensify during the wet season.	
3.1 Coordination and capacity-sharing	Coordination meetings, study visits, and capacity-sharing workshops among implementing partners, tourism businesses, cultural authorities, and communities	Objective 3
3.2 Policy briefs	Development and submission of sustainable-tourism policy briefs and recommendations to sub-national and national authorities	Objective 3
3.3 Knowledge products	Production and dissemination of knowledge products documenting good practices, lessons learned, and replication strategies	Objective 3

D. Theory of Change Narrative

IF sub-Pathway steps

1. Climate hazards, including droughts, flooding, and heatwaves, increase the vulnerability of Heritage Protected Areas in Siem Reap Province. This heightened vulnerability results from climate-sensitive livelihoods, limited sub-national planning capacity, degraded watersheds, inadequate drainage, and persistent gender and social inequalities.
2. Barriers impeding climate adaptation by sub-national stakeholders include insufficient institutional planning capacity, inadequate or damaged infrastructure and ecosystems, limited financial mobilisation and allocations, and knowledge or information gaps.
3. Adaptation Fund financing will deliver technical assistance and support project activities through the People's Process, ensuring effective participation and engagement of beneficiaries in both implementation and monitoring.
4. Participatory project implementation will strengthen the capacity of Commune/Sangkat and district/city stakeholders in climate-informed planning (Component 1), enhance climate-resilient infrastructure, ecosystem restoration, and diversified livelihoods in heritage-protected areas (Component 2), and generate knowledge products and policy integration (Component 3).
5. The outcomes of each output include strengthened climate-informed sub-national planning and institutional capacity (Outcome 1), improved climate-smart livelihoods and resilience in target areas (Component 2), and the promotion of adaptation model replication and policy recommendations.
6. These outcomes will enable communities in heritage-protected areas of Siem Reap Province to achieve durable, climate-resilient livelihoods, infrastructure, and governance.

Component 1 and Component 2 are closely linked. The priority sites and interventions in Table 4 come from early screening and consultations during project preparation. As the project moves forward, Component 1 finalizes, sequences, and allocates resources for each investment. **Output 1.1** checks site boundaries, targeting, and technical details at the community level. **Output 1.2** builds the technical and financial skills communities need before contracts begin. **Output 1.3** turns these findings into detailed and prioritized Community Action Plans (CAPs), which set the order of investments for each community. **Output 1.4** changes each CAP item into a Community Implementation Agreement (CIA), giving implementation authority and funding to the Community Development Committee. Component 2 funds are only released after a CAP is approved and a CIA is signed. The Community Development Committee leads review meetings and social audits to give feedback on progress. This feedback helps update CAPs and, if needed, CDPs, CIPs, or DDPs under Output 1.3. This approach makes sure that lessons from Component 2 help improve planning in Component 1, so the two components work together instead of separately.

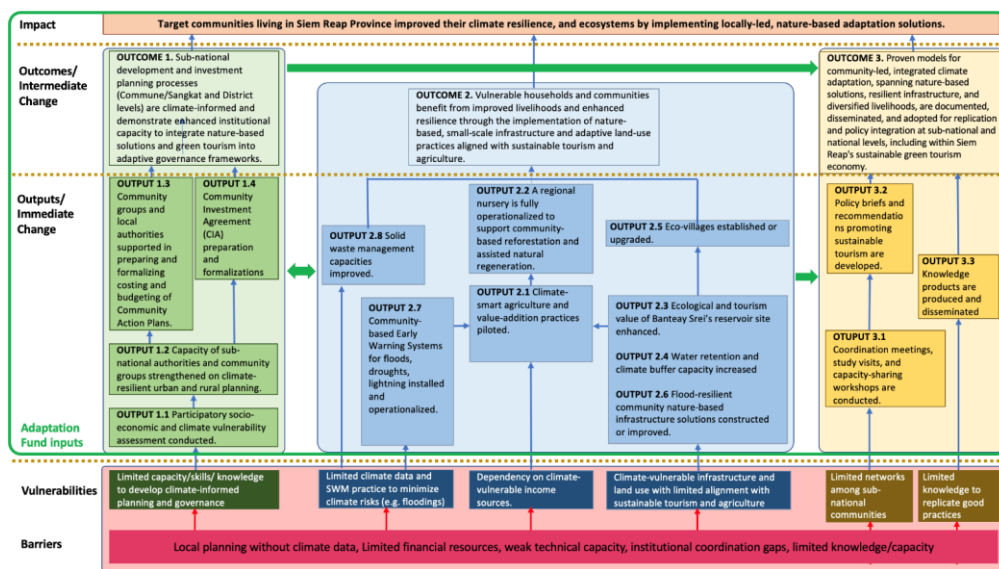


Figure 9. Theory of Change pathway diagram: Barriers/Vulnerabilities → Adaptation Fund inputs → Outputs → Outcomes → Impact, showing the outputs contributing to each outcome.

E. Key assumptions underlying this pathway

1. Sub-national authorities that acquire planning capacity will maintain sufficient institutional continuity, including staff retention and budget authority, to apply these capacities beyond the project period.
2. Communities empowered through Community Implementation Agreements (CIAs) will exercise fund-management responsibility without elite capture, contingent upon the project's safeguards framework.
3. Restored ecosystems and constructed infrastructure will function as designed under both current and projected climatic scenarios.
4. Sub-national and national institutions at the Commune/Sangkat level will possess sufficient absorptive capacity and policy interest to integrate documented lessons into Commune Development Plans (CDPs), Commune Investment Plans (CIPs), District Development Plans (DDPs), and national frameworks.
5. Co-financing and government counterpart engagement will remain available to sustain institutional functions after Adaptation Fund financing concludes.

If sub-national institutions strengthen their climate-risk-informed planning capacity through targeted training, access to updated climate information, and locally grounded socio-economic and vulnerability assessments, THEN then they will be able to systematically integrate climate risk, integrated adaptation solutions, and locally prioritized nature-based solutions (NbS) led decision-making into official development and investment plans. This integration will improve enhance institutional decision-making under climate uncertainty, strengthen improve inter-agency coordination, and increase preparedness for heatwaves, droughts, floods, and ecosystem degradation, thereby reducing institutional vulnerability to climate risk and improving adaptive governance performance. The project will prioritize. The project prioritises bottom-up planning, enabling communities to define risks and guide local investment choices.

IF If vulnerable communities — including poor farmers, women-headed households, youth, and marginalized/marginalised groups — lead, participate in the identification, prioritization/prioritisation, and implementation of locally-led adaptation actions, and IF they receive with direct technical and financial support through Community Action Plans/CAPs and Community Implementation Agreements to invest in NbS/CIAs for nature-based small scale solutions infrastructure, climate-smart agriculture, water-resilience measures, and sustainable green-tourism livelihoods, THEN then households will reduce exposure to climate hazards, lower/decrease sensitivity to climate-induced income shocks, and increase adaptive capacity through diversified, resilient livelihood systems. This will measurably improve livelihoods. These changes will enhance income stability during climate stress periods, reduce climate-related livelihood losses, strengthen food and water security, and enhance overall household and community-level resilience.

IF If community-led adaptation knowledge, gender-responsive strategies, and locally tested NbS/nature-based solutions models are systematically documented, validated, and disseminated, and IF if sub-national and national stakeholders actively engage in peer learning, coordination platforms, and policy integration processes, THEN then evidence-based adaptation approaches will be replicated and scaled through formal planning, budgeting, and regulatory systems. This process will reduce the risk of

maladaptation, increase the efficiency and impact of adaptation finance, and institutionalise locally led climate-resilience practices across multiple jurisdictions.

Therefore, communities in the heritage-protected landscapes of Siem Reap Province will transition toward climate-resilient development pathways that are robust under current and projected climate scenarios. Over time, the project will deliver measurable reductions in climate vulnerability, including lower disaster-related livelihood losses, improved water security during droughts, reduced flood exposure to flood damage, strengthened ecosystem buffering capacity, and more stable, climate-resilient incomes. Simultaneously, local authorities and community institutions will demonstrate sustained improvements in risk-informed planning, inclusive governance, ecosystem stewardship, and long-term adaptive capacity, ensuring that locally led nature-based adaptation remains durable, and scalable, and resilient beyond the project lifecycle.

E. Projected Calendar

Table 56 Project Milestones and Timeline

Milestones	Expected Dates
Start of Project/Programme Implementation	June 2027
Mid-term Review (if planned)	May 2029
Project/Programme Closing	May 2031
Terminal Evaluation	December 2031

PART II: PROJECT / PROGRAMME JUSTIFICATION

A. Project components, focusing on the concrete adaptation activities of the project, and contribution to climate resilience

The project targets the poorest and most climate-vulnerable populations in Siem Reap's heritage-protected areas of Siem Reap Province. Activities are chosen through structured, inclusive processes that address local climate risks, livelihood vulnerabilities, and ecosystem degradation. Adaptation follows a community-driven approach, enabling local actors to identify risks, set priorities, and help implement and oversee solutions. Decision-making is anchored in a multi-tier governance structure that links community institutions with formal planning systems: level decision process. Primary Groups will propose actions. Community Development Councils (CDCs) will prioritise them, and Community Action Plans (CAPs) are approved by, and both CDCs and Commune/Sangkat Councils.

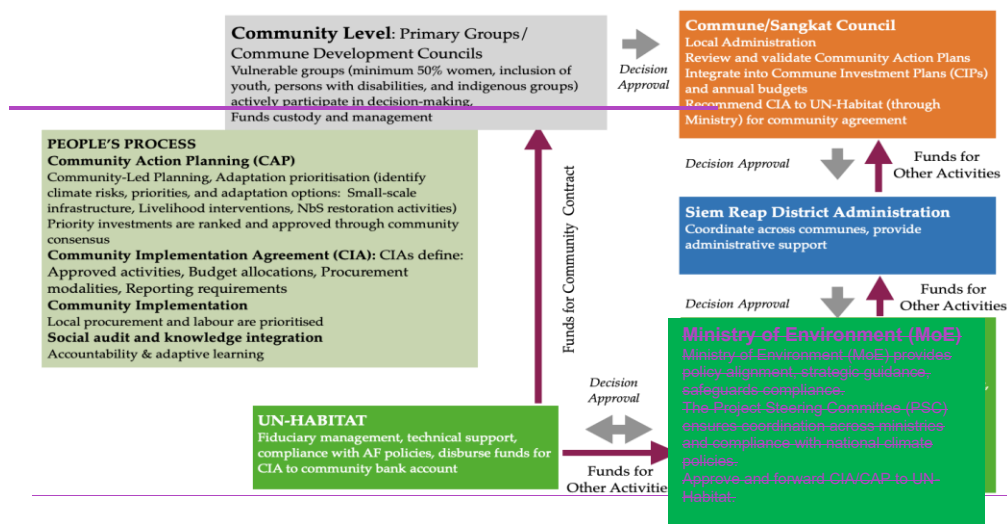
will endorse the Community Action Plans (CAPs). Equitable participation means actively addressing the barriers that prevent disadvantaged groups from participating meaningfully. In practice, this combines will be ensured by minimum thresholds for 50% women (50%) and 20% youth (20%) and, quorum-based decisions with, and targeted measures such as women-only consultations, accessible meeting times and venues, and times, disability support for persons with disabilities, and language facilitation in relevant languages so that women, youth, ethnic minorities, persons with disabilities, and vulnerable households can influence decisions, not merely attend. (Link to, These steps will ensure disadvantaged groups have a meaningful role in decision-making (LLA Principle 2: Addressing inequalities).

Align. In line with LLA Principle Principles 1 (Devolving decision-making) and Principle and 8 (Collaboration), Community Implementation Agreements (CIAs) provide the mechanism for transferring will transfer decision-making and financing to the local levels. Funds will flow from the Implementing Entity (the organisation responsible for overseeing the project) to the Executing Entity (the organisation carrying out the project), then to the Community Development Committee (CDC)-managed accounts. Disbursements are based on milestones and linked to verified progress. About, with 40-60% of Component 2 financing will go going directly to community-level institutions based on milestones. CDCs will manage procurement (purchasing goods and services), labour mobilisation (coordinating local workforce), and financial records within in accordance with approved Community Action Plans (CAPs). Defined and will be supported by fiduciary (financial management and accountability) procedures, reporting, and independent verification provide support. Social accountability is reinforced through, public disclosure, and community-led social audits (community reviews of financial records and project activities).

Subproject selection follows will follow transparent, community-defined criteria aligned with the (LLA Principle 7: Transparency and accountability. These criteria include), including climate risk reduction potential, number of beneficiaries, beneficiary numbers, cost-effectiveness, environmental sustainability, and social inclusion. Beneficiary selection is conducted through participatory consultations and, all of which will be validated in open, publicly disclosed community meetings. Results are publicly disclosed to ensure fairness and accountability.

Operationalising Locally Led Adaptation through the People's Process

The proposed project operationalises Locally Led Adaptation (LLA) through the application of UN-HABITAT's People's Process, a structured, community-driven methodology that places decision-making power, resource control, and implementation



To build capacity for direct fund management, each CDC must complete a documented capacity and compliance process before receiving funds. As standing sub-committees of the Commune/Sangkat Council under Cambodia's decentralisation framework, CDCs do not require separate NGO registration. Unregistered Forest Protection Committees will be formally registered under the Community Forestry Sub-Decree (2003). Each CDC must open a dual-signatory account with at least one woman signatory before the first disbursement and pass an independent assessment of fiduciary training under Output 1.2, covering bookkeeping, procurement, reporting, and CIA compliance. CDCs that have not yet met these requirements will implement their first subproject with support from the Executing Entity. Risk is further mitigated through milestone-based disbursement, mandatory quarterly financial reporting, unannounced spot-check audits on at least 20% of CDCs annually, and the social audits and disclosures described above.

Clarifying decision-making authority: The following table (Table 7) outlines which decisions are delegated to community groups and which remain with Commune/Sangkat Councils, the Ministry of Environment (Executing Entity), and UN-Habitat (Implementing Entity) across key project combines-functions. These functions include sub-project selection, intervention design, procurement, budgeting and reallocations, fund disbursement, implementation, monitoring and reporting, and CAP revision. Where an actor's role is limited to validation or oversight rather than initiation, this is explicitly stated.

Table 7 Delineating decision-making authority across the project cycle.

Function	Community Groups (Primary Groups / CDCs)	Commune/Sangkat Council	MoE (EE)	UN-Habitat (IE)
Sub-project / site selection	Propose and prioritize using community-defined scoring criteria	Validate consistency with CIP/DDP; cannot override community priorities	Screen for technical and AF-eligibility criteria	
Intervention design	Co-design with technical support; confirm siting and design choices	=	Provide engineering/technical design and climate-scenario review (Outputs 2.3–2.6)	
Procurement	CDCs execute procurement for CIA-funded activities under dual-signatory control	Compliance oversight for CAP-linked works	Fiduciary oversight; direct procurement for works above CDC capacity thresholds	
Budgeting & reallocations	Propose reallocations within approved CAP/CIA envelope	Approve reallocations affecting CIP alignment	Final approval against AF budget lines and results framework	
Fund disbursement	Manage CDC bank account; verify milestones at community level	=	Release tranches: IE → EE → CDC accounts, against verified milestones	
Implementation	Lead on-the-ground delivery (labour, local materials, site oversight)	=	Technical supervision and quality assurance	

Monitoring & reporting	Community-based monitoring; quarterly financial and progress reports; social audits	Endorse community reports	Receives aggregated national reporting on climate finance	Consolidate M&E; report to the Adaptation Fund Board
CAP revision / adaptive learning	Initiate and lead revision based on implementation experience	Endorse revised CAP	Technical review of revisions	
National strategic oversight	=	=	Strategic oversight; confirms alignment with national climate strategy; represented on the Project Steering Committee	Secretariat function to the Project Steering Committee; day-to-day project execution

Ensuring sustained local decision-making: CDCs will function as standing council sub-committees, not temporary project bodies, so their CAP and CIA authority will continue within commune governance after the project concludes. Community-defined selection criteria and the CAP revision cycle will become standard commune procedures, informing annual CIP updates beyond 2031. Community authority will cover all three components: prioritisation and design input in Component 1, fund management and implementation oversight in Component 2 (via CIAs), and validation of lessons in Component 3.

Communities as decision-makers: Three safeguards will ensure this principle. First, Component 2 pilots will be based on community-led assessments from Component 1 (Outputs 1.1–1.2), not a pre-set menu, even when sites such as the Banteay Srei reservoir are identified at the concept stage. Second, community authority will include technical choices within defined parameters, such as eco-village layout, species selection, and market linkages. Third, CDC-led Component 3 review meetings will allow communities to revise their own CAPs, including reprioritising activities that have not yet been implemented.

Resolving disputes within community structures: The community Grievance Redress Mechanism (GRM) will address safeguard complaints, while a simplified process will manage disagreements over prioritisation, beneficiary selection, or implementation. Disputes will be first raised within the originating Primary Group and discussed using community-defined scoring criteria (Output 1.3). If unresolved, disputes will be reviewed by the CDC at an open meeting, with decisions recorded and publicly disclosed. Disputes not resolved at the CDC level, or those involving allegations of elite capture or misconduct, will be escalated to the Commune/Sangkat Council and, if necessary, to the district-level formal GRM process.

The project will integrate institutional ('soft,' meaning policy and organisational) and investment ('hard,' meaning physical and financial) measures: under Components 1 and 3 strengthen planning systems, institutional capacity (the ability of organisations or institutions to perform functions effectively), and knowledge flows (the exchange of information and skills). Component 2 finances with investment measures under Component 2, including climate-resilient infrastructure (structures designed to withstand climate impacts) and ecosystem-based solutions (approaches using natural systems to address challenges). Nature-based interventions include reforestation (planting trees in deforested areas), agroforestry (integrating trees and crops/livestock), watershed rehabilitation (restoring river basins that collect and supply water), and wetland restoration (reviving waterlogged areas valuable for wildlife and water quality). These interventions enhance water regulation (management of water flow and supply), reduce erosion (prevent soil loss), and support biodiversity (variety of living organisms). Local knowledge is integrated will be combined with technical expertise to ensure context-appropriate solutions. A community-based grievance redress mechanism (GRM, a system for resolving complaints) is embedded within the implementation. This addresses Grievance Redress Mechanism will address issues related to beneficiary selection, financial management (including fund handling, and expenses), and subproject delivery. Grievances are managed at the community level. There are, with escalation pathways to Commune/Sangkat (local administrative units) and district authorities as needed.

Component 1: Strengthening the development and investment planning processes at the Commune/ Sangkat and district/city levels by improving climate change adaptive capacity through Nature-based Solutions (NbS) and targeted capacity-building activities. Component 1 strengthens planning at the Commune/Sangkat and district/city levels by improving climate adaptive capacity through Nature-based Solutions (NbS) and focused training. It addresses gaps in climate-responsive planning at community and sub-national levels. In Cambodia's fragmented context, Component 1 addresses a key gap: Cambodia's Commune Investment Plans (CIPs) and sectoral plans often lack attention to overlook climate risks, risk, gender equality, and nature-based solutions. The component uses structured, participatory, locally led planning, including the People's Through the People's Process and Community Action Planning (CAP), where communities will assess risks, analyse vulnerabilities, and prioritise actions based on feasibility and local relevance. CAPs will be aligned with CIPs and District Development Plans (DDPs), ensuring to ensure community priorities are reflected in official plans and budgets. This leads to sustained implementation and stronger institutional ownership. The component will formalise community governance, conduct vulnerability assessments, develop climate risk profiles and green tourism maps, and deliver capacity building to authorities and community groups on resilient planning, NbS, disaster preparedness, and governance. These actions enhance the institution's capacity for (LLA Principle 4). The Ministry of Environment will provide policy alignment, strategic guidance, and safeguards compliance. The Project Steering Committee will ensure cross-ministry coordination and compliance with national climate policy, and will approve and forward CAPs and CIAs to UN-Habitat through this structure.

Institutionalising CIP and DDP updates: Integrating CAPs represents a lasting institutional change. Once a Commune/Sangkat Council endorses a CAP, its priority actions are included in the next annual CIP and, where relevant, the DDP update cycle through existing national procedures. Corresponding budget lines are proposed and tracked by the Council beyond the project period. CAP-driven priorities continue to receive funding through the regular planning cycle after project closure, independent of ongoing AF financing.

Outcome 1, climate-informed planning, coordination, and resource use. Embedding participatory planning into governance creates a foundation for sustained, locally led adaptation and future climate investment. Soft investment under component 1 is strongly linked to LLA Principle 4. Investing in local capabilities sub-national planning, is achieved through four outputs, each delivered by specific activities described below.

Outcome 1: Sub-national development and investment planning processes (Commune/Sangkat and District levels) are climate-informed and demonstrate enhanced institutional capacity to integrate nature-based solutions and green tourism into adaptive governance frameworks. Local development planning (Commune/Sangkat and District levels) is climate-informed, with institutions better able to integrate nature-based solutions and green tourism. Climate risk and nature-based solutions are systematically included in planning. Sub-national authorities gain skills to use climate data in planning and budgeting, enabling fair and effective resource allocation for adaptation. Communities define risks, co-design solutions, and help monitor outcomes. This creates governance that can better plan for climate risk, lower vulnerability, and maintain adaptation over time. CAP processes embed community-led adaptation into formal planning and budget systems, ensuring its continued implementation.

Output 1.1. Participatory socio-economic and climate vulnerability assessments conducted across poor settlements and forest protection communities in three districts, including analysis of traffic safety and disaster risks, tourism-related environmental pressures and NbS potential. Participatory socio-economic and climate vulnerability assessments **Output 1.1 (vulnerability assessments)** will be conducted in five poor settlements and five forest protection communities across three target districts. Using a locally led approach, communities will identify climate hazards, document observed climate trends, and analyse livelihood sensitivities and existing coping strategies. **districts.** Given the **Siem Reap's** heritage and tourism importance of Siem Reap Province, the **significance**, assessments will also examine **address** traffic safety and, disaster risks associated with climate events **risk**, tourism-related environmental pressures, and opportunities **the potential** for nature-based solutions. Findings will be translated into accessible, actionable climate risk information that guides local investment decisions and strengthens community ownership of adaptation planning. The assessment process itself builds local awareness and capacity **risk information** to understand climate risks and adaptation options. It is linked to **build community ownership of planning** (LLA Principle 4 links to LLA principle 5: Understanding risk.).

Output 1.2 Community groups and local authorities supported in preparing and formalizing Community Action Plans climate risk profiles, and green and safe tourism opportunity maps developed through inclusive, participatory processes. Adaptation priorities will be integrated into climate-informed CAPs and included in local and district plans. CAPs will involve community consultations, prioritisation, costed planning, and budgeting. Climate risk profiles will cover target districts and forest communities. Tourism maps will highlight viable sites and routes, supporting diverse livelihoods. Subproject selection will follow community-defined scoring criteria, including climate risk reduction, beneficiaries, cost-effectiveness, sustainability, and inclusion. Decisions will be documented, endorsed by assemblies, and validated by local councils to ensure transparency and consistency.

Output 1.3 Capacity of sub-national authorities and community groups strengthened through targeted training on climate-resilient urban and rural planning, disaster preparedness, green tourism, and climate-smart agriculture, including exposure visits to best practice sites. Capacity (capacity-building programmes will develop institutional and technical competencies of sub-national authorities and community groups to design, implement, and manage adaptation interventions. Training will cover climate-resilient planning, disaster preparedness, green tourism, climate-smart agriculture, and NbS integration. **A) will use a training-of-trainers approach will and the People's Process** to develop local resource persons, supported by ongoing mentoring. A core component of the training will be **and strengthen the application of the UN-Habitat People's Process** to enhance the capacity of forest-protection communities to **leadengage in** participatory, community-driven actions for forest conservation, biodiversity regeneration, and climate resilience. **Capacity.** The program will address capacity gaps in financial management, procurement, and technical implementation will be addressed through targeted training and supervision, enabling CDCs to progressively manage funds, implement subprojects, and **fulfilmeet** fiduciary responsibilities in a compliant and accountable manner. Training will also include operation. Additional training will cover operations and maintenance of infrastructure, ecosystem monitoring, and early warning systems, ensuring long-term sustainability. It is linked to **(LLA principle 3. Patient and predictable funding.Principle 3).**

Output 1.4 Community groups supported in preparing and formalizing Output 1.3 (Community Action Plans, climate risk profiles, and tourism opportunity maps) will integrate adaptation priorities into climate-informed CAPs through community consultation, costed planning, and community-defined scoring criteria. This output will be complete once a CAP is formally endorsed by the community assembly and Commune/Sangkat Council (LLA Principles 5 and 6).

Output 1.4 (Community Implementation Agreements that prioritize) will prioritise, implement, and monitor **locally-led adaptation actions.** Community groups and Commune/Sangkat Councils will translate vulnerability findings into CAPs and Community Implementation Agreements (CIAs) aligned with local planning frameworks. CIA's function as a community contracting mechanism, enabling direct management of adaptation resources **the endorsed CAP's actions.** Funds will be disbursed in tranches linked to **against verified** progress, with communities **responsible forhandling** procurement, labour mobilisation, financial record-keeping, records, and reporting. CDCs will **overseeoverseeing** allocation decisions, while; and Commune/Sangkat authorities provide validation and compliance oversight **validating** without overriding community priorities. Social audits and community monitoring ensure transparency and accountability. This mechanism enables direct access to climate finance, strengthens ownership, enhances sustainability, and improves coordination with national adaptation financing. CIAs are the mechanism through which community institutions directly manage and allocate locally devolved financial resources, rather than serving as consultative instruments. Communities will also oversee construction quality, track expenditures, and formally certify subproject completion of subprojects prior to **before the final tranche disbursementrelease** (LLA Principle 3). Distinguishing CAP

development (Output 1.3) from CIA preparation (Output 1.4) as separate, sequential outputs gives planning and fund management/implementation each a clear, distinct scope, rather than merging them into a single output.

Output 1.5 Solid waste management capacities improved in Krong Siem Reap, Banteay Srei, and Svay Leu Districts through awareness training and installation of waste segregation, composting, and recycling systems.—This output addresses climate-sensitive waste management challenges that contribute to flooding, pollution, and public health risks. Activities include waste segregation, composting, recycling, and awareness on climate-environment linkages. Improved waste management reduces drainage blockage, lowers flood risk, and enhances ecosystem health, supporting tourism and livelihoods. Sustained behaviour change and local capacity will be reinforced through training, community monitoring, and integration into local service systems.

2- Sequencing and linkage between Component 1 and Component 2: Component 2 investments are direct outputs of Component 1 and are not selected independently. Output 1.1's vulnerability assessments and climate risk profiles will rank hazards by site. Output 1.3's Community Action Plans and tourism opportunity maps will translate these rankings into a prioritised, community-endorsed candidate list. Specific Component 2 pilots (Outputs 2.1–2.8) will be selected from this list, not from a pre-determined menu. Output 1.4 Community Implementation Agreements will formalise the transfer of implementation authority and financing for selected investments to CDCs. This process will be iterative. CDCs will lead review meetings and social audits (Component 3) feed lessons from Component 2 back into CAP revisions (Output 1.3), CIA adjustments (Output 1.4), and training priorities (Output 1.2). If a Component 2 pilot is identified at the concept stage (such as the Banteay Srei reservoir or Svay Leu water infrastructure), it will reflect sites where climate exposure and community demand were evident during preparation. Final site-level design and prioritisation are still confirmed through the Output 1.1–1.4 process in year one.

Component 2 provides **Component 2: Developing and piloting prioritized investments within Commune/ Sangkat and district/city development plans to promote sustainable human settlements through the application of Nbs.** Component 2 focuses on targeted, on-the-ground adaptation investments reducing that reduce climate risks risk for vulnerable households in heritage-protected landscapes affected by ecosystem degradation, infrastructure fragility, and water stress. Through through ecosystem restoration and nature-based infrastructure, such as including native reforestation, slope stabilisation, sediment retention, and watershed rehabilitation. These efforts will be combined with climate-resilient improvements to reservoirs reservoir, eco-trail trail, and eco-village infrastructure, the component strengthens upgrades, which strengthen ecological buffers, improves slope stability, and enhances water regulation, reducing exposure to droughts, floods, and variability while generating tourism-linked livelihood co-benefits linked to sustainable tourism. Low-technology, labour-intensive methods are will be prioritised to enable the encourage local participation of local unskilled and semi-skilled workers. Implementation follows community contracting under the People's. CDCs will manage funds through CIAs under the People's Process, with Community Development Councils (CDCs) managing funds through Community Implementation Agreements (CIAs), enabling direct access to climate finance. Procurement prioritises local labour and materials, and communities participate communities involved in site selection, feasibility assessment, construction oversight, and maintenance. Social audits, public disclosure, and oversight by Commune/Sangkat authorities and the Executing Entity will ensure transparency, accountability, and fiduciary compliance. Safeguards, including inclusive inclusive representation, quorum-based decision-making, and a Grievance Redress Mechanism (the GRM), mitigate risks of will help prevent elite capture, and exclusion, and misuse of funds. Investments include ecosystem restoration, climate-resilient infrastructure, climate-smart agriculture, and early warning systems, prioritising low technology, labour-intensive approaches to maximise participation and local economic benefits. Technical support is combined with community leadership to ensure context-appropriate, functional, and sustainable interventions.

Outcome 2: Vulnerable households and communities benefit from improved livelihoods and enhanced resilience through the implementation of nature-based, small-scale infrastructure and adaptive land-use practices aligned with sustainable tourism and agriculture. Outcome 2 ensures that will deliver measurable resilience gains for climate-vulnerable households experience tangible resilience gains through improved by improving ecosystem services, water security, diversified livelihoods, and reduced reducing hazard exposure to climate hazards. By. This will be achieved by combining nature-based infrastructure with climate-resilient livelihood practices, the project reduces sensitivity to droughts, floods, and climate variability. The outcome also supports long-term economic resilience by and strengthening sustainable tourism and climate-smart agriculture. Locally-led adaptation is central, with communities guiding investment priorities and maintaining infrastructure. Community groups will manage locally allocated adaptation resources through Community Implementation Agreements, enabling them to oversee small-scale investments, monitor results, and ensure accountability.

Output 2.1 Climate-smart agriculture and value-addition practices piloted in at least five forest protection communities, supported by market analysis and training. This output was designed to reduce households' dependence on climate-sensitive income by diversifying into resilient, value-added activities with viable market demand. Forest protection communities are engaged because they are the **Output 2.1 (climate-smart agriculture) will engage forest protection communities** and established, locally legitimate resource management institutions managing natural resources in the landscape, and their, **ensuring that** market-oriented activities are designed to reinforce support, rather than compete with their, conservation mandate — value addition is built on sustainably managed forest and agricultural resources, so improved incomes strengthen the incentive to conserve. Climate-smart agriculture will be piloted in at least five forest protection communities to strengthen livelihood resilience and reduce sensitivity to climate variability mandates. At least 1,242 farmers, with a minimum (at least 50 per cent% women,) will receive training be trained in locally appropriate, water-efficient agroecological practices such as, including intercropping, composting, and efficient irrigation systems, including drip and/or treadle-pump technologies irrigation. Demonstration plots will showcase integrated climate, resilient farming and small-scale processing of organic and non-timber products, with crop selection guided by market analysis to enhance economic viability. Lead farmers will act as local resource persons to support facilitate peer-to-peer learning and promote value added.

Strengthening market linkages, land-degradation response, and livestock resilience: To ensure that training leads to sustainable income, buyer relationships with hotels, restaurants, and Siem Reap markets will be mapped for each priority product during planning for Output 1.1/1.2. Each community will establish at least one formal producer-buyer or cooperative marketing strategies. These interventions reduce climate-related risks in agriculture while strengthening household income stability and resilience. Women and youth are prioritised in these value chains to prevent inequitable capture of benefits arrangement. Demonstration plots will include soil conservation practices such as contour farming, cover cropping, and reduced tillage, with 10 initial plots informing training for all 1,242 farmers. Climate-resilient livestock management, including heat-adapted shelter, improved water access, and disease early-warning (linked to Output 2.7), will directly address the climate and gender vulnerabilities identified in Section 5.



Output 2.2 A (regional nursery is fully operationalized to support community-based reforestation and assisted natural regeneration through training, seed propagation, and strategic restoration)

Output 2.2 A regional nursery is fully operationalised to support community-based reforestation and assisted natural regeneration through training, seed propagation, and strategic restoration. A regional nursery in Banteay Srei District will be strengthened to support) will enhance the propagation of native species and ecosystem restoration activities in Banteay Srei District. At least 20 nursery operators and 50 community representatives will receive training on seed collection, propagation, and nursery management. Community be trained, with community members will implement native tree responsible for planting and assisted natural regeneration, thereby improving ecosystem resilience to droughts, floods, and heat stress. These actions stabilise soils, limit erosion, and restore ecological functions, while alignment. Alignment with national initiatives such as the Million Tree Project ensures coherence with broader restoration strategies. Where feasible will ensure consistency with national strategy, and community institutions will be entrusted with management responsibilities, strengthening local ownership and sustainability manage the nursery where feasible.

Restoration scale and species selection: The nursery will aim to produce at least 50,000 seedlings per year, based on an initial demand assessment. Restoration activities under this and related Component 2 outputs will target at least 150 hectares of degraded forest or watershed land. Species selection will be guided by a rapid ecological suitability assessment, prioritising native, climate-resilient, multi-purpose species, conducted jointly with the Forestry Administration and forest protection communities in year one.

Technical oversight and long-term sustainability of Outputs 2.3–2.6:

Community contracting and low-technology construction are complemented by engineering oversight. All physical works will be designed by qualified technical personnel, such as engineers, hydrologists, or restoration specialists, engaged by the Executing Entity. Designs will be reviewed against flood, drought, and heat projections in Section 2 to ensure structures are suitable for current and future hazards. Community Maintenance Committees, established under each CDC and trained under Output 1.2, will manage routine operations and maintenance for their specific assets, with defined schedules and a minimum community contribution established before construction is completed.

Output 2.3 (Banteay Srei reservoir) Output 2.3 Ecological and tourism value of Banteay Srei's reservoir site enhanced through trail rehabilitation, removal of invasive species, and installation of visitor amenities with small-scale solar lanterns at houses and public spaces for safety and minimum economic burdens. The ecological condition and climate resilience of the Banteay Srei reservoir will be enhanced through sediment removal, invasive species control, slope stabilisation, and rehabilitation of approximately 2–2.5 km of eco-trails. Installation of, plus 100 solar lighting lights and visitor amenities will to improve safety and usability while minimising energy costs. These interventions strengthen water regulation, reduce erosion risks, and support



climate-resilient ecotourism. All activities will be, all guided by site-specific technical designs/design and environmental safeguards to ensure long-term sustainability and compatibility with the heritage landscape.

Output 2.4 Water retention and climate buffer capacity increased in (Svay Leu District through sediment clearance, water gate construction, and embankment stabilization. Reservoir rehabilitation in Svay Leu District reservoir) will increase water availability and flood buffering capacity across ~57 hectares in the Prey Phnum Mnas community through sediment clearance, vegetation management, embankment stabilisation, and repair of water-control infrastructure across around 57 hectares in Prey Phnum Mnas community. These measures increase/repair, improving irrigation reliability during dry periods, reduce flood risks, and enhance and water security for farming communities. Strengthened water management systems directly support climate-resilient agriculture and help stabilise livelihoods amid increasing climate variability.



Output 2.5 Eco(eco-villages established or upgraded) will establish or upgrade at least 12 sites using circular resource systems, including renewable energy, food forests, wastewater treatment, and climate-resilient homestays to support sustainable and safe tourism. At least 12 eco-villages will be established or upgraded using circular resource systems, including (renewable energy, decentralised wastewater treatment, food forests, and climate-resilient homestays. Design features such as), with passive cooling, rainwater harvesting, and solar systems will reduce climate exposure and energy costs. These interventions expand and diversify income sources, promote sustainable consumption, and strengthen community-based resource management, contributing to long-term economic resilience and climate adaptation by reducing climate exposure and energy costs.

Output 2.6 Flood-resilient community nature-based infrastructure solutions, including sewerage and eco-wastewater systems, constructed or improved in vulnerable settlements in Closing the loop: What makes the eco-village model circular. The design will integrate wastewater reuse for food forest and homestay irrigation, composting, and small-scale biogas conversion of organic waste to fertiliser and cooking energy. It will prioritise local low-carbon construction materials and include solid-waste recycling linked to Output 2.8. These closed-loop features, rather than renewable energy and homestay upgrades alone, will make the model circular and directly reduce vulnerability to water- and waste-related climate stress.

Output 2.6 (Sangkat Nokor Thom. Nature sewerage/drainage) will improve nature-based wastewater and drainage systems will be improved across over at least 1 km in vulnerable settlements in Sangkat Nokor Thom to manage grey water and greywater, reduce environmental pollution. These systems will protect ecosystems, reduce and flood-related health risks, and improve sanitation conditions. Local labour will be prioritised in construction, prioritising local labour and community contributions will support long-term operation and maintenance. By integrating NbS into sanitation systems, the project reduces climate-related risks while enhancing environmental sustainability to O&M.

Clarifying the NbS/hybrid framing of Output 2.6: This output will combine nature-based elements, such as constructed wetlands and vegetated buffer or infiltration zones, with conventional sewerage infrastructure where nature-based treatment alone cannot meet public health requirements in Sangkat Nokor Thom's higher-density settlements. It is described as nature-based community infrastructure rather than pure NbS to reflect its hybrid design.

Output 2.7 Community-based Early Warning Systems (early warning systems) will be installed and operationalised for floods, droughts, and lightning installed and operationalized in high-risk areas, with community training and local monitoring. Community-based Early Warning Systems for floods, droughts, and lightning will be installed and operationalised in high-risk areas. These systems improve preparedness, protect livelihoods, and reduce improving preparedness and reducing loss and damage from climate hazards. Local, with local stakeholders will be trained in system operation, maintenance, and response protocols, ensuring sustainability and community ownership. By improving access to timely hazard information, the EWS strengthens adaptive decision-making and risk reduction at the community level.

Technology, service providers, and beneficiaries for Output 2.7: Systems will use low-cost sensors, including rain gauges, river-level sensors, and lightning detectors, combined with a community-operated alert protocol distributed via mobile networks, loudspeakers, and trained local monitors. The Cambodia Red Cross and MOWRAM's provincial office will provide calibration, forecast feeds, and monitor training, formalised in year one. All five poor settlements and five forest protection communities are targeted, with at least one trained monitor in each community.

Output 2.8 (solid waste management) will address climate-sensitive waste challenges through segregation, composting, recycling, and awareness training, thereby reducing drainage blockages, flood risks, and public health risks while supporting tourism.

Climate-resilience rationale for waste management and circularity: This approach will operate through three pathways:

- First, hazard mitigation, as uncollected waste blocks drainage and contributes to urban flooding (see Section 2).
- Second, ecosystem service protection, since waste and leachate degrade the watersheds and reservoirs restored under Component 2, so waste management safeguards these investments.
- Third, public health resilience, as composting and recycling reduce vector-breeding conditions that worsen after floods. Circularity, by converting organic waste into compost for Output 2.1's demonstration plots and diverting recyclables from open dumping, transforms a hazard into a productive input and reinforces the project's other investments.

Component 3: Supporting the local stakeholders in replicating the project's best practices through policy recommendations and knowledge sharing initiatives.

Component 3 focuses on scaling will expand locally led adaptation by documenting, disseminating, and integrating lessons, tools, and models into planning and policy systems. Building on Components 1 and 2, it strengthens institutional uptake and creates an enabling environment for replication and long-term sustainability. The People's Process underpins will support adaptive learning, with through community monitoring, social audits, and participatory evaluation generating feedback that informs, informing iterative CAP revisions. via CDC-led review meetings assess progress, reprioritise investments. Results will be reprioritised and revalidate CAPs revalidated through community assemblies and Commune/Sangkat endorsement, ensuring responsive and dynamic planning. To address barriers such as limited access to climate information, low literacy, and fragmented communication, knowledge will be.

Knowledge is translated into accessible, culturally appropriate formats and disseminated shared through community networks, local institutions, institutional, and government channels. This strengthens knowledge flows across governance levels and supports, supporting the mainstreaming of NbS and community-led adaptation within into national strategies strategy, including Cambodia's Cambodia's Environment Strategy 2023–2033. A structured scaling pathway ensures institutionalisation of will turn successful models. Lessons will be translated into guidelines, toolkits, and case studies, disseminated through coordination platforms linking community, sub-national, and national actors. Integration which are incorporated into Commune and District plans embeds approaches within formal systems, while policy and national frameworks through Executing Entity-led policy dialogue led by the Executing Entity and relevant ministries supports adoption into national frameworks.

Outcome 3: Proven models for nature-based, community-led adaptation and sustainable green tourism are documented, disseminated, and adopted for replication and policy integration at sub-national and national levels. Outcome 3 ensures that tested models of nature-based, community-led adaptation and sustainable green tourism do not remain isolated pilot initiatives but are scaled, replicated, and embedded within broader planning and policy frameworks. Through structured knowledge exchange, documentation, and policy engagement, the project promotes institutional learning and evidence-based decision-making across administrative levels. Locally led adaptation remains central to this outcome, as community experiences, innovations, and lessons form the foundation for replication. By linking community-level knowledge generation with sub-national and national policy processes, the outcome strengthens vertical integration of adaptation planning and contributes to the scaling of climate-resilient development approaches in heritage-protected and climate-sensitive landscapes.

Output 3.1 Coordination Institutional arrangements and community knowledge protection: Component 3 will be managed by the Executing Entity, which will coordinate the development of knowledge products with technical input from CDCs, Forest Protection Committees, sub-national authorities, and the Ministry of Environment for policy-related outputs. Community members and institutions will act as co-authors and reviewers, not just sources. Community-generated knowledge, including practices identified through Output 1.1 and Component 2, will be documented with the originating community's free, prior, and informed consent, and attributed by name or institution (unless anonymity is requested) in all published outputs and Output 3.2/3.3 materials. **Validating community knowledge before scaling:** Before findings and practices are used beyond the community, they will be reviewed and confirmed by the originating CDC or Forest Protection Committee. Only community-endorsed content will be included in knowledge products and policy briefs before Component 3 translates it into Output 3.3 guidelines and toolkits. Institutional learning will be sustained through two channels: CDC-led review meetings incorporate validated lessons into CAP and CIP revisions at the community and commune levels, while Output 3.2 policy briefs and Output 3.3 knowledge products carry validated practices into sub-national and national scaling guidance.

Outcome 3 will ensure that proven models for community-led, integrated climate adaptation—including nature-based solutions, resilient infrastructure, and diversified livelihoods—are documented, disseminated, and adopted for replication and policy integration at sub-national and national levels, including within Siem Reap's sustainable green tourism economy.

Output 3.1 will hold coordination meetings, study visits, and capacity-sharing workshops are conducted at district, provincial, and national levels among implementing partners, local tourism businesses, cultural authorities, and community stakeholders. Coordination meetings, study visits, and capacity-sharing workshops are conducted among implementing partners, local tourism businesses, cultural authorities, and community stakeholders. Coordination meetings, study visits, and capacity-sharing workshops will be held at district, provincial, and national levels to facilitate knowledge exchange among implementing partners, local authorities, tourism businesses, cultural institutions, and community stakeholders. These platforms will facilitate the sharing of practical experiences, dissemination of good practices, and strengthening of cross-sectoral coordination, with a communities (target of at least: >30 per cent% women's participation by women to ensure inclusive engagement. Study visits will allow community representatives and local authorities to observe functioning adaptation solutions and assess their applicability in different contexts, while workshops will support), enabling shared learning and joint planning and refinement of climate-resilient tourism routes, visitor management strategies, and ecosystem conservation approaches. This approach strengthens cross-sectoral coordination and supports replication and scaling of locally led adaptation practices.

Output 3.2: Policy briefs and recommendations promoting sustainable tourism are developed and submitted to relevant sub-national and national authorities. Policy briefs and recommendations will draw on project evidence and lessons learned to promote the integration of nature-based solutions NbS and climate-adaptive practices into tourism, land-use, and development planning frameworks. These briefs will identify, identifying policy gaps, institutional constraints, and scaling opportunities for scaling locally led adaptation approaches within existing governance systems. Consultations in consultation with sub-national and national authorities will ensure that recommendations are practical, context-specific, and aligned with existing mandates and policy frameworks. This strengthens policy coherence and supports evidence-based decision-making. This output contributes to the institutionalisation of climate-resilient tourism and ecosystem-based adaptation approaches.

Output 3.3: Knowledge products are produced and disseminated, documenting good practices, lessons learned, and replication strategies. The project will produce bilingual knowledge products (Khmer and English) that translate field-based experience into practical guidance for a range of stakeholders. These will include illustrated case studies, toolkits, and training manuals, and documentation of community-led innovations, tailored for audiences ranging from community members to policymakers. Dissemination will use multiple channels, including documenting community-led innovation, will be disseminated through local media, schools, forest-protection-community networks, and government platforms, to ensure accessibility for (accessible to non-literate and marginalised populations. The Project will also seek the possibility to disseminate knowledge products at a), with potential presentation at global or South-South cooperation knowledge-sharing platforms, such as COPs, COP and other UNFCCC-mandated events, etc. By documenting and disseminating knowledge and making it widely accessible, this output supports evidence-based adaptation planning, strengthens learning across regions, and enables replication of successful models in other ecologically and culturally sensitive areas.

B. Economic, social, and environmental benefits of proposed programme

1. Project Beneficiaries

The project will directly benefit an estimated help about 91,917 individuals 529 people, including 45,790 674 women, and indirectly benefit approximately reach around 376,850 individuals, including 189,577 women, in Krong Siem Reap, Banteay Srei, and Svay Leu districts. At least Among those directly supported, 30- to 50% of direct beneficiaries will be women, 20% will be youth (aged 15- to 30 years), and 5% will be persons/people with disabilities or their caregivers, targeting with a focus on those most affected by climate risks. Indirect beneficiaries include downstream communities benefiting from improved watersheds, local enterprises/businesses, tourism operators, five forest protection communities/groups, 110 Commune Councils, and community-based organisations, all of whom will strengthen/build their capacity/forskills in climate-risk planning and resource management. The project supports the adoption of climate-resilient livelihoods, nature-based infrastructure, ecosystem restoration, and local adaptation. These interventions contribute to efforts support Adaptation Fund indicators, including reduced goals such as reducing climate risk exposure to climate risks, improved, building resilience, and stronger/strengthening institutions.

2. Economic Benefits

The project strengthens economic stability in will help forest-dependent communities become more economically stable and reduces the sensitivity of livelihoods/less vulnerable to climate variability/change. Climate-smart agriculture, agroforestry, farming and soil-water conservation practices adding value to products, as planned in Output 2.1, will help reduce crop losses and stabilise, maintain yields during changing rainfall, protecting food security and, and provide more ways for people to earn income. Alternative livelihoods, such as non-timber forest product processing, climate-resilient horticulture, and ecotourism services, diversify income sources and reduce reliance, with a focus on climate-sensitive activities. The project prioritises women and youth in these value chains. Rehabilitated. Agreements with buyers will make the value chain more efficient and help ensure steady incomes. Fixing reservoirs and water control systems improve (Outputs 2.3 and 2.4) will provide more water availability during the dry periods and reduce flood-related agricultural season and help prevent crop losses. Strengthened producer groups and improved market linkages enhance value chain efficiency and income reliability. Small-scale from floods. Using renewable energy and passive cooling in eco-villages (Output 2.5), plus solar systems and energy-efficient technologies/lighting at the Banteay Srei reservoir (Output 2.3), will lower household expenditure and improve energy access during climate shocks. Collectively, these interventions stabilise incomes, increase costs for families and visitor sites. All these actions will boost productivity, and boost livelihood diversification for target and give households more ways to make a living.

3. Social Benefits

The project improves living conditions for communities affected will improve lives by climate change. It reduces/addressing climate-related pressures on challenges in water, sanitation, and livelihoods. Improved water, sanitation, and hygiene (Better WASH) services and access to clean energy will reduce health risks from floods and droughts. They also lower and save time burdens, especially for women and girls. Participation in restoring ecosystems, so that they can participate more in the economy and ecotourism activities strengthens stewardship of community. Participating in ecosystem restoration and ecotourism will help people care for natural resources. It also supports the transmission of and share local environmental knowledge. Training and disaster preparedness measures enhance community readiness will help communities get ready for climate hazards. These changes are expected to reduce time burdens on women and increase their participation in economic and community activities.

4. Environmental Benefits

The project will restore around at least 150 hectares of damaged forest and watershed land through community reforestation and natural regeneration (Output 2.2), as well as about 57 hectares of degraded forests and watersheds. This action strengthens reservoir and catchment area in Svay Leu district (Output 2.4). These steps will improve ecosystem services that regulate/ manage water flows/flow and reduce/ lower climate risks. Restored vegetation stabilises plants will help keep slopes, reduces stable, stop erosion, and boosts flood-buffering capacity. Reforestation with reduce flooding, while planting native species enhances biodiversity and improves habitat connectivity. This increases long-term ecosystem resilience. Promoting energy-efficient cookstoves and solar will support more wildlife and connect habitats. Solar lighting reduces pressure on forests. It also improves energy access. Strengthened forest monitoring and early alert visitor sites (Output 2.3) and in eco-villages (Output 2.5) will reduce the need for grid or fuel-based energy. Early warning systems support compliance with conservation measures. They also improve (Output 2.7) and the involvement of forest protection communities (Outputs 2.1-2.2) will help with preparedness for climate hazards. These interventions align with Cambodia's sand conservation. These actions support Cambodia's NDC 3.0 and the National Biodiversity

Strategy and Action Plan (NBSAP). They are likely to enhance, and should help keep more water retention, reduce sedimentation, and help in the soil, reduce sediment, and lower flood and drought risks.

5. Gender Equality, Youth Empowerment, and Social Inclusion

Gender equality and social inclusion are key parts of the project's adaptation strategies. Women in rural Cambodia face higher risk from climate vulnerability due to limited access to resources and decision-making processes. Ensuring that 30–50 per cent of participants are women, and supporting women's leadership—including at least 50% women in adaptation planning CDCs and Primary Groups under Component 1 will strengthen their capacity to adjust to climate-related changes. This action reduces gender-differentiated help women adapt and reduce climate risks. Youth will engage in green livelihoods—that affect them differently. Women will also help add gender-responsive actions to local plans. Young people will join green jobs related to project activities, such as maintaining solar energy systems (solar climate-smart farming (Output 2.1), nursery and restoration work (Output 2.2), and guiding eco-tourism and homestays (Outputs 2.3 and 2.5). Training in operations and maintenance, guiding nature-based tours (eco-guiding), and under Output 1.2 will help people keep eco-village and reservoir systems running businesses that can withstand climate impacts (climate-resilient enterprises). This builds long-term capacity, build skills to adapt, and offers alternatives to migration caused by give options besides moving away because of climate change. Persons with disabilities and their caregivers will be included in decision-making processes, given priority in Output 2.1's value chains and training, and benefit from physical accessible infrastructure and services designed for accessibility. A Gender Action Plan, supported by gender-specific data (disaggregated indicators) and a process for addressing complaints, and the project's grievance mechanism, will guide implementation and ensure equity-redress system will help make sure the project is fair. The project supports Sustainable Development Goals (SDGs) 1 (no poverty), 5 (gender equality), 13 (climate action), and 15 (life on land). Mitigation benefits from using, and renewable energy and more efficient technologies are recognised as secondary advantages (co-benefits) technology will also help reduce emissions.

Table 68 Summary of economic, social, and environmental benefits of adopting a gendered approach

Benefit Type	Baseline	Benefits of project actions
Economic	- Households in the project target districts rely heavily on rain-fed agriculture and forest product collection, which are increasingly vulnerable to drought, erratic rainfall, and land degradation. - Women, youth, and other marginalized peoples face constrained livelihood options, limited access to finance, and weak integration into markets. - There is a lack of value chains or training to support diversified, climate-resilient livelihoods.	- The project promotes climate-smart agriculture, NTFP value chains, and eco-tourism, creating sustainable income, supported by market analysis and training. - Women and youth are trained in micro-enterprise and green tourism. - Water storage, eco-trails, and solar systems reduce production and transaction costs, while reducing forest pressure and water shortage. - Improved household incomes and access to assets strengthen financial resilience. - Eco-villages and other ecotourism attractions will be established or upgraded to support sustainable tourism.
Social	- Limited participation of marginal populations in decision-making. - Climate impacts increase water and food insecurity, especially for women and the poor. - Social cohesion is weakened by migration and land tenure conflicts.	- Inclusive local adaptation planning promotes participation of women, youth, and marginalized groups. - Improved access to water, energy, and food - Security enhances community health, cohesion, and well-being. - Training and awareness campaigns build risk knowledge and strengthen institutional trust. - Gender-sensitive and accessible infrastructure reduces social exclusion. - Collection and analysis of updated climate data through EWS.
Environmental	- Forests in heritage-protected areas are degraded due to illegal logging, inappropriate management and maintenance, and unsustainable extraction. - Watersheds are affected by erosion, reduced flow, and biodiversity loss. - Drought events are increasing in frequency and intensity, threatening long-term ecosystem services.	- Forest and watershed restoration in [NUMBER]150 hectares improves biodiversity, soil retention, and water regulation. - Energy-efficient stoves and solar lighting reduce forest pressure and emissions. - Ecosystem-based approaches restore ecological functions. - Nature-based solutions increase landscape-scale resilience. - Less risk of illegal deforestation and forest fire through
Benefits for Women Empowerment, Youth, and Persons with Disabilities		- Direct support for the reactivation or formulation of women-led and youth-led eco-tourism enterprises. - Inclusive training programs targeting of female-headed households (FHHs), youth, and persons with disabilities, including non-literate participants for training, grants, and leadership roles. - Accessible design elements considered for eco-tourism and livelihood infrastructure. - Youth participation in innovation pilot grants and ecosystem restoration and reforestation activities (Output 2.2) and in climate-smart agriculture value chains (Output 2.1). - Encouragement of persons with disabilities to engage in NTFP value chains, eco-crafts, and value-addition activities under Output 2.1, with adapted employment opportunities and accessible training formats.

C. Cost-effectiveness of the proposed programme

The project adopts a cost-effective approach manages costs by prioritising nature-based solutions (NbS) and empowering communities to lead implementation, rather than relying on community-led delivery instead of capital-intensive grey infrastructure. NbS interventions, such as including watershed rehabilitation, reforestation, and eco-based infrastructure, deliver provide multiple co-benefits at lower lifecycle costs, including such as reduced climate risk, livelihood support, and ecosystem restoration at a lower lifecycle cost. Through the People's People's Process, community members communities contract, mobilise and implement works directly, using local labour and materials, and to minimise contractor overheads, thus strengthening ownership and long-term maintenance. Overall, the project maximises adaptation benefits per investment by integrating climate risk reduction, livelihood strengthening, and ecosystem restoration, while institutionalising community. Community leadership is embedded throughout all project stages, from site prioritisation and beneficiary selection to procurement oversight, construction monitoring, and post-completion management, ensuring maximum adaptation benefit per dollar invested.

Cost-effectiveness is achieved by linking Component 1 and Component 2. Component 1's enabling functions enhance Component 2's efficiency in three ways. First, Output 1.1's vulnerability assessments identify high-risk, high-demand sites before design begins, preventing unnecessary design or construction in lower-priority areas. Second, Community Action Plans under Output 1.3 are endorsed before design, reducing the risk of costly late-stage redesigns. Third, capacity building under Output 1.2 enables a lower-cost community contracting model for Component 2, avoiding the need for more expensive external contractor management or increased fiduciary risk. Component 1, representing 12.6% of the budget, is an enabling investment that increases the efficiency of Component 2 beyond its direct outputs.

1. Cost-efficiency through locally led delivery and community contracting

The programme maximises impact per dollar through locally led delivery mechanisms that reduce transaction costs and improve long-term functionality. Through the People's People's Process, communities lead the implementation and maintenance of Nature-based Solutions (NbS, actions that protect, sustainably manage, and restore ecosystems) and small-scale infrastructure. The LLA approach, operationalised through the People's Process, is more cost-effective than contractor-led models because it leverages community labour and local knowledge, and uses locally available materials, thereby maximising resources for direct adaptation benefits. This reduces reliance, reducing dependence on external contractors and lowers lowering mobilisation, supervision, and administrative costs, while strengthening local ownership and technical familiarity. Community Implementation Agreements (CIAs, formal arrangements that outline community roles and funding rules) provide ensure predictable financing for community organisations. Priority, with priority actions are identified through Community Action Planning, where communities determine interventions. Communities are trained receive training in financial management, procurement, and reporting prior to before implementation. Disbursement is tranche, and disbursements are made in tranches based and linked to on verified progress, supported by mentoring and public disclosure. Involvement of Commune Councils, district administrations, and Community Protected Area (CPA) committees embeds operational and maintenance (integrates O&M) responsibilities into governance systems, reducing lifecycle costs and the risk of asset failure.

Direct contracting with community groups is expected to reduce net transaction costs, provided the fiduciary capacitation pathway is followed as planned. Community contracting eliminates contractor mark-ups, mobilisation, and profit margins, which are often significant in rural Cambodia, and these savings generally outweigh the additional cost of safeguards except for the smallest subprojects. Safeguards are budgeted: Output 1.2 funds fiduciary training and independent assessments that CDCs must complete before managing funds. If a CDC has not yet met these requirements, the Executing Entity provides direct financial management support for its first subproject. Milestone-based disbursement, dual-signatory accounts, quarterly reporting, and spot-check audits help prevent financial mismanagement. For subprojects that exceed a CDC's capacity, such as larger engineered works under Outputs 2.3–2.6, the Executing Entity procures directly. Community contracting is therefore applied selectively, only where it is demonstrably more efficient.

2. Cost-effectiveness through NbS and low-maintenance solutions

The programme prioritises nature-based solutions (NbS) and locally maintainable technologies that reduce climate risks at a lower cost than conventional options. Interventions, such as assisted natural regeneration, reforestation, slope stabilisation, and watershed rehabilitation, provide offer multiple protective functions benefits, including flood attenuation, erosion control, improved soil moisture, and water regulation, sediment retention, vegetated buffers, and microclimate regulation. These functions enhance resilience, require, while requiring minimal long-term maintenance, and remain locally maintainable. When communities require, Where infrastructure, they is necessary, communities design solutions for durability, local repairability, and community-led maintenance. Based on the upkeep. According to UN-Habitat's past experiences, the UN-Habitat's People's Process make interventions cheaper than the conventional approach, approximately Habitat's experience, the People's Process delivers about 20% more value for money.¹¹³ NbS also lowers long-term maintenance costs than conventional approaches.

3. Strategic allocation to high-impact investments

Resources are focused on allocated to interventions that create with measurable resilience benefits. High, avoiding high-cost, hard-to-maintain options are avoided. About Approximately 68.6 per cent% of the budget goes is dedicated to physical and ecosystem-based investments. These are, supported by essential soft measures like such as planning, training, and institutional strengthening.

¹¹³ https://fukuoka.unhabitat.org/wp-content/themes/habitat/pdf/Habitat_PP.pdf

This ensures to ensure sustained functionality. Sourcing Using local materials and labour locally reduces costs. It also generates employment, creates jobs, and strengthens builds local capacity.

4. Transparent unit-cost approach

Cost-effectiveness is measured by using a conservative unit-cost metric (cost per direct beneficiary). This allows, enabling comparison across interventions and supports efficient investment prioritisation. Indirect beneficiaries are excluded from the cost denominator, ensuring a conservative result. Actual calculation, so actual cost-effectiveness is expected to be likely higher. Several than reported. Some interventions generate provide indirect benefits that this metric does not capture. Examples include, such as downstream households benefiting from watershed management and communities benefiting from reduced climate risks, which are not captured by this metric. Estimates will be refined during full proposal development, based on detailed design and beneficiary mapping.

5. Avoided losses and long-term savings

Without the programme, target districts would face more continue to experience losses from drought, flooding, erosion, and ecosystem degradation. This would lead to repeated, resulting in recurring repair and recovery costs. Strengthening water retention, stabilising slopes, restoring vegetation, and improving drainage and wastewater systems help prevent these outcomes. Operationalising, and installing early warning systems also reduces the frequency and severity of climate-related losses. These preventive investments are prevent these issues more cost-effective effectively than reactive responses. They lower spending on post-disaster recovery, infrastructure repair, and asset replacement. Avoided costs include, leading to reduced flood damage, less lower sedimentation and maintenance, improved drainage performance needs, and lower decreased emergency response expenses and asset replacement costs.

6. Replicability and reduced future costs

The programme reduces lowers future adaptation costs by documenting tested and standardising proven approaches and enabling for replication. Standardised. All assets will be included in local operations and maintenance (O&M) systems. Commune Councils, Community Protected Area (CPA) committees, and sub-national authorities will take on assume maintenance responsibilities. They will also include and integrate climate budgeting, the allocation of resources to address climate impacts, in into planning tools. Locally appropriate finance financing, such as eco-tourism ecotourism revenue, community contributions, and cost-sharing, will support operations O&M and maintenance. This ensures ensure long-term functionality and value. Councils, CPA committees, and sub-national authorities will take on maintenance responsibilities. They will also include climate budgeting in planning tools. Locally appropriate finance, such as eco-tourism revenue, community contributions, and cost-sharing will support O&M. This ensures long-term functionality and value.

Table 79 Beneficiaries and dimensions of the outputs (preliminary estimate)

Output	District	Estimated beneficiaries			Estimated cost (B)	Cost-effectiveness of direct beneficiaries (B/A)
		Direct (A)	Direct beneficiary overlap between activities	Indirect		
Output 1.1	Krong Siem Reap, Banteay Srei, and Svay Leu districts	388 (Women: 116)	Unique beneficiaries without overlap: 388 (116)	376,850 (Women: 189,577)	US\$ 96,000	247.42
Output 1.2		388 (Women: 116)	388 (116) participants overlapped (Output 1.1) 388 (116) participants overlapped (Output 1.1)	376,850 (Women: 189,577)	US\$ 85,116,000	219.07298.97
Output 1.3		388 (Women: 116)	Unique beneficiaries without overlap: 2,476 (1,224)	5,582 (Women: 2,763)	US\$ 116,70,000	298.9728.27
Output 1.4		2,476 (Women: 1,224)	388 (116) participants overlapped (Outputs 1-Output 1) Unique beneficiaries without overlap: 2,476 (1,224)	5,582 (Women: 2,763)	US\$ 95,110,000	38.3744.43
Output 2.1-5		2,200-476 (Women: 1,100-224)	388 (116) participants overlapped (Outputs 1-Output 1) Unique beneficiaries without overlap: 2,476 (1,224)	5,582 (Women: 2,763)	US\$ 188,541,000	85.45218.50
Output 2.42	Banteay Srei district	2,476 (Women: 1,224)	2,476 (1,224) trainees overlapped (Output 1-4) Unique beneficiaries without overlap: 70 (35)	376,850 (Women: 189,577)	US\$ 541,250,000	218.503,571.43
Output 2.23	Banteay Srei district	70 (Women: 35)	Unique beneficiaries without overlap: 70 (35)	49,520 (Women: 25,049)	US\$ 250,450,000	44.343,571.43

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Output 2.34	Banteay Srei Svay Leu district	10,148 5,582 (Women: 5,186) 2,763	Unique beneficiaries without overlap: 10,148 (Women: 5,186) 2,763	51,072 49,520 (Women: 25,049) 564	US\$ 450,699.00	125.22 44.34
Output 2.45	Krong Siem Reap, Banteay Srei and Svay Leu districts	2,476 5,582 (Women: 2,763) 1,224	Unique beneficiaries without overlap: 5,582 (2,763) 2,476 (1,224) trainees overlapped (Output 1.3)	376,850 51,072 (Women: 25,564) 189,577	US\$ 699,560.00	125.22 226.17
Output 2.56	Krong Siem Reap, Banteay Srei and Svay Leu districts	14,478 2,476 (Women: 1,224) 7,152	2,476 (1,224) trainees overlapped (Output 1.4) Unique beneficiaries without overlap: 14,478 (7,152)	276,258 376,850 (Women: 189,577) 138,964	US\$ 560,510.00	44.36 35.23
Output 2.67	Krong Siem Reap	39,199 14,478 (Women: 7,152) 24,721	14,478 (7,152) beneficiaries overlapped (Output 2.6) Unique beneficiaries without overlap: 14,478 (7,152) 24,721 (12,446)	276,258 (Women: 138,964)	US\$ 540,150.00	35.23 3.83
Output 2.78	Krong Siem Reap, Banteay Srei, and Svay Leu districts	2,200 39,199 (Women: 19,598) 1,100	14,478 (7,152) beneficiaries overlapped (Output 2.6) Unique beneficiaries without overlap: 24,723 (12,446) 812 (984)	376,850 276,258 (Women: 138,964) 189,577	US\$ 450,188.00	3.83 85.45
Output 3.1	Krong Siem Reap, Banteay Srei, and Svay Leu districts	500 (Women: 250)	388 (116) participants overlapped (Output 1.1) Unique beneficiaries without overlap: 112 (141) 34	376,850 (Women: 189,577)	US\$ 205,000	410.00
Output 3.2		500 (Women: 250)	500 (250) participants overlapped (Output 3.1)	376,850 (Women: 189,577)	US\$ 156,000	312.00
Output 3.3		500 (Women: 250)		376,850 (Women: 189,577)	US\$ 107,000	214.00
TOTAL	3 districts	91,917 83,857* (Women: 45,790) 41,712*	59,399 787** (Women: 29,924) 430,040	376,850*** (Women: 189,577)	US\$ 4,208,000	45.78 50.19

* Total number of direct beneficiaries includes duplicated beneficiaries.

** Direct beneficiaries without overlapped populations

*** Total population of three target city/districts

Table 8 Cost-Effectiveness Criteria Output 2.2's cost per direct beneficiary (US\$3,571.43) is higher than the project average (US\$50.19) because the direct-beneficiary count in Table 9 reflects only the 70 nursery operators and community representatives trained, not the broader group benefiting from the nursery's output. The same US\$250,000 funds the regional nursery and seedling production, targeting at least 50,000 seedlings per year and supporting a minimum of 150 hectares of restoration. The ecosystem-service benefits extend to Output 2.2's indirect-beneficiary estimate of 376,850 people. When measured as cost per hectare restored, Output 2.2 is approximately US\$1,667/ha (US\$250,000/150 ha), consistent with Output 2.1's restoration cost. The nursery is essential for meeting Outputs 2.1–2.2 targets, as sourcing over 50,000 climate-appropriate native seedlings annually from external nurseries would be more expensive and would not build local propagation capacity for future restoration. This US\$1,667/ha also compares favourably to a regional benchmark: a carbon-finance cost review of five Southeast Asian countries found Cambodia's average reforestation/restoration cost to be the lowest at approximately US\$2,066/ha, which is higher than this project's figure.

Table 10 Cost-Effectiveness Criteria

Proposed Action	Cost Effectiveness Criteria		Alternative Action	Cost Effectiveness Criteria	
Strengthening institutional and governance capacities for climate change adaptation through socio-economic and climate vulnerability assessments.	Future cost of climate change	✓	* Continued failure to integrate climate risks into governance and planning processes	Future cost of climate change	✓
	Project efficiency	✓		Project efficiency	X
	Community involvement	✓		Community involvement	X
	Cost/Feasibility	✓		Cost/Feasibility	x
	Environmental and social safeguarding risks	✓		Environmental and social safeguarding risks	Higher risks
Climate-smart and market-oriented agriculture and	Future cost of climate change	✓	* Continue traditional rain-fed farming	Future cost of climate change	✓
	Project efficiency	✓		Project efficiency	X
	Community involvement	✓		Community involvement	X

NTPP-based livelihoods in heritage-protected areas.	Cost/Feasibility	✓	* Heavy reliance on forest extraction	Cost/Feasibility	x
	Environmental and social safeguarding risks	✓		Environmental and social safeguarding risks	Higher risks
Restoration of degraded forest and watershed using nature-based solutions and community planting.	Future cost of climate change	✓	* Engineered reforestation by external contractors * Expansion of concrete structures for slope control	Future cost of climate change	✓
	Project efficiency	✓		Project efficiency	X
	Community involvement	✓		Community involvement	X
	Cost/Feasibility	✓		Cost/Feasibility	X
	Environmental and social safeguarding risks	✓		Environmental and social safeguarding risks	Higher risks
Construction of village-level water storage reservoirs, eco-trails, and erosion control using vegetative techniques.	Future cost of climate change	✓	* Build centralized piped infrastructure * Import concrete-based erosion barriers	Future cost of climate change	✓
	Project efficiency	✓		Project efficiency	x
	Community involvement	✓		Community involvement	X
	Cost/Feasibility	✓		Cost/Feasibility	X
	Environmental and social safeguarding risks	✓		Environmental and social safeguarding risks	Higher risks
Installation of community-based early warning systems in high-risk areas.	Future cost of climate change	✓	* No or limited climate data for disaster preparedness and planning.	Future cost of climate change	N/A
	Project efficiency	✓		Project efficiency	N/A
	Community involvement	✓		Community involvement	N/A
	Cost/Feasibility	✓		Cost/Feasibility	N/A
	Environmental and social safeguarding risks	✓		Environmental and social safeguarding risks	N/A
Training and inclusive planning for local adaptation (communes, forest protection communities, women/youth leaders).	Future cost of climate change		* Rely only on technical experts and external facilitators	Future cost of climate change	N/A
	Project efficiency	✓		Project efficiency	N/A
	Community involvement	✓		Community involvement	N/A
	Cost/Feasibility	✓		Cost/Feasibility	N/A
	Environmental and social safeguarding risks	✓		Environmental and social safeguarding risks	N/A

Cost-effectiveness of non-NBS and hybrid interventions

Table 11 applies the same alternative-comparison logic to the project's non-NBS and hybrid investments, including resilient infrastructure, sustainable agriculture value chains, circular or eco-village solutions, and knowledge or policy support, covering the full investment scope. The main driver of cost-effectiveness is integration: each investment delivers multiple benefits, such as sanitation and flood reduction or livelihoods and ecosystem restoration, from a single budget line. This approach is more cost-effective than funding single-purpose sectoral alternatives separately, even if a sectoral alternative has a lower unit cost in isolation

Table 11 Cost-effectiveness of non-NBS and hybrid interventions

Intervention (non-NBS or hybrid)	Alternative approach considered	Why this approach is more cost-effective
Eco-village circular systems (Output 2.5)	Conventional single-purpose tourism/housing upgrades: grid power, externally sourced materials, no wastewater reuse	Combines livelihood, energy, and sanitation benefits in one investment; renewable energy and local materials avoid recurring grid/fuel costs; avoids funding separate single-purpose projects for energy, wastewater, and tourism upgrades
Flood-resilient sewerage / eco-wastewater (Output 2.6)	Fully engineered conventional sewerage extended across all vulnerable settlements	Hybrid nature-based/engineered design (see Output 2.6 revision under Criterion 2) reduces construction, energy, and maintenance costs relative to full conventional extension while still meeting public-health requirements in higher-density areas
Climate-smart agriculture & value chains (Output 2.1)	External extension services or commercial input-supply/advisory models	Embeds training and market linkages in existing community structures at no recurring extension-service cost; demonstration plots enable farmer-to-farmer scaling instead of paying per-farmer external technical assistance
Solid waste management (Output 2.8)	Centralized municipal collection and disposal	Community-led segregation, composting, and recycling avoids the capital cost of centralized collection infrastructure in dispersed rural/peri-urban settlements, while directly reducing flood risk (see the Output 2.8 climate-resilience rationale under Criterion 2)
Knowledge management & policy support (Component 3)	Stand-alone consultancy-led studies and knowledge products	Embeds knowledge generation in implementation: Output 1.1-1.4 assessments and Component 2 experience feed directly into Output 3.3 products instead of commissioning separate studies; policy engagement uses existing government coordination platforms

Unit-cost benchmarking against comparable projects

This proposal's overall cost-effectiveness metric (US\$50.19 per direct beneficiary, Table 9) and its component-level range (US\$3.83–3,571.43) are benchmarked against three comparable projects (Table 12). The Cambodia protected-areas project (UNEP/MoE, 2012–2021) provided a US\$4.9 million grant, similar in scale to this project's US\$4,999,420 request, restoring 4,798 hectares and planting over 902,364 trees, which aligns with this proposal's Output 2.1–2.2 targets. The AF/UN-Habitat Kampot and Koh Kong project, the closest institutional precedent due to the same Implementing/Executing Entity partnership, received a US\$10

million grant for a comparable multi-component structure, about double this project's budget, indicating this request is conservative. The coastal-settlements project (UN-Habitat/NCSD, 2021–2025) received a US\$5,000,000 grant, delivering 62,521 direct beneficiaries at approximately US\$80 per direct beneficiary, using the same calculation as Table 9. With the same Implementing Entity and a similar grant size, this project's US\$50.19 average compares favourably. Within Table 9, the unit-cost range aligns with intervention type: capacity-building and planning outputs (1.1–1.2) are US\$220–300 per direct beneficiary due to smaller-group delivery; Outputs 1.3–1.4 are lower because they involve broader community assemblies; and larger-scale infrastructure outputs (2.6, 2.7) are below US\$45, reflecting greater reach per dollar spent.

Table 12 Unit-cost benchmarking against comparable AF/UN-Habitat and Cambodia forest-restoration projects

Comparator project	Grant amount / Implementing Entity	Direct beneficiaries / scale	Unit cost
This proposal (Siem Reap)	US\$4,999,420; UN-Habitat (IE) / MoE (EE)	83,857 direct (duplicated basis); 59,787 unique	US\$50.19 (duplicated basis, Table 9)
Cambodia protected-areas project (UNEP/MoE, 2012–2021)	US\$4.9 million; UNEP (IE)	4,798 ha forest/mangrove restored (area-based, not beneficiary-based)	~US\$1,021 per ha restored
Kampot & Koh Kong (AF/UN-Habitat, 2024–2028)	US\$10 million; UN-Habitat (IE) / MoE (EE)	Not publicly reported at concept stage	Not yet available
Coastal settlements, Kep & Preah Sihanouk (UN-Habitat/NCSD, 2021–2025)	US\$5,000,000; UN-Habitat (IE) / NCSD (EE)	62,521 direct (28,021 Kep + 34,500 Prey Nob)	~US\$80 per direct beneficiary

Sources: Adaptation Fund project database (project pages for AF00000114 and the Kampot/Koh Kong and Cambodia protected-areas projects); Hamerkop, "Carbon Finance for NbS in Southeast Asia" (regional per-hectare reforestation benchmark, cited under Output 2.2).

D. Consistency with national or sub-national development programmes

The proposed climate adaptation project in Krong Siem Reap, Banteay Srei, and Svay Leu districts of Siem Reap Province is strongly aligned with Cambodia's national and sub-national climate and development frameworks. The project translates national policy commitments on climate resilience, biodiversity protection, and sustainable livelihoods into concrete, locally led adaptation actions. These actions directly address community-identified climate risks, including droughts, rainfall variability, and ecosystem degradation. The project also ensures consistency with national resilience pathways.

1. Alignment with National Development Vision and Local Initiatives

The project contributes directly to support the Rectangular Strategy Phase IV (2023–2028) and the long-term Cambodia Vision 2050. It focuses especially on the pillars of by promoting inclusive and sustainable development, governance reform, and rural transformation. The project supports key government priorities, including advancing human capital development, climate-resilient infrastructure, private-sector-driven green livelihoods driven by the private sector, and environmental sustainability. Its focus is on eco-trails, local ecotourism services, and inclusive business opportunities for forest-edge communities. The project supports the Ministry of Environment's Green Destination Framework. This framework seeks to link approach links biodiversity protection with sustainable income generation through ecotourism, accommodation, handicrafts, and nature-based services. By integrating, ensuring adaptation measures within are grounded in national frameworks, the project reinforces national resilience priorities and embeds adaptation within ongoing development processes. This alignment also helps ensure that proposed measures avoid maladaptation and remain consistent with national climate resilience pathways.

2. Alignment with National Climate Policy and Adaptation Planning

The project directly supports the vision and strategic objectives of the Cambodia Climate Change Strategic Plan (CCCSP) 2024–2033, which aims to achieve its vision of "carbon neutrality and climate resilience through inclusive and sustainable development." Specifically, the project contributes to:

- Strategic Objective 1 — Promoting low-emission development via forest restoration and NTFP-based livelihoods.
 - to Strategic Objective 2 — Strengthening adaptive capacity through climate-resilient infrastructure, water systems, and nature-based solutions.
 - and to Strategic Objective 3 — Promoting good governance via strengthened CPA committees and climate-integrated commune planning.
- The proposed interventions project also supports Cambodia's Updated Nationally Determined Contribution NDC (NDC 3.0, 2024) by contributing to:
- Sustainable forest management (in the FOLU sector);
 - Ecosystem, ecosystem-based adaptation (EbA);
 - Gender, gender-responsive; locally led planning,
 - Nature and nature-based solutions for water and land resilience.

This ensures consistency with Cambodia's national adaptation priorities and reinforces the Adaptation Fund's objective of supporting country-driven adaptation. Relevant sub-national authorities, such as, with Commune Councils, district administrations, and sectoral agencies, will be responsible for incorporating and implementing these priorities within their mandates. The project is also consistent with Cambodia's national poverty reduction strategy, national communications to the UNFCCC, and its NAPA/NAP adaptation planning processes, as discussed below.

Consistency with national poverty reduction strategy. Cambodia's National Strategic Development Plan 2024–2028 identifies economic growth and poverty reduction as core priorities and acknowledges that unmanaged climate risk threatens these goals. The project aligns with this strategy. Component 2's livelihood investments—including climate-smart agriculture, forest and NTFP-based livelihoods, ecotourism, and eco-village enterprises—directly target rural, forest-edge, climate-exposed communities identified in Section A as facing disproportionate poverty risk. The project pursues adaptation and poverty reduction as integrated objectives.

Consistency with national communications to the UNFCCC. The project aligns with the priority vulnerabilities Cambodia reported to the UNFCCC in its Initial (2002) and Third (2022) National Communications, which identify agriculture, water resources, forestry, and human settlements as climate-vulnerable sectors. By focusing on water-resource resilience, forest and watershed restoration, and climate-smart agriculture, the project directly addresses these priorities. Its results will inform Cambodia's future national communications.

Consistency with the NAPA/NAP process. Cambodia completed its National Adaptation Programme of Action (NAPA) in 2006 and submitted its NAP, the CCCSP 2014–2023, to the UNFCCC on 7 July 2021. The Ministry of Environment is now leading a revised NAP through a new National Strategic Plan on Climate Change, supported by UNDP's SCALA programme. The project complements both the existing and revised NAP. Its climate risk profiling and community-prioritised planning (Outputs 1.1–1.3) generate local-level adaptation evidence for national scaling. Component 3's policy engagement will share this evidence with the Ministry of Environment to support integration into the revised NAP.

3. Compliance with Forestry, Environmental, and Protected Area Frameworks
The project complies with the Protected Areas Law (2008) and aligns with the National Forest Programme (2010–2029), particularly its objectives on participatory forest governance, forest landscape restoration, and sustainable NTFP value chains. This supports the programme's goal of inclusive, community-led forest management. These frameworks provide the regulatory and institutional basis for implementing ecosystem-based adaptation and community-led forest restoration in a legally secure and policy-supported way.

4. Support for National and Sub-National Planning Frameworks
The project establishes vertical integration by linking community-level priorities to Commune Development Plans (CDPs), Commune Investment Plans (CIPs), and District/City Development Plans, ensuring adaptation investments are institutionalised within public planning and budget allocation systems. By integrating adaptation into these instruments, actions are planned and financed through established local budgeting processes, supporting continuity beyond the project lifecycle. The project strengthens institutional anchoring and sub-national ownership of climate adaptation goals, building the capacity of commune councils and Community Protected Area (CPA) committees to mainstream climate risks. At the sub-national level, it builds the capacity of Commune Councils and CPA committees to mainstream climate risk and strengthens sub-national ownership. The project also aligns with the Siem Reap Tourism Development Master Plan (2021–2035), promoting nature-based, low-carbon tourism development and climate-resilient infrastructure in heritage and tourism corridors, further integrating adaptation within broader development priorities.

The three project components align with specific sub-national planning and budgeting instruments. Component 1 strengthens Commune/Sangkat and district planning by integrating climate risk, nature-based solutions (NbS), and community priorities into CDPs, CIPs, and DDPs. Component 2 aligns with protected area management plans, community forestry and CPA operational plans, and green tourism strategies, embedding ecosystem restoration, infrastructure, and livelihood investments within sectoral and territorial frameworks. Component 3 supports policy learning, knowledge management, and replication by linking community-level evidence to higher-level policy processes, enabling for institutional uptake and scaling. These alignments ensure that adaptation priorities identified through Community Action Planning are formally integrated into annual Commune/Sangkat budgets, district investment programming, and sectoral financing mechanisms. This enables adaptation priorities to be financed through recurrent local budgeting cycles, ensuring sustained, lasting implementation beyond the project period through ongoing local budgeting cycles.

Operationalising CDP/CIP/DDP integration under Component 1
The integration of climate risk, nature-based solutions, and community priorities into CDPs, CIPs, and DDPs follows a defined sequence of steps, actors, and responsibilities (Table 13), rather than a general commitment to alignment. The process begins with community-level evidence generation and prioritisation (Steps 1–2), followed by validation and formal adoption through existing commune governance structures (Step 3). These priorities are then incorporated into statutory planning instruments through the established annual CIP/CDP and multi-year DDP cycles used by Commune Councils and District Administrations (Steps 4–5). The Ministry of Environment and the Project Management Unit provide climate-alignment quality assurance, not approval authority (Step 6). The process is reviewed annually (Step 7), relies on existing government procedures, and is designed to continue after the project period.

Table 13 Institutional arrangements for integrating climate risk, NbS, and community priorities into CDPs, CIPs, and DDPs under Component 1

Step	Process	Responsible actor(s)	Instrument / output
1	Participatory climate risk assessment and NbS option identification at community level	CDCs and Primary Groups, facilitated by Executing Entity field teams	Climate risk profiles, green tourism maps (Output 1.1)

2	Community Action Plan (CAP) formulation, prioritising climate risk, NbS, and community priorities	CDCs and Primary Groups through the People's Process	Draft CAP (Output 1.3)
3	Technical review and formal endorsement of the CAP	Commune/Sangkat Council (with CPA committee input on protected-area-relevant priorities)	Council-endorsed CAP
4	Integration of endorsed CAP priorities into the annual Commune Investment Plan and Commune Development Plan update	Commune Council Planning and Budget Committee, supported by Output 1.2 capacity-building	Updated CIP/CDP with adaptation line items
5	Aggregation of commune-level priorities into the District/City Development Plan	District Administration / District Integration Working Group, following Ministry of Interior D&D planning procedures	Updated DDP
6	Climate-alignment quality assurance	Provincial Department of Environment and the Project Management Unit	Confirmation that CDP/CIP/DDP entries reflect climate risk and NbS evidence
7	Annual monitoring and review, feeding the next CAP cycle	CDCs, Commune Councils, and Component 3 M&E	Review report and revised CAP for the following planning cycle

5. Contribution to Sustainable Development Goals (SDGs)

While the Adaptation Fund focuses on climate resilience, the project generates development co-benefits aligned with the SDGs. ~~The proposed project advances, advancing Cambodia's 2030 Agenda commitments to the 2030 Agenda through targeted SDG contributions, including as follows:~~

Table 914 Project alignment with SDGs

Project Element	Aligned SDGs
Diversified, resilient rural livelihoods (Output 2.1)	SDG 1 – No Poverty; SDG 2 – Zero Hunger; SDG 8 – Decent Work
Women and youth engagement in value chains	SDG 5 – Gender Equality; SDG 10 – Reduced Inequalities
Climate-resilient water infrastructure (Outputs 2.3, 2.4, and 2.6)	SDG 6 – Clean Water and Sanitation; SDG 13 – Climate Action
A regional nursery operation and forest restoration (Outputs 2.2)	SDG 15 – Life on Land; SDG 12 – Responsible Consumption
Eco-village establishment and early warning system installation (Outputs 2.5 and 2.7)	SDG 7 – Affordable and Clean Energy; SDG 8 – Decent Work; SDG 13 – Climate Action
Local climate governance and institutional capacity (Component 1)	SDG 16 – Peace, Justice and Institutions; SDG 13
Renewable energy and clean technologies (Component 2)	SDG 7 – Affordable and Clean Energy

Table 4015 Key Government policies/strategies/plans adopted in the project

National Policy / Responsible Agency	Proposed Project Elements Consistent with Policy
Cambodia Climate Change Strategic Plan (CCCSP) 2024–2033 – Ministry of Environment	Supports CCCSP Strategic Objectives 1, 2 and 3 by integrating sustainable agriculture, water systems, and institutional capacity building into local climate adaptation measures.
Updated Nationally Determined Contributions (NDC 2020 and inputs to NDC 3.0) – Ministry of Environment	Restores 57 hectares of forest, strengthens commune-level climate governance, and promotes inclusive adaptation – aligned with FOLU targets and adaptation priorities in NDC 2020 and 3.0.
National Forest Programme 2010–2029 – Forestry Administration	Promotes participatory forest governance, landscape restoration, and non-timber forest product (NTFP) value chains in support of community-based forest management.
Commune Development Plans and Investment Plans – Ministry of Planning and Sub-national Authorities	Mainstream adaptation into local planning and budgeting frameworks (CDPs/CIPs), promoting vertical coherence and local implementation of national priorities.

Table 4416 Key Laws, Policies, and Knowledge Resources Related to Protected Areas and Community Forestry in Cambodia

Policy / Publication Title	Type	Lead Institution/ Authors	Relevance to Project
Protected Areas Law (2008)	National Law	Royal Government of Cambodia	Establishes a legal framework for forest protection, community governance, zoning, and biodiversity protection.
Law on the Protection of Cultural Heritage (1996)	National Law	Royal Government of Cambodia	Protects national cultural heritage against destruction, alteration, illegal excavation, export/import, and other threats.
Royal Decree on Zoning and Management of the Siem Reap-Angkor Region (1994)	National Law	Royal Government of Cambodia	Establishes the protected zone framework for the Angkor area, defining multiple zones with varying levels of protection and regulatory control essential for heritage safeguarding.

Law on Forestry (2002)	National Law	Royal Government of Cambodia	Governs forest management, use, conservation, and development across Cambodia and provides the legal basis for community forestry
Siem Reap Tourism Development Master Plan (2021–2035)	Provincial Master Plan	Royal Government of Cambodia	Promote nature-based, low-carbon tourism development and climate-resilient infrastructure in heritage and tourism corridors.
National Forest Programme (2009)	Policy Framework	Forestry Administration	Provides long-term direction for forest sector reform, including community forestry. Ensures alignment of forest protection, community-based restoration and livelihood components.
Community Forestry Sub-Decree (2003)	Sub-national Regulation	Forestry Administration	Guides legal registration and governance of Community Forests (CFs) relevant for supporting forest protection, community structure and co-management mechanisms.
REDD+ and Cambodia: Engaging Community Views (2013)	Policy Brief	Civil Society Coalition	Highlights the role of community voices in REDD+, aligns with the project's inclusive planning and carbon co-benefits.
Market and Non-Market Costs of REDD+ (2011)	Research Study	Caravani & Graham	Offers insights into community trade-offs and perceptions in forest protection schemes, useful for risk-benefit analysis.
Cambodia: Forest Conflict Assessment (2004)	Conflict Study	Schweithelm & Chanthy	Provides a cautionary lens on unresolved tenure or enforcement gaps, useful for risk mitigation in forest protection communities' governance.

E. Compliance with relevant technical standards and policies

1- The proposed project in ~~Siem Reap's~~ Krong Siem Reap, Banteay Srei, and Svay Leu districts ~~is expected to will~~ comply with Cambodia's national technical standards, sectoral laws, and environmental regulations. It will also align with the Adaptation Fund's Environmental and Social Policy (ESP). ~~The project integrates), integrating~~ climate adaptation with environmentally sound sustainable infrastructure, ecosystem restoration, and inclusive development. ~~All interventions are designed to be technically robust, legally compliant, socially inclusive, and environmentally sustainable. The project will comply with the following key technical standards and approval domains:~~

- ~~Environmental~~ Key compliance areas include: environmental and social screening and management, ~~including (IEE/ESIA and Environmental and Social Management Plans (ESMPs) in accordance with, as required by~~ national regulations and Adaptation Fund's ESP requirements;
 - ~~Water);~~ water and wastewater infrastructure design approvals ~~in line with the Ministry of Water Resources and Meteorology (MOWRAM) and rural WASH technical standards;~~
 - ~~Eco);~~ eco-trail, slope stabilisation, and small infrastructure siting and design ~~standards guided by (MRD and MLMUPC technical guidelines;~~
 - ~~Protected);~~ protected area, biodiversity, and heritage-related approvals, ~~including (Angkor zoning compliance within Angkor protected areas and, coordination with GDANCP and APSARA Authority where applicable;~~
- ~~Local); and local~~ land-use, construction, and development permissions ~~issued by (Commune/Sangkat and district authorities.)~~

i. Environmental and Legal Safeguards

All physical and land-based interventions, ~~such as a reservoir (reservoirs, eco-trails, and eco-villages.)~~ will be screened under the Law on Environmental Protection and Natural Resource Management (1996) and the Sub-Decree on Environmental Impact Assessment (1999). ~~Depending on the nature and scale of activities, Initial Environmental Examinations (IEEs) or Environmental and Social Impact Assessments (ESIAs) will be conducted in consultation with the Ministry of Environment (MoE), with IEEs or ESIAs conducted in consultation with MoE, as appropriate to the scale and nature of the activities. For activities within or adjacent to Angkor's heritage-protected areas, the project will adhere to the Law on the Protection of Cultural Heritage (1996), the Royal Decree on Zoning and Management of the Siem Reap-Angkor Region (1994), and the Protected Areas Law (2008), coordinating closely with GDANCP (MoE) on biodiversity conservation, zoning, and protected-area management. Ecosystem restoration activities (native tree planting and the regional nursery) will follow the Forestry Law (2002), ensuring that community co-management of natural resources is legally grounded and ecologically appropriate.~~

~~For project activities within or adjacent to heritage-protected areas within Angkor Archaeological areas, the project will adhere to the Law on the Protection of Cultural Heritage (1996), Royal Decree on Zoning and Management of the Siem Reap-Angkor Region (1994), and Protected Areas Law (2008), while coordinating closely with the General Department of Administration for Nature Conservation and Protection (GDANCP) under Ministry of Environment to ensure alignment with biodiversity conservation goals, zoning regulations, and protected area management plans. In addition, the project will follow the Forestry Law (2002) for ecosystem restoration activities, including native tree planting and strengthening a regional nursery. This ensures that community co-management of natural resources is both legally grounded and ecologically appropriate.~~

ii. Technical Compliance by Sector

- ~~Water Resources: All water~~ Water infrastructure ~~(e.g., such as~~ reservoirs, flood gates) and floodgates, will ~~follow~~ comply with MOWRAM technical standards ~~issued by the Ministry of Water Resources and Meteorology (MOWRAM) and the Water Law (2007). Coordination with Provincial Departments (PDWRAM) will coordinate to ensure that~~ local hydrology and climate resilience are considered in design and siting.
- ~~Rural Infrastructure: Small-scale rural works (e.g., including~~ slope stabilisation, nature trails, and solar lighting), will ~~adhere to follow MRD and MLMUPC technical guidelines from the Ministry of Rural Development (MRD) and the Ministry of~~

Land Management, Urban Planning and Construction (MLMUPC). All construction will comply with national and sub-national relevant building codes and apply appropriate standards for climate resilience and safety.

- **Eco-Tourism Infrastructure:** Activities such as site rehabilitation, nature-based tourism facilities, and biodiversity corridors will align with the National Strategic Plan on Green Development (2013–2030) and the Circular Strategy for Environment (2023–2028).

Eco-villages: Established or upgraded eco-villages with environmental and social safeguards Circular resource systems will comply with the National Green Growth Roadmap (2009) by using circular resource systems. Clean water and sanitation components will comply with the requirements of the Law on Clean Water Management, the Rural WASH Policy (2014–2025), and MRD's MRD's Design Manual for Household Latrines (2015). Design specifications include flood-resilient latrines, menstrual hygiene management, and inclusive access, and will apply Universal Design principles will be applied to ensure accessibility for persons with disabilities in line accordance with the Disability Law (2009).

iii. Labour, Safety, and Community Contracting

All construction and infrastructure-related activities will comply with the occupational health and safety requirements set out in Cambodia's Labour Law (1997). This law covers, including fair wages, non-discrimination, and worksite safety. The project will promote UN-Habitat's Community Contracting Guidelines as adapted by UN-Habitat. This approach will to engage local labour infor small-scale works, foster ownership, and reduce costs. Community institutions will use Community Implementation Agreements towill support compliance. They will monitor implementation, report issues, and ensure monitoring, issue reporting, and adherence to approved designs and safeguard measures safeguards at each site.

2. Environmental and Social Safeguards and Adaptation Fund ESP

The project is expected to fall underbe classified as Category B, pending subject to confirmation during detailed environmental and social screening. This reflects the likelihood of site-specific, limited, and reversible environmental and social impacts. Such impacts that can be managed with appropriate mitigation measures. During the full proposal stage, an An Environmental and Social Management Plan (ESMP) will be prepareddeveloped at the full proposal stage based on screening outcomes. The ESMP will outline measures to avoid, minimise, and mitigate identified risks.results. The project will comply with all 15 Environmental and Social Policy AF ESP principles of the Adaptation Fund during throughout design, implementation, and monitoring. Special attentionfocus will be given to biodiversity

- **Biodiversity** conservation and the protection of natural habitats, with a focus on maintaining ecological habitat integrity in fire-prone forest landscapes.
- **Gender** areas: gender equality and social inclusion, ensuring that women, youth, and other potentially vulnerable groups have equitable access to project benefits, including livelihood opportunitieslivelihoods, capacity-building, and leadership roles.
- **Avoidance**: avoidance of involuntary resettlement and access restrictions on access, ensuring that all project-supported infrastructure and activities strengthen community resilience without displacing or limiting local resource use.
- **Sustainable**: sustainable natural resource management, including community-based NTFP stewardship of non-timber forest products (NTFPs), slope stabilisation, and enhanced fire management practices.

Pollution: and pollution prevention and improved environmental health, particularly in ecotourism zones, through strengthenedespecially wastewater and sewage management systems and the development of environmentally sustainable eco-villages.

3-Structured environmental and social risk assessment

The table (Table 17) below presents the environmental and social risk assessment for this concept stage, structured around the four elements requested by the Secretariat: screening, mitigation, monitoring, and institutional responsibility. This assessment covers each risk theme above, as well as specific risks related to small-scale construction and activities near forest protection communities. It supplements, but does not replace, the detailed principle-by-principle screening in Table 25. A comprehensive, site-specific ESMP will be developed at the full proposal stage after detailed site assessments are completed.

Table 17 Environmental and social risk assessment for this concept stage

ESP risk theme	Screening	Mitigation	Monitoring	Institutional responsibility
Biodiversity & natural habitats	Site-specific ecological screening during CAP finalization (Outputs 1.1-1.2) before any design work begins	Siting avoids critical habitats; nature-based design; buffer zones around sensitive areas	Quarterly ecological spot-checks; annual habitat condition review	Executing Entity (technical); Forestry Administration (technical input); Forest Protection Committees (field monitoring)
Small-scale construction (reservoirs, trails, water gates, sewerage)	Technical design review and ESMP screening before works begin, per the Compliance Process above	Qualified engineering design (per the Component 2 technical-oversight arrangements); confirmation of local stakeholders, OHS protocols; construction-window restrictions	Site inspections during construction; post-completion defect-liability inspection	Executing Entity supervision; qualified engineers; Community Maintenance Committees post-handover
Work with forest protection communities	Screening of forest-based activities (Outputs 2.1-2.2) against the Community	Activities co-designed with, not imposed on, Forest Protection Committees;	Annual forest condition monitoring; social audit of	Forestry Administration; Forest Protection

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	Forestry Sub-Decree and existing forest management plans	sustainable-extraction limits maintained	community agreements	Committees; Executing Entity
Gender & social inclusion	Gender-disaggregated baseline collected at Output 1.1	Gender Action Plan; participation quotas; targeted outreach for marginalized groups	Disaggregated indicator tracking each reporting cycle	Executing Entity Gender Focal Point; CDCs
Involuntary resettlement / restricted access	Land-tenure and customary resource-access screening at site-selection stage (Output 1.3)	Avoidance-first siting through site assessment and demarcation; customary-use mapping completed before finalizing reservoir, trail, or reforestation sites	GRM intake log reviewed quarterly for access-related complaints	Executing Entity; Commune/Sangkat Councils
Pollution prevention (wastewater, solid waste, sediment)	Screening of waste- and wastewater-generating outputs (2.4, 2.6, 2.8)	Hybrid nature-based/engineered treatment (Output 2.6); waste segregation and composting (Output 2.8)	Water-quality spot testing; functionality checks of waste and wastewater systems	Executing Entity; Community Maintenance Committees

The project will ~~set up~~establish an accessible and transparent Grievance Redress Mechanism (GRM) at the local level. ~~This will be integrated into~~with existing forest protection groups and Commune governance structures. The GRM will ~~be designed to ensure~~ meaningful access for all social groups, including women, youth, and Indigenous peoples. ~~It will provide, with~~ clear procedures for receiving, documenting, and resolving concerns ~~about project activities. At the same time, the project's~~. The safeguard monitoring system will ~~strengthen~~build the capacity of local institutions and communities ~~for implementation. This includes measures to implement mitigation measures, document compliance, and ensure accountability. These processes will aim to meet the Adaptation Fund's ESP and its results-based management system. They~~This approach will support ~~continuous~~ongoing monitoring, reporting, and adaptive management ~~during implementation in line with the AF ESP and results-based management.~~

3. Indigenous Peoples and Displaced Population

Relying solely on national census and local registration records to confirm the absence of Indigenous Peoples is insufficient. Other sections of this proposal reference forest-dependent communities, language barriers, and traditional ecological knowledge in the target districts, which require further examination. At the full proposal stage, the project will conduct a dedicated Indigenous Peoples screening, consistent with the AF ESP and national procedures. This will include community-level consultations in the five poor settlements and five forest-protection communities to determine whether any groups self-identify as Indigenous Peoples, distinct from other ethnic-minority or forest-dependent groups. If Indigenous Peoples are identified, the project will document their specific vulnerabilities, describe expected benefits and any differentiated risks, and design culturally appropriate free, prior, and informed consultation and engagement processes. Regarding displacement, the project confirms that no land acquisition or physical relocation is planned. However, activities such as reservoir rehabilitation, reforestation, and eco-trail development may restrict customary or informal access to land, forests, water, or NTFPs, even without physical displacement. These risks are addressed through land tenure and resource access screening, as outlined in the structured risk table above, and through the GRM's access-related complaint channel.

4. Compliance Process and Implementation Pathway

Overall, ~~the~~The project ~~is intended~~aims to meet the ~~relevant~~ technical and regulatory requirements of the Royal Government of Cambodia and align with the ~~Adaptation Fund's~~AF ESP. ~~By integrating environmental~~Environmental and social safeguards ~~will be integrated throughout the design, implementation, and monitoring phases, the project ensures that~~ to ensure adaptation benefits are delivered ~~in an equitable, sustainable, and risk-responsive manner, equitably and sustainably, while avoiding adverse environmental or social impacts while~~ and strengthening ~~the community~~ resilience of vulnerable communities.

Responsibilities for compliance will be

~~Compliance responsibilities are shared across institutions: the~~ The Executing Entity ~~will oversee~~oversees overall compliance and technical validation; ~~provincial. Provincial departments will support design review and approvals; Commune/ and Sangkat authorities will ensure alignment with local planning and permits; and community. Community institutions will participate in monitoring, reporting, and adherence to approved safeguards and technical standards. Compliance with technical standards will be ensured through. All subprojects follow a structured process applied to all subprojects:~~

- ~~Screening: All proposed activities; screening (environmental and social screening of all CAP-identified through Community Action Planning will undergo environmental and social screening activities to determine risk category and required level of assessment (IEE/ESIA/ESMP);~~
- ~~Design Review: Technical level); design review (technical designs will be prepared and reviewed against sectoral standards (water, infrastructure, NbS, tourism) by qualified engineers and relevant provincial technical departments;~~
- ~~Approval and Clearance: Required approvals will be obtained from competent authorities, including MoE for environmental); approval and clearance, (from MoE and relevant sectoral ministries (e.g., MOWRAM, MRD, MLMUPC), and protected area or heritage authorities where applicable;~~
- ~~Supervision); supervision and Compliance Monitoring: Implementation will be supervised compliance monitoring (regular site inspections by the Executing Entity in coordination with provincial departments and Commune/ or Sangkat authorities, with regular site inspections to ensure compliance with approved designs); and ESMP requirements;~~

Handover and O&M **Capacity Building**: Upon completion, subprojects will be formally handed over to community institutions and local authorities, with training provided capacity-building (training on operation, maintenance, and compliance monitoring to ensure long-term sustainability upon completion).

- **Targeted capacity-building** will be provided to community institutions and local authorities to ensure effective compliance with technical standards, ESMP requirements, and reporting obligations.

Table 12

Table 18 now includes a fifth column that identifies the specific training, tools, or technical assistance provided to communities and community institutions to support compliance with relevant technical standards for each output. It also names the responsible agency or team. This capacity-building is anchored in Output 1.2 and is reinforced for each output through sector-specific technical training from the relevant line ministry or provincial department. This ensures that implementation, monitoring, and O&M actors are equipped to meet the standards required.

Table 18 Compliance with national technical standards, rules, regulations and procedures, and ESP principles

Output	AF ESP ¹¹⁴	Relevant Rules, Regulations, Standards and Procedures	Compliance procedure and authorising offices	Training, tools, and technical assistance (delivered by)
1.1 Participatory socio-economic and climate-risk assessments, covering local safety, tourism pressures, and NbS options.	9, 10, 11, 15	CCCSP; National Ecotourism Standard; Protected Area Law (2008)	Assessment survey will be cleared by MoE; forest protection communities and sub-national authorities oversee local implementation.	Training on participatory assessment tools, hazard mapping, and survey protocols, delivered by the Executing Entity's technical team under Output 1.2; forest protection communities and CDCs trained as co-assessors and data collectors.
1.2 Participatory Capacity-building on climate-resilient planning for climate risks and disaster readiness, green/safe tourism, and climate-smart agriculture.	4, 5, 7, 9, 11, 14, 15	Law on Local Governance; CCCSP (2024-2033); Sub-Decree 219; DRM Law (2015)	The training curriculum will be reviewed by MoE; forest protection communities will be trained as trainees.	Content co-developed with Ministry of Interior and MOWRAM; risk mapping validated by District DRM Committees; Commune structures integrate outputs into CDPs/CIPs. This output is itself the project's core capacity-building activity: a Training-of-Trainers curriculum reviewed by MoE and delivered by the Executing Entity together with provincial technical departments (MAFF extension agents, MOWRAM, tourism authorities) to CDCs, Commune Councils, and forest protection communities.
1.3 Capacity-building on Community Action Plans, climate-resilient planning, disaster readiness, risk profiles, and green/safe tourism, and climate-smart agriculture opportunity maps.	1, 2, 3, 5, 7, 9, 10, 11, 14, 15	CCCSP Law on Local Governance; CCCSP (2024-2033); Sub-Decree 219; DRM Law (2015)	Content co-developed with Ministry of Interior and MOWRAM; risk mapping validated by District DRM Committees; Commune structures integrate outputs into CDPs/CIPs. The training curriculum will be reviewed by MoE; forest protection communities will be trained as trainees.	Training on climate-informed CIP/CDP/DDP planning procedures and risk-mapping methods, delivered by Ministry of Interior and MOWRAM with Executing Entity facilitation, targeting Commune Council planning committees and CDCs.
1.4 Community planning Implementation Agreement (CIA) preparation, formalization, and agreements for locally-led adaptation actions fund disbursement.	1, 2, 3, 5, 7, 9, 10, 11, 14, 15	Law on Local Governance; CCCSP (2024-2033); Sub-Decree 219; DRM Law (2015)	Community plans Implementation Agreements are cleared by MoE; Forest management communities' control, with forest protection communities and Community Development Councils controlling prioritization and decision-making.	Training on Community Implementation Agreement (CIA) preparation, basic fiduciary and procurement procedures, and CAP documentation standards, delivered by the Executing Entity under Output 1.2, targeting CDCs and Forest Protection Committees.
1.5 Training and systems for improved waste segregation, composting, and recycling. 2.1 Pilots on climate-smart farming and	2, 3, 5, 7, 9, 12, 11	Cambodia Climate Change Priority Action Plan (2023-30); AG-Extension Policy; MAFF market guidelines; Extension Service Standards; Water Resource Law	Assessment tools approved by Provincial Ag Office; findings inform local market plans; training by certified MAFF extension agents; demonstration linked to MOWRAM safety standards where pumps are installed.	Technical training and on-site mentoring on climate-smart agriculture techniques and MAFF market-guideline compliance, delivered by certified MAFF extension agents, targeting participating farmer groups. Sub-decree on Urban Solid Waste Management Sub-decree on Plastic Bags Management

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¹¹⁴ AF ESP - 1. Compliance with Law; 2. Access and Equity; 3. Marginalised and Vulnerable Groups; 4. Human Rights; 5. Gender Equality and Women's Empowerment; 6. Core Labour Rights; 7. Indigenous Peoples; 8. Involuntary Resettlement; 9. Protection of Natural Habitats; 10. Conservation of Biological Diversity; 11. Climate Change; 12. Pollution Prevention and Resource Efficiency; 13. Public Health; 14. Physical and Cultural Heritage; and 15. Lands and Soil Conservation

value-addition supported by market analysis.		(when irrigation included)		Community-led SWM activities will be prioritized and led by forest protection communities; forest protection communities will be trained as trainees.
2.1 Pilots on climate-smart farming and value-addition supported by market analysis. 2.2 Regional nursery support for community reforestation and natural regeneration.	2, 3, 5, 7, 9, 10, 11, 13	Protected Area Law; Forest Code; Biodiversity Strategy; REDD+ Guidelines Cambodia Climate Change Priority Action Plan (2023–30); AG Extension Policy; MAFF market guidelines; Extension Service Standards; Water Resource Law (when irrigation included)	Reforestation plan approved by FA & GDANCP; species from local seed bank; forest protection community's co-manage planting Assessment tools approved by Provincial Ag Office; findings inform local market plans; training by certified MAFF extension agents; demonstration linked to MOWRAM safety standards where pumps are installed.	Training on native-species propagation and compliance with reforestation-plan requirements under the Protected Area Law, Forest Code, and REDD+ Guidelines, delivered by the Forestry Administration and GDANCP, targeting nursery operators and forest protection communities.
2.3 Ecological and tourism value improvement of reservoir site. 2.2 Regional nursery support for community reforestation and natural regeneration.	2, 3, 5, 7, 9, 10, 11, 13	Water infrastructure standards (Water Resource Law, MOWRAM), heritage protection frameworks (Royal Decree 1994, Protected Areas Law 2008), and eco-tourism standards. Protected Area Law; Forest Code; Biodiversity Strategy; REDD+ Guidelines	Plots registered via Commune extension office in cooperation with MOWRAM and MOTR	Reforestation plan approved by FA & GDANCP; species from local seed bank; forest protection community's co-manage planting Training on MOWRAM water-infrastructure technical standards and on heritage-zone compliance procedures for work within Angkor protected areas, delivered by MOWRAM and the APSARA Authority, targeting Community Maintenance Committees and CPA committees.
2.4. Water retention improved through sediment clearance, water gates, and embankment stabilization. 2.3 Ecological and tourism value improvement of reservoir site.	1, 2, 3, 5, 7, 9, 11	Water Resource Law; Commune technical standards Water infrastructure standards (Water Resource Law, MOWRAM), heritage protection frameworks (Royal Decree 1994, Protected Areas Law 2008), and eco-tourism standards.	Designs reviewed by MOWRAM; built with Commune labour and monitored; reservoir use governed by local Water Committee Plots registered via Commune extension office in cooperation with MOWRAM and MOTR	On-the-job engineering-supervision training and O&M protocol training for construction and maintenance tasks, delivered by MOWRAM-certified engineers/technical supervisors, targeting Water Committee members and community construction teams.
2.5. Eco-village establishment or upgrades using circular systems. 2.4. Water retention improved through sediment clearance, water gates, and embankment stabilization	1, 2, 6, 9, 10, 11	National Green Growth Roadmap Water Resource Law; Commune technical standards	Designs Design and structure reviewed/agreed by MOWRAM; built MoE; build with Commune labour and monitored; reservoir use governed by local Water Committee forest protection communities; community-led establishment and management.	Training on circular-system design and operation under the National Green Growth Roadmap and on Universal Design/accessibility requirements, delivered by MoE and UN-Habitat technical advisors, targeting eco-village management groups and forest protection communities.
2.5. Eco-village establishment or upgrades using circular systems. 2.6. Flood-resilient nature-based sewerage and wastewater systems.	1, 2, 3, 4, 6, 9, 10, 11	Water Resource Law; MOWRAM safety engineering standards; DRM Law National Green Growth Roadmap	Design and structure reviewed/agreed by MoE; build with forest protection communities; community-led establishment and management Engineering review by MOWRAM; maintenance protocols built into Commune CDPs/CIPs; seasonal monitoring with CPA/TB	Technical training on MOWRAM safety-engineering standards and on maintenance-protocol compliance for nature-based/hybrid sewerage systems, delivered by MOWRAM-certified engineers, targeting CPA and Technical Brigade (TB) members responsible for seasonal monitoring.
2.6. Flood-resilient nature-based sewerage and wastewater systems. 2.7. Community early	1, 2, 4, 6, 9, 10, 11 and 14	CCSP, Updated NDC Water Resource Law; MOWRAM safety engineering standards; DRM Law	Engineering review Equipment reviewed by MOWRAM; maintenance protocols built into Commune CDPs/CIPs; seasonal monitoring with CPA/TB	Equipment operation and maintenance-protocol training for early warning systems, delivered by MOWRAM technical staff, targeting CPA/TB members and Commune Council DRM focal points.

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warning systems installed and supported by local training.”				
2.7. Community early warning systems installed and supported by local training.”2.8. Training and systems for improved waste segregation, composting, and recycling.	9, 10, 11 and 14-12	Sub-decree on Urban Solid Waste Management Sub-decree on Plastic Bags Management CCSP; Updated NDC	Community-led SWM activities will be prioritized and led by forest protection communities; forest protection communities will be trained as trainees.	Equipment reviewed by MOWRAM; maintenance protocols built into Commune CDPs/CHPs; seasonal monitoring with CPA/TB Technical training on solid-waste segregation, composting, pilot of community-led SWM campaign and compliance with the Sub-Decrees on Urban Solid Waste and Plastic Bag Management, delivered by MoE and provincial environment officials, targeting community-led SWM groups and forest protection communities.
3.1 Partner and community coordination through meetings, study visits, and capacity-sharing workshops.	1, 2, 3, 5, 9, 10, 11, 13	Gender Action Plan; Environment Strategy (2023–33); CCCSP	Coordination meetings, study visits, and workshop events approved by Provincial Planning Dept; gender targets monitored; inclusion in sub-national plans documented	Facilitation-skills and coordination-protocol training, delivered by the Executing Entity and Provincial Planning Department, targeting CDC representatives and Commune Council members who participate in coordination platforms.
3.2 Policy briefs and recommendations	1, 2	CCCSP	Evidence-based policy briefs and recommendations co-developed with relevant stakeholders	Training on evidence packaging and policy-engagement procedures, delivered by the Executing Entity and MoE policy staff, targeting CDC and Commune Council representatives who contribute evidence to policy briefs.
3.3 Multilingual knowledge materials for non-literate groups	1, 2, 3, 7	Communication Recommendations; Gender & Inclusion Resolutions; MoE communication standards	Materials co-developed with local translators; peer-reviewed with forest protection communities; distributed via Commune & partner media	Training on community-based translation and facilitation methods and on MoE communication standards, delivered by the Executing Entity with local translators, targeting community facilitators who produce and disseminate materials in forest protection communities.

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F. Duplication with other funding sources

A review of ongoing programs and consultations with national and provincial stakeholders suggests that there are found no known similar initiatives with similar activities in their Krong Siem Reap, Banteay Srei, or Svay Leu districts of Siem Reap province. In particular, no other. Specifically, no projects focus on integrated community-led nature-based solutions, eco-tourism-based adaptation, ecosystem restoration, and/or community-based water and infrastructure resilience. The proposed project is designed to avoid duplication with ongoing or planned initiatives financed by bilateral or multilateral partners in the three target districts and their adjacent heritage-protected areas. A preliminary assessment Preliminary assessments, including desk reviews, screening of national and donor project registries, and multi-level project registry screenings, and stakeholder consultations, indicates that found no current adaptation programme specifically addresses programmes addressing climate-resilient livelihood diversification, ecosystem-based adaptation, or sub-national governance improvement in these districts. Based Drawing on information provided by from the Ministry of Environment, the project also reviewed potential overlaps and opportunities for complementarity and synergies with 11 nine ongoing and completed projects (Table 13). This analysis informed project design to ensure 19, ensuring strategic alignment, added value addition, and coherence with existing interventions. The project clearly targets directly addresses identified gaps in locally led adaptation and ecosystem resilience.

Cambodia has received substantial adaptation financing from the Green Climate Fund (GCF), the Global Environment Facility (GEF), IFAD, and bilateral agencies. These funds have, primarily targeted targeting lowland rice areas and the Cardamom Mountains-Tonle Sap landscape. UNDP’s GEF-funded project, Oxfam’s CREFA Project, and IFAD’s ASPIRE programme all focus on climate-resilient livelihoods in provincial farmland. However, these interventions but do not reach forested mountain ecosystems or heritage-protected communities inside Angkor Archaeological Park.

Lessons from previous Adaptation Fund-financed projects have informed the this proposal’s design of this proposed project. For example, “Climate Change Adaptation through Small-Scale and Protective Infrastructure Interventions” (2021–2025) was implemented in the coastal provinces of Kep and Preah Sihanouk, and the AF-UN-Habitat project (2024–2028) operates in Kampot and Koh Kong. These initiatives have demonstrated effective approaches to community-based climate-resilient infrastructure, ecosystem restoration, and participatory implementation. Their success has been, adapted to inform the proposed intervention. However, unlike Unlike these projects, the proposed project however, this proposal uniquely addresses the needs of upland forested ecosystems and eco-tourism corridors, focusing on their distinct biophysical, socio-economic, and governance challenges. It fills a critical filling a gap by tailoring proven Adaptation Fund investments to mountainous terrain and forest-dependent and Indigenous communities. The result is, a context-specific, locally led adaptation solution that responds responding to the unique target upland area’s distinct climate risks and vulnerabilities of the target upland area.

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Stakeholder mapping by MoE and UN-Habitat shows that, based on available information, no major donor-funded climate adaptation or resilience programmes are active in heritage-protected areas of Siem Reap Province, including those supported by ADB, GEF, GCF, or the World Bank.

In summary, the proposed intervention demonstrates strong additionality by addressing critical geographic and thematic gaps, and delivering catalytic value through the introduction of community-led climate governance mechanisms, climate-resilient and nature-based livelihood solutions, and targeted ecosystem rehabilitation in highly vulnerable and historically under-resourced upland protected areas. The proposed project, therefore, provides incremental value by extending adaptation investments to underserved upland protected landscapes that are not currently prioritised by existing programmes.

Table 4.319 Summary of ongoing/pipeline projects

Project Name	Description	Reference	Potential Synergy
Local Governments and Climate Change III (LGCC-3)	GCF-funded project, which aims to integrate climate change adaptation into local development planning and finance, supporting Cambodia's national climate goals and SDGs across Battambang, Pursat, and Preah Vihear.	https://www.greenclimate.fund/project/sap058	Outputs 1.2-1.4 The capacity-building activities of the proposed project can learn from the approaches to integrate climate change adaptation into local plans.
Additional Financing for the Cambodia Sustainable Landscape and Ecotourism Project	GEF-funded project, which aims to improve protected areas management, and to promote ecotourism opportunities and non-timber forest product value chains in the Cardamom Mountains-Tonle Sap landscape.	https://www.thegef.org/projects-operations/projects/10483	Output 1.2, 1.3, 1.4 and Component 2 The proposed project can learn approaches and good practices to improve protected areas management while promoting ecotourism opportunities in heritage-protected areas.
Promoting Climate-Resilient Livelihoods in Rice-Based Communities in the Tonle Sap Region	FAO's GEF-funded project, whose objective is to help rice-based communities in the Tonle Sap region of Cambodia reduce their climate vulnerability and increase their resilience to climate change through an ecosystem-based, market-driven approach.	https://www.thegef.org/projects-operations/projects/10177	Component 1 and Output 2.1 The proposed project is able to consider this project site as one of the study visit options to learn successful climate-resilient farming practices.
Aspire Agricultural Services for Resilience (ASPIRE-AT)	EU funds and IFAD co-financing project that aims to make smallholder farmers and rural workers benefit from inclusive and sustainable agriculture sector growth, based on exports and domestic markets	https://www.eib.org/en/projects/all/20210682	Output 2.1 The localization of successful interventions to improve agricultural productivity through enabling market infrastructure for producer organisations and strengthening the enabling environment for competitive agricultural value chains.
Building climate resilience of communities in Cambodia's protected landscapes: biodiversity-friendly crop-livestock systems for adaptation	FAO's GEF-funded projects, which aim to enhance the climate resilience of local communities, ecosystems, and livelihoods in Cambodia's protected landscapes while aligning with biodiversity conservation goals.	https://openknowledge.fao.org/items/4c4e2a2b-8874-42bc-acf3-8fe299f52c68	Component 2 The project lessons can be reflected in the proposed project's approach and designs, especially livelihood diversification and ecosystem conservation.
Restoring ecosystems for sustainable development in the Tonle Sap Basin and Siem Reap/Phnom Kulen landscape.	UNDP's GEF-funded projects, which aim to promote sustainable land and water management — foundational nature-based solutions that help stabilize ecosystems that local communities depend on for fisheries, agriculture, and services.	https://www.thegef.org/projects-operations/projects/11119	Component 2 Lessons learned from the project could be systematically integrated into the proposed project's design and implementation approach to improve degraded watershed systems.
Building Resilient Livelihoods through Nature-based Solutions in the Tonle Sap Basin and Siem Reap/Phnom Kulen Landscape	UNDP's GEF-funded projects, which aim to strengthen local livelihood systems and climate-resilience capacity. It also emphasizes water resource management, market linkage development, and innovative financing (e.g., payments for ecosystem services)	https://www.thegef.org/projects-operations/projects/11332	Outputs 2.1, 2.3, 2.4 The project's lessons on nature-based solutions to strengthen local livelihood systems and water resource management should be integrated into the proposed project's activities.
Climate Resilience for All (CREFA) Project	With the financial support of the Embassy of Ireland, Oxfam and a consortium of nine organisations have been implementing the project, whose objective is to strengthen local climate resilience capacity, community forestry/forest protection mechanisms, and adaptive livelihood support — particularly through inclusive, gender-sensitive activities, community planning, and policy engagement.	https://cambodia.oxfam.org/latest/stories/oxfam-launch-new-climate-resilience-project-0?utm	Component 1 and Output 2.1 The proposed project is able to learn good practices and lessons learned on inclusive and gender-sensitive activity designs and community planning processes. Policy engagement should also be reviewed before the policy brief preparation to avoid duplication.
Increasing Climate Resilience Through Small-Scale	Adaptation Fund-financed project implemented by UN-Habitat (2024-2028) in coastal Kampot and Koh Kong provinces.	Adaptation Fund project database (project reference to	No geographic or beneficiary overlap (coastal vs. upland heritage-protected districts). As the same

Infrastructure Investments and Enhancing Adaptive Capacity of Vulnerable Communities in Kampot and Koh Kong Provinces in Cambodia	addressing coastal flooding and climate vulnerability through small-scale, community-built infrastructure and adaptive-capacity strengthening.	be confirmed and cited at full proposal stage)	Implementing/Executing Entity partnership, this project is the closest institutional precedent: its community contracting/CIA modality, GRM design, and ESP screening approach directly inform this proposal's design, and implementation lessons continue to be shared via UN-Habitat's Community of Practice and this project's Steering Committee.
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This proposal builds on the Adaptation Fund/UN-Habitat project “Increasing Climate Resilience Through Small-Scale Infrastructure Investments and Enhancing Adaptive Capacity of Vulnerable Communities in Kampot and Koh Kong Provinces in Cambodia” (2024–2028). As both projects share the same Implementing and Executing Entity partnership, this prior project serves as the closest institutional precedent and informs this proposal in three key areas: community contracting and Community Implementation Agreement modality (adapted for Component 2 delivery), grievance redress mechanism design (informing this proposal’s GRM under Section E), and ESP screening for small-scale infrastructure (informing the structured risk assessment). Duplication is avoided by targeting different geographies and ecosystem types: the Kampot/Koh Kong project focuses on coastal flooding and infrastructure vulnerability in lowland provinces, while this proposal addresses forest and watershed degradation, upland drought and rainfall variability, and heritage-site pressures in Siem Reap’s upland, forested, heritage-protected districts, with no overlapping target communities. Institutional complementarity is ensured by reviewing and sharing lessons from the Kampot/Koh Kong project’s implementation and evaluation with this project’s Steering Committee and Component 3 knowledge management activities through UN-Habitat’s Community of Practice (Section G).

[Stakeholder mapping by MoE and UN-Habitat](#) indicates that, based on current information, no major donor-funded climate adaptation or resilience programmes are active in heritage-protected areas of Siem Reap Province, including those supported by ADB, GEF, GCF, or the World Bank.

In summary, this intervention demonstrates strong additionality by addressing key geographic and thematic gaps. It delivers catalytic value through community-led climate governance, climate-resilient and nature-based livelihood solutions, and targeted ecosystem rehabilitation in highly vulnerable, historically under-resourced upland protected areas. This extends adaptation investment to landscapes not currently prioritized by existing programmes.

[Distinguishing this proposal from other upland-landscape projects](#)

Table 19 lists two GEF/UNDP-financed projects in the Siem Reap/Phnom Kulen landscape: “Restoring ecosystems for sustainable development in the Tonle Sap Basin and Siem Reap/Phnom Kulen landscape” and “Building Resilient Livelihoods through Nature-based Solutions in the Tonle Sap Basin and Siem Reap/Phnom Kulen Landscape.” The Secretariat correctly noted that these projects could resemble this proposal’s interventions in ecosystem restoration, climate-smart agriculture, and water management. However, three distinctions apply. First, geographic scope: both GEF/UNDP projects operate basin-wide across the Tonle Sap landscape, while this proposal targets only three districts, Krong Siem Reap, Banteay Srei, and Svay Leu, and within them, five poor settlements and five forest protection communities identified through Component 1. Second, modality: this proposal uses UN-Habitat’s People’s Process and Locally Led Adaptation approach, giving communities defined authority over prioritisation, design input, and fund management (per decision-authority matrix), unlike the more centrally executed GEF/UNDP model. Third, heritage-area focus: this is the only project designed around the regulatory and institutional requirements for operating within and adjacent to Angkor Archaeological Park, including coordination with the APSARA Authority. This proposal treats the two GEF/UNDP projects as sources of lessons, particularly on degraded watershed restoration, rather than as parallel or overlapping investments.

[Institutionalising coordination and avoiding duplication](#)

In addition to the desk review and stakeholder consultations, duplication avoidance and complementarity are ensured through three ongoing mechanisms that continue throughout implementation. First, the project will register with MoE and coordinate through Cambodia’s Technical Working Group on Climate Change (TWG-CC), which tracks climate and adaptation investments, including those in Table 19. This provides a channel to identify and resolve any emerging overlap with other donor-financed activities in the target districts. Second, the Project Steering Committee (MoE, provincial hall, and line-ministry representatives, Criterion 3 decision-authority matrix) will include a standing agenda item to review complementarity with other adaptation-financed projects, specifically the Kampot/Koh Kong project and the Table 19 GEF/UNDP projects. Third, compliance and capacity-building arrangements are integrated with MOWRAM, MAFF, the Forestry Administration/GDANCP, and MoE, rather than using parallel project-specific systems. This ensures sectoral good practice and technical review are aligned with each ministry’s broader work, including engagement with the other Table 19 projects.

G. The learning and knowledge management component

The project prioritises ~~robust~~ knowledge management and institutional learning to ensure ~~the~~ sustained impact, scalability, and value ~~for~~ ~~investment~~ ~~of~~ ~~in~~ locally led climate adaptation ~~practices~~. Component 3 ~~focuses on~~ systematically ~~capturing, sharing~~~~captures~~, ~~shares~~, and ~~applying~~~~applies~~ insights from community-driven interventions. ~~It uses, using~~ gender-disaggregated data and participatory monitoring to ~~direct~~~~guide~~ replication and inform evidence-based policy ~~action~~. This approach builds on

successful practices from previous Adaptation Fund-backed projects in Cambodia, draws on and lessons from the final evaluation of UN-Habitat's Adaptation Fund project (2021–2025), and ensures continuity with established, effective learning methodologies.

Key outcomes of this project include: (1) development of customized knowledge products—such as policy briefs, toolkits, case studies, training materials, and stories of change—strategically crafted to inform and empower audiences from local communities to national policymakers; (2) broad and impactful dissemination via workshops, digital platforms, technical forums, and UN-Habitat's Community of Practice; (3) demonstration of a scalable adaptation model for heritage-protected areas, supporting evidence-based replication by sub-national authorities, APSARA, and national planning bodies; (4) opportunities for sustainable scaling will be pursued through alignment with public budgets, tourism strategies, and development partnerships. Output 3.3 will deliver inclusive, culturally relevant knowledge products at relevant local and global platforms, while Output 3.2 will provide actionable policy briefs for integration into planning frameworks.

Capacity development will occur at the provincial, district, commune, and community levels to enhance participatory planning, inclusive engagement, and technical skills for climate-smart agriculture, green tourism, and nature-based infrastructure operations and maintenance. These activities are designed to deliver improved local planning processes, increased community participation, including women and youth, in monitoring and evaluation, and strengthened technical capacity for sustainable livelihoods. Greater local accountability and ownership will be achieved through a participatory monitoring, evaluation, and learning system that enables adaptive management by supporting, helping communities in tracking progress, identifying challenges, and reinforcing accountability and ownership. These measures directly support donor priorities for locally led, inclusive, and sustainable development outcomes.

1. Knowledge Generation and Adaptive Learning

Knowledge generation will be embedded across all components through:

- Participatory socio-economic and climate vulnerability assessments, complemented by outcome and impact evaluations;
- Analysis of pre- and post-intervention climate-related costs and avoided losses at the household level;
- Assessment of co-benefits from nature-based solutions, including such as ecosystem restoration and renewable energy;
- Integration of climate risk and cost-benefit considerations will be incorporated into Commune Investment Plans (CIPs) and forest protection plans;
- Documentation and validation of local and traditional knowledge will be documented and validated using participatory tools (e.g., including hazard mapping, seasonal calendars, community records, and audiovisual materials);
- Systematic feedback mechanisms will update CAPs, CIPs, and local development plans based on implementation lessons. Findings will be integrated into a dynamic knowledge base designed to provide donors with transparent records of environmental impacts, economic benefits and costs, institutional changes, and social equity outcomes, supporting adaptive management and evidence-based scaling.

The knowledge base will be hosted on a project platform maintained by the Executing Entity, mirrored on the Ministry of Environment's departmental portal, and linked to UN-Habitat's global Community of Practice (K4C), ensuring it is accessible beyond donors. Community-focused content, case studies, toolkits, and CAP/CIP updates will be available in Khmer and in low-bandwidth formats, such as downloadable PDFs and printed materials distributed through Commune Councils and CPA committees, and displayed at public facilities. This ensures access does not depend on reliable internet connectivity. Upon project closure, custodianship will transfer to the Ministry of Environment, with continued public hosting arrangements confirmed at the full proposal stage, so the knowledge base remains available after the project ends.

2. Local to National Knowledge Exchange Platforms

The project will facilitate structured knowledge exchange through:

- Community reflection workshops to strengthen local learning and feedback;
- Peer-to-peer exchanges across target districts (Krong Siem Reap, Banteay Srei, Svay Leu), including study visits and joint learning;
- Provincial and national dialogues with key institutions (e.g., MoE, MoWRAM, NCDD) to inform policy and scaling.

Project staff will document all knowledge using gender-disaggregated data to ensure inclusive and equitable learning outcomes.

3. Knowledge Products and Dissemination

The project will produce:

- Case studies on community-led adaptation and nature-based solutions;
- Toolkits, manuals, and technical briefs on climate-resilient practices and eco-tourism;
- Participatory media (such as videos, testimonials, and infographics) for outreach and advocacy;
- Documented stories of change, capturing qualitative impacts and community experiences;
- Contributions will also be made to national and global knowledge platforms (e.g., including CamClimate, UN-Habitat K4C, and MoE portals).

Dissemination will engage all stakeholder groups—through local media, schools, community networks, and digital platforms—to ensure accessible communication and meaningful inclusion for non-literate and marginalised populations, in alignment with donor priorities for equity and broad impact. The knowledge products generated will be used both to inform project learning and to also enhance national monitoring and evaluation systems, resulting in improved supporting data-driven decision-making and greater integration of effective practices.

4. Contribution to Global Learning

The project will contribute to international platforms, including:

- the Adaptation Fund Community of Practice, APAN, and PANORAMA;
- Global, and global case study and lessons-learned repositories.

Key, with key contributions will include evidence on:

- Hidden hidden climate cost burdens in forest-dependent communities;
- Integration, integration of ecosystem-based and engineered adaptation;

The, and the role of community governance in sustaining outcomes.

5. Communication and Outreach Strategy

The project team will develop a Communication and Outreach Plan during inception, defining target audiences, key messages, and dissemination channels. Team members will generate knowledge Knowledge products will be generated continuously for capacity-building and outreach. Dissemination will include:

- Community through community-level communication tools (such as radio programmes and locally appropriate materials like leaflets, and posters);

Digital, digital and social media platforms (e.g., like Facebook, and Telegram) to enable for real-time sharing of project progress, lessons, and results, particularly targeting youth, practitioners, and national audiences; policy briefs, technical notes, and case studies to support policy dialogue; national and international knowledge platforms including the Adaptation Fund, MoE, and UN-Habitat; and partnerships with universities and research institutions for applied research and long-term learning.

- Policy briefs, technical notes, and case studies to support policy dialogue and stakeholder engagement;
- National and international knowledge platforms (Adaptation Fund, MoE, UN-Habitat);
- Partnerships with universities and research institutions to support applied research and long-term learning.

6. Institutionalising and Sustaining Knowledge Management

Knowledge management is institutionalized through defined custodianship, ensuring it does not rely solely on project-funded staff. The Ministry of Environment will assume custodianship of the knowledge base at project closure, and Component 3's knowledge products are designed for integration into the Ministry's existing planning and reporting cycles, rather than as a stand-alone project archive. The project will also pursue structured partnerships with Cambodian knowledge institutions, particularly the Royal University of Phnom Penh and the Royal University of Agriculture, both of which have environmental and natural-resource-management faculties, as well as national platforms such as CamClimate. These partnerships will support applied research, provide independent validation of project evidence, and ensure the project's knowledge products have an institutional home beyond the project period. Specific partnership agreements will be confirmed and formalized at the full proposal stage.

7. Managing Traditional and Indigenous Knowledge

Because the project focuses on forest-dependent and heritage-adjacent communities, traditional and Indigenous knowledge is treated as a distinct knowledge stream with its own identification, protection, and integration protocol. Identification occurs during Output 1.1 climate-risk and socio-economic assessments, where CDCs and Forest Protection Committees collaborate with community elders and knowledge-holders to document traditional ecological practices relevant to adaptation, fire management, seasonal forest resource use, and traditional water harvesting, using participatory tools such as seasonal calendars and oral history recording. Traditional knowledge documented under Output 1.1 is reviewed and confirmed by the originating CDC or Forest Protection Committee before inclusion in any knowledge product or policy brief, ensuring external use requires community endorsement. Although Indigenous Peoples were not identified at the concept note stage, where they are confirmed present, the same consent and attribution standards apply to Indigenous knowledge, with documentation practices adapted in consultation with the communities concerned.

8. Approaches to Two-Way Knowledge Exchange

In addition to broadcast-oriented digital and social media channels, the project will use digital tools designed for two-way exchange. Field teams and CDCs will use a mobile data-collection application, such as KoBoToolbox or an equivalent, for participatory monitoring and CAP/CIP review data, allowing community-reported information to feed directly into the knowledge base without separate transcription. An SMS or messaging-app-based query channel will enable CDCs and Commune Councils to raise technical questions directly with the Executing Entity's technical team and receive documented responses. This channel is distinct from the GRM and is intended for technical learning exchange rather than complaints. Where digital access is limited, these functions will be supported through existing community meeting structures, so two-way exchange does not depend on individual smartphone ownership.

9. Sustaining the CAP/CIP Feedback Loop

The systematic feedback mechanism for updating CAPs, CIPs, and local development plans will continue beyond the project period, following the same institutional cycle described under “Institutionalising CIP/DDP updates” and the “Operationalising CDP/CIP/DDP integration” table in Component 1. This is repeated here to clarify management and its function as a learning mechanism. CDC-led review meetings, held at least annually, will assess implementation progress, reprioritise investments as needed, and revalidate CAPs through community assemblies and Commune/Sangkat Council endorsement, following the annual review step (Step 7) in Table 13. Since CAPs and CIPs are adopted as standing commune planning instruments rather than parallel project documents, this feedback loop will continue within the government’s annual planning cycle after the project ends, without requiring continued Adaptation Fund financing. Through this structured, iterative approach, the project aims to increase institutional knowledge, enable broader adoption of proven adaptation practices, and ensure that investments yield long-term, data-driven impacts. Key outcomes include increased, with more knowledge products, higher exchange frequency, and more effective integration of lessons into planning and policy processes.

H. Stakeholder Consultations

The proposed project was informed by developed through an inclusive, iterative, consultative consultation process led by the Ministry of Environment (MoE), with technical support from UN-Habitat. Consultation findings directly informed These consultations guided the selection of priority adaptation investments, including such as water retention, ecosystem restoration, and eco-tourism-based livelihood diversification. This process engaged a broad range of stakeholders at national, sub-national, and local levels, including government officials, technical experts, and forest management community representatives from the target districts. The Ministry of Environment played a central role from the outset, ensuring that the project is aligned MoE ensured alignment with Cambodia’s national adaptation priorities and the broader climate resilience agenda from the outset.

Initial consultations began in took place from mid-June 2025 and continued through to mid-May 2026 (see Annexes 1 and 2). These activities included joint field visits, separate meetings, and topic-focused discussions with district and commune leaders and forest community representatives. We worked to include The process deliberately included vulnerable groups, such as women-led households, Indigenous and forest-dependent people, and low-income families.

At the local level, structured and inclusive consultations were conducted with district and commune authorities, and forest protection community representatives to assess underlying assessed climate and socio-economic vulnerabilities, identify identified priority sectors and infrastructure needs, and validate the validated climate risks affecting target communities. These risks include such as drought, heat stress, erratic rainfall, and environmental degradation. These consultations also supported the identification of identified locally led adaptation options, including nature-based solutions, and the prioritisation of prioritized urgent adaptation needs across the target landscapes. In addition, discussions explored community. Community-driven implementation modalities approaches, sustainability mechanisms, and institutional capacity were also explored. UN-Habitat has established built strong working relationships with provincial and district administrations and will maintain continuous ongoing dialogue and coordination throughout the project life cycle.

The consultation process showed Consultations revealed that climate risks affect men and women differently. Women face are more impacted due to greater impacts because they spend more time collecting responsibilities in water, earing for collection, family care, and farming for food. They also have less production, as well as limited access to land, decision-making, training, and climate information. Floods and droughts make further harm women’s health and nutrition problems worse, especially when they face where language barriers, limited roles participation in local groups, and loss of traditional knowledge that helped families adapt increase vulnerability. These findings have directly shaped informed the project’s gender-aware responsive design.

Drawing Building on these insights and in line with following the Leaving No One Behind (LNOB) principle, the project will ensure that women, youth, and other vulnerable groups are actively involved in setting adaptation priorities and benefit fairly equitably from project activities. The project will support gender equality in all parts by:

- (i) making sure women can take part This includes supporting women’s participation in planning, doing implementation, and checking the work;
- (ii) making sure women take part monitoring: their inclusion in new income options opportunities and climate-friendly farming training;
- (iii) adding features that help women improved access to water, sanitation, and tourism facilities; and
- (iv) strengthening women’s strengthened leadership and representation within local governance structures, especially within forest protection communities. Relevant forest Forest protection communities and sub-national authorities will be supported receive support to meet gender participation targets, as outlined in line with the gender action plan, which will to be developed during the full proposal development stage.

As part of preparation for the,

During full proposal preparation, additional consultations are planned during the development phase. Ongoing engagement will be held with sub-national stakeholders will continue to inform project design, to strengthen local ownership, and ensure alignment align with evolving national and provincial priorities. This continued engagement will also support the effective and inclusive delivery of adaptation outcomes. In addition, targeted consultations will be conducted Engagements with the Ministry of Women’s Affairs (national and gender machinery), gender-focused civil society organisations, and women’s associations to further integrate will ensure integration of gender equality and social inclusion into both the full proposal and implementation stages.

During this phase, the project will also undertake stakeholder consultations. Consultations with local tourism operators and tour guide associations will identify specific needs, opportunities, and strategies for integrating to integrate project sites into existing and emerging eco-tourism circuits. Insights from these consultations will inform the design of- and inform climate-resilient, community-led eco-tourism activities that enhance livelihood diversification and long-term sustainability while aligning with local market dynamics and conservation objectives design.

Table 1420 Overview of Stakeholder Consultations

Location	Participants	Date	Topic(s) discussed	Participants
Provincial Department of Environment, Siem Reap Province	Representatives from Ministry of Environment, Provincial Department of Environment, and UN-Habitat	16 June 2025	Consultation on existing challenges and needs of communities in Siem Reap Province, and the preparation of the community meetings, site investigation, and data collection	9 (female – 2)
Siem Reap City Hall and Proposed Site, Siem Reap Province	Representatives from Siem Reap City, Sangkats in Siem Reap City, Ministry of Environment, and UN-Habitat	17-18 June 2025	Consultation on existing challenges and needs, and existing initiatives of Sangkats in Siem Reap Province	14 (female – 3)
Banteay Srei District Hall and sites, Siem Reap Province	Representatives from District administration, Communes, Villages, Ministry of Environment, and UN-Habitat	17 June 2025	Consultation on existing challenges and needs, and existing initiatives of Banteay Srei district	15 (female – 2)
Five Communities in Kulen Protected Area, Svay Leu district, Siem Reap Province	Representatives from Communes, Communities, Provincial Department of Environment, Ministry of Environment, and UN-Habitat	19 June 2025	Consultation on existing challenges and needs, and existing initiatives of Svay Leu district	14 (female – 2)
Proposed sites in Krong Siem Reap, Banteay Srei, and Svay Leu districts	Representatives from Communities and UN-Habitat	29-30 October 2025	Site observation and confirmation of the proposed activities, scale, and possible impacts.	5 (female – 1)
Provincial Hall	Representatives from Siem Reap Province and UN-Habitat	06 May 2026	Consultation on proposed outcomes, outputs in Siem Reap Province, including project gender responsive measures	4 (female – 1)
APSARA Authority Office	Representatives from APSARA Authority and UN-Habitat	06 May 2026	Consultation on feasibility to intervene the small-scale infrastructure improvement in APSARA area such as output 2.6 and future engagement.	5 (female – 2)
Siem Reap City Hall	Representatives from Siem Reap City, Svay Leu Districts, Banteay Srei Districts, Relevant Communes/ Sangkats, and UN-Habitat	06 May 2026	Consultation on proposed outcomes, outputs in Siem Reap Province and analysis of climate change impacts and corresponding gender responsive measures.	18 (female- 7)
Siem Reap Provincial Hall	Representatives from Ministry of Environment, Provincial administration, Relevant provincial departments, City and districts, Communes and Sangkats, Academia, Non-governmental organizations, Civil societies, Private sector, and UN-Habitat	18 May 2026	Consultation on proposed outcomes, outputs in Siem Reap Province and analysis of climate change impacts and corresponding gender responsive measures and eco-tourism.	38 (female – 8)
Target communities	Representatives from Commune/Sangkat, Villages and communities	19 May 2026	Verification of specific measurable indicators for relevant outputs and gender assessment	25 (female -10)

Consultation participation was disaggregated by community and institutional involvement. Of the 10 stakeholder consultation sessions summarized in Table 20, three directly engaged community members: the 19 June 2025 session with five communities in the Kulen Protected Area of Svay Leu district; the 29–30 October 2025 site visits confirming proposed activities and scale with communities in Krong Siem Reap, Banteay Srei, and Svay Leu districts; and the 19 May 2026 session verifying measurable indicators with target communities. Table 21 distinguishes these from the remaining seven sessions, which primarily involved national and sub-national government representatives (MoE, provincial and district administrations, Commune/Sangkat officials), APSARA Authority, academia, civil society, and the private sector.

Table 21 Community versus institutional/multi-stakeholder consultation participation

Consultation category	Sessions (Table 14)	Total participants	Of whom women	% women
Community-focused sessions (19 June 2025 Kulen Protected Area communities; 19 May 2026 target-community indicator verification)	3	39	12	30%
Sub-national/national government, technical, academic, and multi-stakeholder sessions	7	103	25	24%
All Table 14 sessions	10	147	38	26%

Table 21 disaggregates participation by sex but not by other relevant dimensions, such as disability, IDPoor, or poverty status. This will be addressed in future consultations: during full proposal development, attendance records will tag each participant's stakeholder category (community member, sub-national government, national government, academia/CSO/private sector) along with sex, age, and disability status. This approach will ensure precise future reporting.

The three community-focused sessions directly influenced project design. The 19 June 2025 consultation in the Kulen Protected Area identified climate risks, resource-access constraints, and livelihood priorities for Svay Leu forest-dependent communities, informing the selection and location of Component 2 interventions, including forest restoration and water retention. The 29–30 October 2025 site visits confirmed the scale and locations of proposed subprojects with the host communities before finalizing activities and budget allocations in this concept note, rather than presenting a fixed design. The 19 May 2026 session verified measurable indicators with target communities, ensuring the results framework reflects community-validated definitions of success.

The Secretariat's concern regarding Women's CSO engagement is acknowledged. At the concept stage, engagement with Women's CSOs and the Ministry of Women's Affairs has not yet occurred. The interim gender analysis is based on the initial assessment in Annex 3 and sex-disaggregated data in Table 20. To address this, engagement with the Ministry of Women's Affairs and gender-focused civil society organisations will be scheduled at the start of full proposal development to directly inform the gender action plan, rather than as a validation step after drafting.

I. Justification for funding requested

The funding requested from the Adaptation Fund financing is essential to cover the incremental additional costs of priority adaptation measures to that reduce climate risks faced by for vulnerable communities in the heritage-protected areas of Krong Siem Reap, Banteay Srei, and Svay Leu districts in Siem Reap Province. These communities—areas are home to predominantly forest-dependent households and economically marginalised marginalized groups—are experiencing intensifying facing increasing climate-related stresses, including such as prolonged droughts, increased heightened forest fire risk, ecosystem degradation, and climate-induced livelihood disruption. The proposed project is closely aligned aligns with national and sub-national development priorities, community-identified needs, and the Adaptation Fund's strategic objectives: delivering. It delivers an integrated approach that strengthensto strengthen climate resilience, livelihoods, ecosystems, and institutional capacity across the three target districts. The requested funding represents the incremental cost required to move from baseline development to climate resilient, risk-informed, and locally led adaptation pathways. Without external support, these communities lack the institutional capacity, financial resources, and technical expertise required to plan, finance, and implement locally led adaptation measures. Adaptation Fund resources are therefore critical to enable communities and sub-national authorities to move beyond basic coping responses and implement long-term climate resilient solutions that would not otherwise be feasible strategies.

Current investments in the target districts focus on basic service delivery and limited infrastructure, lacking systematic without systematic integration of climate risk. Local budgets are constrained and prioritize routine development, limiting support for ecosystem restoration or risk-informed projects. As a result, adaptation responses are fragmented and reactive, and do not adequately address increasing climate and ecosystem challenges. Local budgets are constrained and prioritise regular development, restricting support for ecosystem restoration or risk-informed projects. This results in fragmented and reactive adaptation responses, which are insufficient against growing climate and ecosystem challenges.

Climate change introduces additional brings risks, uncertainties, and design requirements that exceed baseline current development capacity. Increasing drought frequency More frequent droughts, erratic rainfall, forest fire risk, and ecosystem degradation require enhance higher design standards, nature-based restoration, climate-resilient infrastructure, early warning systems, and inclusive governance mechanisms. These needs impose additional costs for risk-informed planning, technical design, long-term maintenance, and institutional capacity that, which are not covered by existing public financing or development programmes programs.

Tourism-related interventions are designed included as adaptation measures because climate change increasingly threatens the ecological systems and livelihoods upon which that tourism depends relies on. Climate hazards, including such as extreme heat, erosion, flooding, drought, and ecosystem degradation, reduce visitor access, damage tourism infrastructure, and threaten community income. Nature-based tourism investments such as, including watershed restoration, eco-trail stabilization, climate-resilient drainage, wastewater treatment, and ecosystem rehabilitation, help reduce climate vulnerability while diversifying, diversify household income, and strengtheningstrengthen resilience.

Table 22 below demonstrates that each climate hazard referenced in this section, including extreme heat, is addressed by specific proposed measures rather than being cited only as contextual risk.

Table 22 Climate hazards referenced in this section and the measures that address them

Climate hazard referenced above	Proposed measures that address it
Extreme heat	Outputs 2.2-2.3 (forest and watershed restoration, restoring the cooling function of forest cover); Output 2.7 (community-based early warning and awareness for heat stress); see 'Heatwaves' hazard analysis above
Erosion	Outputs 2.2-2.3 (reforestation, slope-stabilising eco-trail design and reservoir-site rehabilitation)

Flooding	Outputs 2.4 and 2.6 (water retention, embankment stabilisation, flood-resilient nature-based sewerage); Output 2.7 (community early warning systems)
Drought	Outputs 2.1, 2.2, and 2.4 (climate-smart agriculture, forest/watershed restoration, water retention and sediment clearance)
Ecosystem degradation	Outputs 2.2-2.3 (forest and reservoir-site restoration); Component 1 (climate risk and NbS prioritisation through Community Action Planning)

Existing government financing ~~primarily~~mainly supports conventional development priorities and routine service provision. ~~Current financing mechanisms provide, with limited support~~funding for ecosystem restoration, climate risk-informed design, community-managed adaptation systems, ~~and/or~~ locally led implementation approaches.

Adaptation Fund resources ~~finance the incremental cost required to transform~~cover the additional costs of transforming standard development investments into climate-resilient systems ~~capable of addressing future climate risks. Key benefits include enhanced durability, inclusiveness, and sustainability of systems by supporting. This includes~~ climate risk-informed planning (Component 1); ecosystem restoration and NbS~~nature-based infrastructure (Component 2); climate-resilient design features, early warning systems, and community-led delivery mechanisms through Community Implementation Agreements, as well as; and~~ safeguards and knowledge systems (Component 3). These ~~investments directly address climate risks, thereby enhancing long-term resilience and the capacity to withstand climate impacts~~measures enhance durability, inclusiveness, and sustainability.

Under the baseline scenario, adaptation efforts ~~stay~~remain under-resourced and fragmented. Most communes lack climate-informed plans, and climate risks are not systematically integrated into development or budgeting. Forest protection groups face capacity and funding constraints, ~~limiting their ability to restore forests, monitor that limit forest restoration, monitoring of~~ illegal activities, ~~manage disaster risk management, and implement~~implementation of nature-based solutions. Infrastructure is not climate-resilient, ~~exposing~~leaving communities ~~exposed~~ to erratic rainfall, water scarcity, flooding, and heat. Livelihoods remain climate-sensitive, relying on rain-fed agriculture, unsustainable resources, and informal work. These vulnerabilities are compounded by poverty, limited access to climate information and ~~teehnologies~~technology, weak disaster preparedness, and ~~the~~ exclusion of women and youth from decision-making. The project ~~delivers~~provides a comprehensive adaptation package with four main benefits, each addressing structural vulnerabilities through interconnected approaches: ~~climate-resilient and nature-based infrastructure to reduce disaster risk and strengthen adaptive capacity; ecosystem restoration and protection to enhance water regulation, microclimate buffering, erosion control, and fire risk reduction; inclusive governance and adaptive capacity to strengthen the ability of sub-national authorities and community institutions, including women and youth, to integrate climate risk into planning, budgeting, and disaster preparedness; and livelihood diversification through climate-resilient agriculture, climate-smart enterprises, and value-added NTFP development to reduce climate sensitivity and improve income stability and food security. Institutional integration and sustainability are achieved by embedding adaptation measures in local plans and forest protection community frameworks, with strengthened coordination linking community initiatives to provincial and national systems.~~

- **Climate-Resilient and Nature-Based Infrastructure:** Investments in water retention systems, slope-stabilising eco-trails, solar lighting, and early warning systems will reduce disaster risks, enhance public safety, and strengthen adaptive capacity.
- **Ecosystem Restoration and Protection:** Restoration of degraded forest and watershed ecosystems will enhance water regulation, microclimate buffering, erosion control, and fire risk reduction, supporting long-term resilience and livelihoods.
- **Inclusive Governance and Adaptive Capacity:** Capacity building and institutional support will strengthen the ability of sub-national authorities and community institutions—including women and youth—to integrate climate risk into planning, budgeting, and disaster preparedness.
- **Livelihood Diversification:** Climate-resilient agriculture, climate-smart enterprises, and value-added NTFP development will reduce climate sensitivity and improve income stability and food security.
- **Institutional Integration and Sustainability:** Adaptation measures will be embedded in local plans and forest protection community frameworks, with strengthened vertical coordination linking community initiatives to provincial and national systems.

While some initiatives address ~~elements~~aspects of disaster risk reduction or conservation, few ~~provide~~offer an integrated, nature-based, and community-driven adaptation model at this scale. The Adaptation Fund grant, ~~therefore,~~ enables a ~~fundamental~~ shift from ~~current trajectories of ongoing~~ ecosystem degradation and climate-sensitive livelihoods toward inclusive and resilient development pathways. ~~Neither communities nor~~Communities and sub-national authorities ~~possess~~lack the capacity to undertake these investments independently, ~~underseering~~highlighting the critical additionality of Adaptation Fund support. ~~It is imperative to seize this opportunity to catalyse lasting, community-led transformation by supporting this initiative.~~

The project budget ~~prioritises~~prioritizes direct adaptation benefits. Approximately 68.6 ~~per cent~~percent of total financing is allocated to Component 2, which focuses on tangible investments in infrastructure, ecosystem restoration, and livelihood resilience. Components 1 and 3 strengthen institutional capacity, implementation effectiveness, and long-term sustainability. Together, these form a coherent, cost-effective adaptation package that addresses both immediate risks and systemic vulnerabilities. Cost-effectiveness is further enhanced through co-financing and in-kind contributions, including commune resources, community labour, land, ~~and~~ local knowledge, ~~as well as~~and the use of existing forest ~~protection community structures. As indicated~~shown in Table 79, the estimated cost per beneficiary ~~USD ((US\$3.83 — 3,571.43)~~ represents strong value for money given the scale and durability of ~~the~~ benefits. ~~The project has been developed through a participatory process, ensuring alignment with locally identified priorities.~~

These co-financing and in-kind contributions are indicative at this concept stage; they are not yet confirmed through signed letters, and their sources are specific: Commune/Sangkat annual budgets (via the CIP/CDP integration pathway), community labour and local materials contributed through the People's Process and Community Implementation Agreements under Component 2, land and site access provided by Community Protected Area and Forest Protection Committees within their existing legal mandate under the Community Forestry Sub-Decree (2003), and local knowledge documented under Output 1.1. Each complements Adaptation Fund financing in a specific way: commune budget co-financing sustains O&M after the project period, community labour reduces contractor mark-up and mobilisation costs, and CPA/Forest Protection Committee land access avoids the cost and safeguard risk of land acquisition entirely. In-kind contributions, particularly unskilled and semi-skilled community labour, also build practical construction skills supporting livelihood diversification and future employment.

The cost-per-beneficiary methodology follows a consistent formula across all outputs in Table 9: the numerator is each output's AF budget allocation, and the denominator is that output's unique direct beneficiaries, individuals receiving training, assets, or services directly, with double-counted overlap removed where the same person benefits from more than one output (e.g. participants trained under Output 1.1 also reached by Output 1.3 are counted once, per Table 9's 'direct beneficiary overlap' column). Indirect beneficiaries are the total population of each output's geographic footprint, drawn from commune-level population data. The wide range (US\$3.83–3,571.43) reflects genuine differences in what each output delivers: outputs delivering community-wide infrastructure or early-warning coverage (e.g. Output 2.7) reach tens of thousands of direct beneficiaries per dollar, while outputs delivering small-group specialised training or enabling infrastructure (e.g. Output 2.2's regional nursery) intentionally reach a small direct cohort whose benefits extend further through indirect ecosystem services.

The proposed project offers several deliverables that safeguard lives, and livelihoods, and restore ecosystems in Cambodia's heritage-protected landscapes. Requested Adaptation Fund financing is justified because it overcomes institutional, technical, and financial barriers, producing an effective adaptation model with clear benefits. These include improved safety, greater livelihood stability, restored ecosystems, increased resilience for vulnerable groups, and a replicable approach model for climate-resilient, locally led development. Adaptation Fund financing is justified as it overcomes institutional, technical, and financial barriers to deliver this effective adaptation model. Table 4.523 presents the incremental differences and the main outcomes enabled by Adaptation Fund support.

Table 4.523 Effect of project outcomes with AF funding compared to no funding (baseline)

Project Components	Project Outcomes	Baseline (without AF)	Results achieved (with AF)
Component 1: Strengthening the development and investment planning processes at the Commune/ Sangkat and district/city levels by <u>improving embedding climate change adaptive capacity through Nature-based Solutions (NbS) risk, integrated adaptation solutions, and targeted locally led decision-making into local development planning and capacity-building activities.</u>	Outcome 1: Sub-national development and investment planning processes (Commune/Sangkat and District levels) are climate-informed and demonstrate enhanced institutional capacity to integrate nature-based solutions and green tourism into adaptive governance frameworks.	- Climate resilient and adaptive capacity, including climate governance and knowledge systems, of the Krong Siem Reap, Banteay Srei, and Svay Leu districts in Siem Reap Province is poor. - The most vulnerable people (women, youth, people with disability, agricultural workers) are not identified or reached by local authorities/ agencies through their plans and programs, as the most vulnerable people tend to be excluded from the decision-making processes. - Institutional capacity is limited and fragmented to integrate climate adaptation, nature-based solutions, and green ecotourism into the local plans. Updated climate vulnerability and socio-economic data are lacking.	- The most vulnerable groups are prioritized as beneficiaries - Through mainstreaming the UN-Habitat's participatory People's Process approach into action throughout the project lifecycle, the project enables local communities, especially the most vulnerable people, to discuss and identify problems and solutions while also selecting beneficiaries, overseeing implementation, and monitoring progress until the project's completion. Training and capacity building of officials and the identified vulnerable members enable them to cope with climate change/ variability, while improving the capacities of officials to lead climate change adaptation planning/implementing activities, promoting nature-based solutions, green and safe ecotourism.
Component 2: Developing and piloting prioritized <u>climate-resilient infrastructure, ecosystem-based, and livelihood investments</u> within Commune/ Sangkat and district/city development plans <u>to promote sustainable human settlements through the application of NbS.</u>	Outcome 2: Vulnerable households and communities benefit from improved livelihoods and enhanced resilience through the implementation of nature-based, small-scale infrastructure and adaptive land-use practices aligned with sustainable tourism and agriculture.	- Vulnerable communities in the heritage-protected areas are mainly reliant on agriculture as the main income source, even though changing rainfall and temperature patterns place significant pressure on crop yields, income stability, and food availability. - Illegal logging, agricultural encroachment, and unsustainable land use led to deforestation and habitat fragmentation, which are affecting agricultural productivity. The vulnerable communities have received little support so far to tackle issues, such as malfunctioning infrastructure, ecosystem degradation, flooding, droughts, and solid waste management.	- Climate-adaptive livelihoods are enhanced through capacity-building on climate-smart agriculture and climate-resilient income strategies based on market analysis and training. - The annual income stability of the vulnerable households improves by producing and selling products based on identified viable, climate-resilient, and value-added agricultural products. Minimize the risk of illegal logging, agricultural encroachment, and unsustainable land use by promoting community-led climate-resilient and nature-based solutions through participatory action planning.

		• These social and environmental issues directly or indirectly affect the safety and economic activities of vulnerable households. • Degraded ecosystems increase community exposure to landslides, droughts, and flooding. Limited investment in basic services such as water access, slope stabilization, and clean energy.	• The natural resources and targeted vulnerable communities in the protected areas are protected from floods, droughts, strong winds, and forest fires, while harnessing local natural resources for protecting natural resources and ecosystems, indigenous cultures, and creating alternate income sources through community-based ecotourism.
Component 3: Supporting the local stakeholders in replicating the project's best practices through policy recommendations and knowledge sharing initiatives.	Outcome 3: <i>Proven models for community-led, integrated climate adaptation, spanning nature-based solutions, resilient infrastructure, and diversified livelihoods, are documented, disseminated, and adopted for replication and policy integration at sub-national and national levels, including within Siem Reap's sustainable green tourism economy. Proven models for nature-based, community-led adaptation and sustainable green tourism are documented, disseminated, and adopted for replication and policy integration at sub-national and national levels.</i>	• There is no system for collecting, documenting, or disseminating adaptation lessons. • Baseline data are lacking, local innovations are undocumented, and knowledge remains isolated at the community level. • Institutional learning is weak or absent. Limited knowledge sharing opportunities among local or indigenous language speakers.	• Participatory M&E systems in place. • Knowledge products (case studies, briefs, visuals) were developed and disseminated locally and nationally. • Communities engaged in learning processes. • Good practices documented and scaled through national platforms. Knowledge products work as advocacy materials to attract ecotourists.

J. Sustainability of programme outcomes

Sustainability is ~~embedded in~~ *integrated into the* project design to ensure that adaptation benefits for vulnerable communities in Krong Siem Reap, Banteay Srei, and Svay Leu districts ~~continue to persist~~ beyond the project lifecycle. ~~Drawing Building~~ on lessons from Adaptation Fund-supported initiatives in Cambodia, the project ~~adapts~~ *employs* a community-driven and institutionally anchored approach ~~that strengthens~~. *This strategy enhances* local capacity, reinforces ownership, supports viable livelihoods, and ~~sustains~~ *maintains* ecosystem integrity. ~~Implementation builds on by leveraging~~ existing governance, financing, and community systems, ~~integrating across~~ institutional, social, economic, financial, environmental, and infrastructure ~~dimensions~~ *domains*.

Long-term sustainability will be ~~ensured~~ *achieved* through local ownership, institutional integration, and ~~sustained~~ *ongoing* capacity development. ~~Operation~~ *Operations* and maintenance (O&M) responsibilities will be ~~defined before~~ *established prior to* infrastructure completion, with Community Maintenance Committees ~~overseeing~~ *managing* community-level assets. ~~Maintenance responsibilities will be integrated into and integrating maintenance into~~ Commune Development Plans (CDPs), Commune Investment Plans (CIPs), and District Development Plans (DDPs), ~~while~~. Forest Protection Committees and eco-village groups will ~~support~~ *provide* ecosystem stewardship. ~~Sustainability will be further strengthened through integration of~~ Community ~~Action~~ *Adaptation* Plans (CAPs) and Community Agreements ~~(CAs) will be incorporated~~ into local planning systems, supported by Training-of-Trainers ~~approaches~~ *models* and technical mentoring. Community institutions ~~including~~, CDCs, Commune Councils, and Forest Protection Committees ~~will~~ *continue to maintain* oversight and adaptation activities beyond project completion, ensuring ~~sustained~~ *benefits are sustained* after 2031.

The entities referenced throughout this proposal—including the Project Steering Committee, Provincial Departments and APSARA Authority, District Administrations, Commune/Sangkat Councils, CDCs, Forest Protection Committees, Primary Groups, Community Maintenance Committees, and eco-village groups—constitute a unified governance structure rather than separate bodies. Figure 10 delineates their respective roles and reporting lines, distinguishing between standing institutions that persist beyond the project's conclusion in 2031 (green) and operational groups established and overseen by CDCs for specific project functions (pink).

Three features are critical for sustainability. First, CDCs function as standing sub-committees of the Commune/Sangkat Council rather than as parallel project bodies, ensuring their formal status after project completion. Second, Forest Protection Committees operate under the mandate of the Community Forestry Sub-Decree (2003), and their co-management responsibilities are independent of project financing. Third, Primary Groups, Community Maintenance Committees, and eco-village groups are operational entities convened by CDCs for specific functions such as grassroots participation, asset O&M, and eco-village management. Their continuity relies on the CDC/Commune Council structure, which, as a standing institution, is not contingent on continued Adaptation Fund support.

1. Institutional Sustainability (link to LLA Principle 4)

Climate adaptation is integrated-into embedded within sub-national planning systems, including Commune Development Plans (CDPs), Commune Investment Plans (CIPs), District Development Plans (DDPs), and Community Protected Area (CPA) management plans. This ensures, ensuring that adaptation priorities are systematically incorporated into regular planning and budgeting cycles. Capacity-building strengthens initiatives enhance the ability of commune councils, district administrations, and forest protection communities to undertake conduct risk-informed planning and climate-responsive governance. Under Through the People’s Process, Primary Groups and Community Development Councils (CDCs) lead local prioritisation, monitoring, and maintenance, while Commune Councils retain maintain authority over planning integration, budgeting, and oversight. CPA committees continue to manage the ecosystem ecosystems within their legal mandates. The Ministry of Environment (MoE) ensures alignment with national frameworks, including the Cambodia Climate Change Strategic Plan (CCCSP, 2024–2033), thereby supporting continuity and replication.

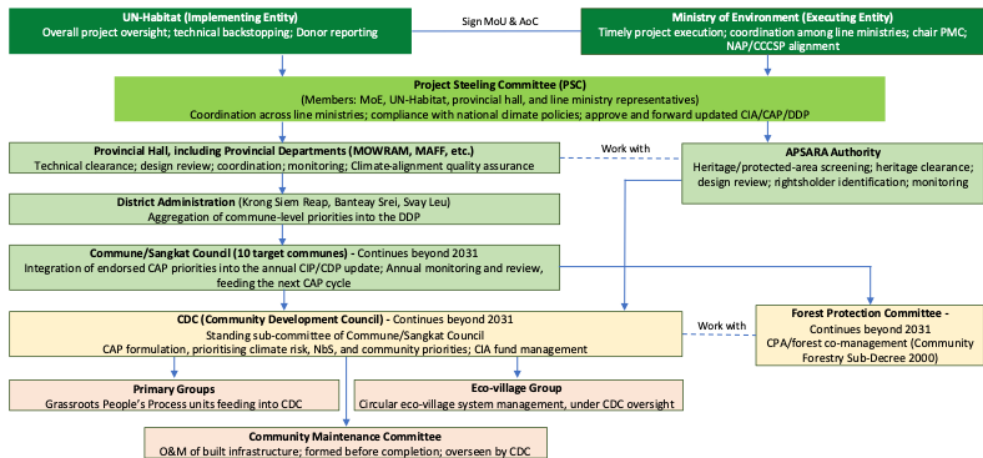


Figure 10 Institutional and community governance structure

The four planning instruments referenced above each serve distinct sustainability functions. Commune Development Plans (CDPs) are multi-year, all-sector development plans for each commune; adaptation priorities are incorporated into CDPs through the CAP-to-CIP/CDP institutionalisation pathway and are updated according to the Ministry of Interior’s decentralisation cycle. Commune Investment Plans (CIPs) are annual rolling investment plans derived from each CDP, listing budgeted subprojects for the upcoming fiscal year and serving as the mechanism through which CAP-prioritized subprojects receive commune funding (Table 13, Step 4), updated annually with the commune budget cycle. District Development Plans (DDPs) aggregate commune CDPs and CIPs at the district level (Table 13, Step 5) for cross-commune investments, updated on the district’s own cycle. CPA management plans operate separately, governing natural resource management within registered Community Protected Areas under the Protected Areas Law (2008), including zoning, resource-use regulations, and restoration. These plans are periodically reviewed by the Forest Protection Committee in collaboration with the General Department of Administration for Nature Conservation and

Protection (GDANCP), outside the general development planning cycle. This distinction is significant for sustainability: CDPs, CIPs, and DDPs anchor adaptation investments within general development budgeting under Commune/Sangkat and district governments, while CPA management plans provide a foundation for ecosystem stewardship within protected-area governance under Forest Protection Committees and GDANCP. Collectively, these instruments address both the financing and natural resource management aspects of the sustainability strategy.

2. Social Sustainability (link to LLA Principle 2)

Inclusive, community-led processes strengthen enhance ownership and build long-term capacity. Participation The People’s Process ensures the participation of women, youth, persons with disabilities, and forest-dependent households is ensured through the People’s Process. Community groups, producer collectives, and participatory monitoring systems enhance foster social cohesion,

facilitate knowledge transfer, and strengthen adaptive capacity. Access to climate-resilient services, such as early warning systems, water security, and renewable energy, further supports sustained resilience.

3. Economic Sustainability

Diversified, climate-resilient livelihoods support promote sustained income and reduce alleviate pressure on natural resources. Interventions include These outcomes are achieved through climate-smart agriculture, agroforestry, and value-added non-timber forest product (NTFP) enterprises, supported by training, cooperative models, and market linkages. Economic benefits are further reinforced through improved productivity and reduced climate-related losses.

4. Financial Sustainability (link to LLA Principle 3)

Adaptation financing is embedded within integrated into local planning and budgeting systems. Commune/Sangkat Funds and district investment programmes programs will support the continuation of priority actions, complemented supplemented by community contributions where appropriate. Community-managed revenue streams, such as eco-tourism services, visitor fees, and sustainable value chains, will be institutionalised institutionalized and earmarked allocated for operation operations and maintenance (O&M) of assets. O&M financing will follow utilize a blended model: Commune/Sangkat budgets will cover core maintenance, while community-level revenue and contributions will finance supplementary costs. Cost-sharing arrangements will be defined during implementation, ensuring clear responsibilities and long-term functionality. The Community Implementation Agreement (CIA) model establishes local financial management, procurement, and reporting systems that can be sustained and used leveraged for future investments. This mechanism strengthens, thereby strengthening long-term capacity to access and manage climate finance.

5. Environmental Sustainability

Nature-based solutions (NbS) underpin inform the foundation of environmental sustainability by restoring ecosystem functions and strengthening enhancing climate resilience. Interventions such as forest rehabilitation, watershed management, and slope stabilisation enhance stabilization improve ecological integrity while reduce and reduce long-term maintenance needs. Activities requirements. These actions align with national frameworks, including the National Biodiversity Strategy and Action Plan (NBSAP) and Nationally Determined Contribution (NDC) priorities. A detailed comprehensive Environmental and Social Risk Assessment (ESRA) will be conducted during full proposal development to identify potential risks and define establish mitigation measures, ensuring full. This process will ensure compliance with the Adaptation Fund Environmental and Social Policy (AF ESP) and relevant national regulations. Safeguards will be integrated, integrating safeguards into project design, implementation, and monitoring.

6. Infrastructure Sustainability (link to LLA Principle 1)

Climate-resilient design, local ownership, and clear clearly defined operations and maintenance (O&M) arrangements ensure the sustainability of infrastructure. Use The use of locally appropriate materials and technologies reduces maintenance complexity. Communities, commune councils, and technical agencies will agree on O&M responsibilities, supported by with training and formal handover processes to ensure continued functionality.

7. Knowledge and Replication (link to LLA Principle 6)

Knowledge management and policy integration support facilitate scaling and long-term impact. Lessons learned, tools, and case studies will be documented and disseminated shared through national platforms and stakeholder dialogues. Policy briefs and technical recommendations will be submitted to the Ministry of Environment (MoE) and relevant ministries, aligned with national frameworks such as the Cambodia Climate Change Strategic Plan (CCCSP) and the National Adaptation Plan. These processes This approach will facilitate support the replication of locally led adaptation models across in other climate-vulnerable provinces.

Sustainability is achieved through a locally led system in which community institutions manage implementation and monitoring, while, At the same time, sub-national authorities integrate adaptation into formal planning and budgeting. This through a combination of devolved decision-making, institutional anchoring, diversified financing, and policy integration ensures, ensuring that adaptation investments are sustained, scaled, and responsive to evolving climate risks.

All investments will undergo be subject to climate risk and Environmental and Social Safeguards (ESS) screening prior to implementation. Technical designs will incorporate integrate future climate projections and ecosystem considerations, while community. Community consultations and participatory assessments will help identify and avoid mitigate unintended consequences and risks of maladaptation risks. Nature-based and adaptive management approaches will reduce minimise lock-in risks and prevent the transfer of vulnerability. ESS screening, consistent with the Adaptation Fund Environmental and Social Policy (AF ESP) and UN-Habitat Environmental and Social Safeguards System (ESSS) requirements, will be applied throughout the project cycle. Risks related to labour, gender exclusion, sexual exploitation and abuse/sexual harassment (SEA/SH), biodiversity, construction impacts, and community health and safety will be managed through Environmental and Social Management Plans (ESMPs). Codes of Conduct, grievance mechanisms, monitoring, and community-based accountability measures.

K. Environmental and social impacts and risks

The proposed project has been designed and will be implemented in full compliance fully comply with Cambodia's national technical standards and environmental legislation, the Adaptation Fund's Environmental and Social Policy (ESP) and Gender Policy, and UN-Habitat's Environmental and Social Safeguards System (ESSS, Version 3). Environmental and social safeguards

are will be systematically integrated across throughout the entire-project cycle to prevent, minimise, and manage potential risks, while also promoting environmental sustainability, gender equality, social inclusion, and human rights-based approaches. These safeguards underpin the project's commitment to transparency, equity, and climate-resilient development, without harming existing or future environments or societies. Project planning and design are informed/guided by inclusive, participatory processes involving with communities and local authorities to ensure that interventions avoid adverse impacts on ecosystems and vulnerable groups.

Based on the initial/Initial environmental and social screening, indicates the project is expected to/will be classified as Category B under the Adaptation Fund's ESP. This classification reflects the presence of, due to potential environmental and social risks and adverse impacts that are site-specific, limited in scale, reversible, and readily-mitigable through established procedures and practical mitigation measures. Anticipated risks. These risks and adverse impacts are primarily associated with are mainly linked to small-scale physical investments under Component 2, including such as water-harvesting systems, eco-trails, sewage and wastewater systems, and the land restoration of degraded land within the target areas. All activities. Activities under Components 1 and 3 consist of are non-structural ("soft") interventions, such as, including capacity building, planning, coordination, and knowledge management, and are therefore considered Category C, with negligible or no environmental or social risk.

Combined scale, Indigenous Peoples screening, access restrictions, and pollution/public health risks

Reservoir and water-gate rehabilitation, eco-trail development, wastewater and sewerage infrastructure, and reforestation will take place across five forest protection communities and at least 12 eco-villages within and near Phnom Kulen National Park and the Angkor landscape. This combined footprint presents potential for direct, indirect, and cumulative impacts that differ from those of individual activities. UN-Habitat will conduct a combined and cumulative impact assessment at the full proposal stage, integrated with site-specific heritage and protected-area assessments, rather than assessing each activity separately.

In the Indigenous Peoples screening, the proposal's current statement that consultations confirm Indigenous presence "based on the census and local registration database" relies on administrative registration alone, which is not adequate grounds to conclude that no Indigenous Peoples or self-identifying Indigenous communities are present. UN-Habitat will replace this with a dedicated screening at full proposal stage combining: verification against national and provincial indigenous/ethnic-minority registries; culturally appropriate, facilitated consultations with forest protection communities and sub-national authorities designed to elicit self-identification rather than relying on registration as a proxy; and consultation with APSARA and the Ministry of Environment on any documented indigenous or ethnic-minority presence in the area. If Indigenous Peoples are confirmed to be present at any target site, an Indigenous Peoples Plan meeting the ESP's requirements will be prepared and disclosed before related activities proceed, as reflected in the revision to Table 25, row 7 (Indigenous Peoples).

This concern is corroborated by concrete, directly relevant evidence rather than being only a generic precaution. In 2025, Siem Reap provincial authorities began formal steps to recognise a Kuoy indigenous community across four villages, Srenoy, Sre Samuth, Lvea, and Kork Wat, of Sre Noy commune, Varin district (Khmer Times, 2025). Phnom Kulen National Park spans Banteay Srei, Svay Leu, and Varin districts, meaning this documented, provincially recognised indigenous community sits within the same national park landscape as two of this project's three target districts. The Kuy are Cambodia's largest ethnic-minority/indigenous group nationally and are traditionally forest-dependent, with a historical presence across the wider Kulen-Preah Vihear-Kampong Thom uplands (Minority Rights Group International; IFAD Country Technical Note on Indigenous Peoples' Issues, Cambodia). While the confirmed Kuoy villages are administratively in Varin rather than in Svay Leu or Banteay Srei, their presence in the same protected-area landscape materially raises the likelihood that self-identifying Kuy or other indigenous households are also present within the project's five forest protection communities, reinforcing why the self-identification-based screening committed to above, rather than a registry check, is necessary before the full proposal stage.

The proposal states that no land acquisition or physical displacement is planned. However, it has not yet assessed whether reservoir rehabilitation, eco-trail development, or reforestation could restrict customary or informal resource use, such as NTFP collection, seasonal grazing, or fishing access. These restrictions could result in economic displacement, even without land acquisition, especially given the combined project footprint. UN-Habitat will conduct participatory land-tenure and resource-use mapping for each candidate site before final selection, applying an avoid-minimise-mitigate-compensate hierarchy. Any unavoidable restrictions will be addressed through site-specific livelihood restoration measures agreed with affected communities, and the project GRM will include a dedicated channel for access-related grievances. This is reflected in the revision to Table 25, row 8 (Involuntary Resettlement).

The current assessment addresses construction-phase risks such as waste disposal, sediment release, dust, and noise, but does not yet cover risks from wastewater and sewerage infrastructure (Output 2.6) or agrochemical, water-abstraction, and species-introduction risks from climate-smart agriculture (Output 2.1). UN-Habitat will ensure that wastewater and sewerage sub-projects use decentralised, low-technology treatment suitable for community scale, meet national effluent standards before release, and include sludge and solid-waste management and composting plans to prevent untreated effluent from reaching watercourses feeding the Tonle Sap system. Climate-smart agriculture will prioritise organic, low-input practices, exclude synthetic pesticide and fertiliser use within buffer distances (to be confirmed at full proposal stage) of reservoirs, wetlands, and waterways, and screen introduced crop varieties for invasive potential. Community WASH and vector-control awareness will accompany reservoir and sewerage works, along with basic safety measures such as fencing and signage at permanent water infrastructure. These measures are reflected in the revisions to Table 25, rows 12 (Pollution Prevention and Resource Efficiency) and 13 (Public Health).

Table 25 currently rates climate-change risk as Low, despite acknowledging maladaptive infrastructure risk. This is inconsistent, as a Low rating should indicate negligible residual risk after mitigation. UN-Habitat has revised the rating to Moderate (Table 25, row 11) and will design water-related infrastructure using forward-looking climate projections, including the SSP3-7.0 scenario, rather than relying solely on historical data. Designs will be reviewed for maladaptation risks, such as downstream flood exposure, dry-season over-extraction, and heat exposure on eco-trails, at both design and post-construction stages. Infrastructure performance will be monitored through the project's climate and results-monitoring system to enable corrective action if maladaptive outcomes arise.

The project uses a community-led, ecosystem-based approach with low-impact, nature-based solutions that avoid critical habitats, involuntary resettlement, and harm to physical or cultural heritage. Physical interventions will occur only at pre-identified, degraded, or community-approved sites to enhance ecosystem services, biodiversity, and climate resilience. Technical, with technical designs will be screened for compliance with national standards through inclusive reviews.

During proposal development and implementation, the project will apply a comprehensive safeguards framework, including an Environmental and Social Management Plan (ESMP), a Gender Action Plan (GAP), and a project-level Grievance Redress Mechanism (GRM). Coordination with focal among local agencies at all levels will ensure compliance, oversight, and quality. UN-Habitat's ESSS Checklist (Version 3) will be used at the design stage for all sub-projects, with safeguard assessments validated with by field offices and partners.

Implementation of mitigation Mitigation measures will be monitored throughout the project lifecycle using disaggregated indicators to detect risks and ensure inclusivity. Monitoring will involve regular site visits, annual ESP re-screening, and safeguard audits based on field data and community feedback. Where unforeseen Unforeseen risks arise, mitigation measures will be applied addressed promptly, and with lessons learned will support informing adaptive management. All infrastructure will comply with relevant national standards and be reviewed with government authorities at all levels. The project carries low to moderate environmental and social risks, which the team will manage managed in accordance with Adaptation Fund Environmental and Social Policy (ESP) principles and national regulations. The team summarises key risks and mitigation measures, as summarised below:

- **Siting** Key risks and mitigation measures include: siting in environmentally sensitive or protected areas; Relevant authorities will screen and align activities, addressed through authority screening, alignment with national environmental regulations and protected area management plans, and will also provide technical validation.
- **Small** small-scale construction and ecosystem disturbance; We will minimise impacts by designing, minimised through site-specific solutions, applying nature-based approaches, and following environmental management practices.
- **Exclusion** exclusion of vulnerable groups; The People's Process promotes, addressed through inclusive participation by setting quotas for women, youth, and vulnerable groups, and by establishing transparent decision-making mechanisms. The community contracting team will implement, and simplified occupational health and safety (OHS) protocols, including training, supervision, and provision of basic safety measures.
- **Financial** provisions; financial management and misuse of risk, managed through Community Implementation Agreements (CIAs; formal documents outlining community project roles); dual-signatory accounts (requiring two people to approve payments); milestone-based disbursement (funds released in phases for specific achievements); audits, and social accountability mechanisms will ensure fiduciary integrity.
- **Grievance** and grievance and conflict risks; A, addressed through a structured grievance redress mechanism (GRM) will be established at the community level, with escalation pathways to sub-national authorities. A detailed Environmental and Social Risk Assessment (ESRA; a process for identifying, measuring, and managing risks) and relevant management plans will be developed at the full proposal stage.

Heritage, protected-area, and safeguards framework for the Angkor-Phnom Kulen landscape

The following commitments outline the assessment methodology, clearance requirements, and safeguards framework that UN-Habitat will apply. They do not indicate that heritage, biodiversity, or social risks have already been ruled out. Further screening and monitoring will be required at the full proposal stage and throughout implementation.

Site-specific mapping. At full proposal stage, UN-Habitat will map every candidate site against: the Angkor World Heritage property boundary and buffer zone; APSARA's five-zone system under the 1994 Angkor Zoning and Environmental Management Plan; the Phnom Kulen National Park boundary; known archaeological/sacred sites; protected and critical natural habitats; the Tonle Sap Biosphere Reserve's core, buffer, and transition zones (Royal Decree, December 2001; core zone ~42,300 ha of flooded forest); and customary-use areas identified through land-tenure mapping. Sites falling within a core protected or heritage zone will be excluded or relocated unless the competent authority grants explicit clearance.

Biodiversity Table 16, hydrology, and Outstanding Universal Value. Building on Table 25, rows 9-10 screening, UN-Habitat will assess impacts on ecosystem connectivity; on the hydrological regime feeding downstream wetlands, Angkor's water-management systems, and the Tonle Sap Biosphere Reserve; and on the visual integrity and authenticity underpinning Angkor's Outstanding Universal Value.

APSARA and heritage clearance: Heritage Impact Assessment. UN-Habitat will confirm, for each site, clearances required from APSARA National Authority (established 19 February 1995) and any other competent authority, and commission a Heritage Impact Assessment per UNESCO/ICOMOS guidance, covering baseline documentation, impact evaluation against Outstanding

Universal Value attributes, the mitigation hierarchy, and monitoring. No physical works commence until applicable clearance is obtained.

Chance finds procedure. Adopted for all physical works and included in construction/community-contracting agreements: (1) work will stop immediately on discovery of archaeological, cultural, or paleontological material; (2) the find will be secured and left undisturbed; (3) the PMU Safeguards Officer will be notified and who in turn notifies APSARA or the relevant authority, consistent with Cambodia's 1996 Law on the Protection of Cultural Heritage; (4) work will not resume until the competent authority inspects and issues written clearance; (5) all contractors and site supervisors will be trained on the procedure before works begin.

Strengthened Indigenous Peoples and resettlement assessment. Extends the screening and land/resource-access mapping specifically to Phnom Kulen/Angkor sites: rightsholder identification will be cross-checked against APSARA and MoE records, and consultation will be designed to be culturally appropriate for any identified indigenous or ethnic-minority groups.

Safeguards framework for community-selected and not yet finalised activities. Because specific reservoir, eco-trail, reforestation, and eco-village sites will be selected through the People's Process during implementation, UN-Habitat will apply the following safeguard framework to any activity whose site is not yet finalised (Table 24):

Table 24 Safeguard Framework for any activity whose site is not yet finalised

Element	Requirement
Exclusion criteria	No works in the Angkor WHS core zone, prohibited APSARA zones, critical natural habitats, or protected archaeological/sacred sites without documented clearance; no activity without required FPIC; no involuntary displacement.
Screening and approval	(1) standardised E&S screening (per UN-Habitat's ESSS Checklist) before site finalisation; (2) risk categorisation and exclusion-criteria check; (3) heritage/protected-area screening with APSARA and/or MoE/GDANCP clearance where triggered; (4) confirmation of FPIC/community consent; (5) sign-off by PMU Safeguards Officer and relevant CDC before inclusion in the annual workplan. No works begin until all five steps are complete.
Institutional responsibilities	PMU Safeguards Officer: screening, ESMP/HIA supervision, GRM oversight. APSARA: heritage/protected-area clearance in its jurisdiction. MoE/GDANCP: clearance outside APSARA's jurisdiction. Commune/Sangkat Councils and CDCs: site identification, consultation, local GRM. UN-Habitat country office: independent QA and periodic audits.
Expertise and budget	A dedicated E&S Safeguards Specialist and heritage/cultural-resource consultant (jointly engaged with or seconded from APSARA where feasible) join the project team from inception, with a technical assistance budget line confirmed at full proposal stage.
No-works-before-clearance	For any activity without a finalized site at concept stage, implementation will not begin until screening/approval is complete and all clearances (heritage, protected area, environmental, community consent) are documented — binding regardless of schedule.

Revalidation of overall risk classification. These revisions mean the project's risk classification cannot yet be confirmed as fully resolved. UN-Habitat retains, pending the screening/HIA/ESMF process above, Category B for Component 2 physical investments (site-specific, potentially significant risks in the Angkor-Phnom Kulen landscape) and Category C for non-structural Component 1 and 3 interventions. This classification and Table 25's mitigation measures will be reconfirmed once site-specific mapping, HIA, and Indigenous Peoples screening are complete at full proposal stage, and re-screened throughout implementation per the Adaptation Fund's ESP.

Table 25 Brief description of possible risks and preventive/mitigation measures

Checklist of Environmental and Social Principles	Further Assessment Required for Compliance	Potential Impacts and Risks – Further Assessment and Management Required
1. Compliance with the Law	✓✓	Medium risk. Small-scale infrastructure (reservoirs, water gate, eco-trails) may require site-specific authorization from MoE, MRD, or Commune Councils. Mitigation: Conduct legal compliance screening; secure all approvals; ensure contractors comply with PA Law, Construction Standards, MRD Rural Infrastructure Guidelines, and MoE Protected Area regulations; contracts of all stakeholders with a clause to comply with domestic and national regulations. <u>Given the project's location within and adjacent to the Angkor World Heritage property and Phnom Kulen National Park, legal compliance also requires formal clearance from APSARA National Authority and, where relevant, GDANCP, alongside MoE, MRD, and Commune Council authorizations; no physical works will commence in APSARA-managed zones or nationally protected heritage areas until clearance is obtained.</u>
2. Access and Equity	✓✓	Medium risk. Risk of inequitable access to participate in project decision-making due to conduct participatory targeting (including representatives of marginalized populations); risk of unequal access to benefits of the project's small-infrastructure investment; Khmer-language consultations; ensure mobility and disability inclusion. Mitigation: Apply participatory, gender-responsive targeting with representatives of marginalized groups; conduct consultations in Khmer and relevant local languages; ensure mobility and disability access; and monitor equitable benefit distribution through disaggregated indicators.

3. Marginalized and Vulnerable Groups	✓✓	Medium risk. Women, youth, older persons, and persons with disabilities may not fully access project opportunities. Mitigation: Conduct gender-disaggregated baseline; Gender Action Plan (GAP); ensure tailored outreach; allocate quotas; prioritize vulnerable groups in livelihood, governance, and eco-tourism activities.
4. Human Rights	X	Low risk. No anticipated adverse impacts: all activities enhance rights to participation, water, safety, and livelihood opportunities. Mitigation: Uphold UDHR and UNDRIP principles; embedded inclusion in planning; ensure GRM is accessible to all stakeholders, including women and youth.
5. Gender Equality and Women's Empowerment	✓✓	Medium risk. Women may face constraints in participation, benefit-sharing, leadership, or mobility in eco-tourism and livelihood activities due to cultural norms and time-intensive household care duties. Mitigation: Develop a Gender Action Plan (GAP); ensure women-only consultations; ensure ≥50% per cent minimum participation.
6. Core Labour Rights	X	Low risk. Construction under community contracts may involve occupational hazards and risk of underpayment and gender-based unfair payment. Mitigation: Enforce Cambodian Labour Law, ILO standards; provide training; ensure wage transparency; integrate labour safety monitoring.
7. Indigenous Peoples	X	Numerous consultations with sub-national, community-level authorities, and forest protection community members ensure that any indigenous people living in the target districts are based on the census and local registration database. Risk not yet fully determined; further assessment required. A preliminary desk review of national census and indigenous-community registration data found no legally registered indigenous community in the target communes, but this alone does not confirm the absence of Indigenous Peoples or self-identifying indigenous communities under the Fund's ESP. Mitigation: At full proposal stage, UN-Habitat will complete a dedicated Indigenous Peoples screening combining (i) verification against national and provincial indigenous-community registries, (ii) culturally appropriate, facilitated consultations designed to elicit self-identification rather than relying on administrative registration alone, and (iii) consultation with APSARA and MoE on any known indigenous or ethnic-minority presence in Phnom Kulen National Park and the wider Angkor landscape. If Indigenous Peoples are confirmed present, an Indigenous Peoples Plan meeting the ESP's FPIC requirements will be prepared before related activities proceed. This is not a hypothetical concern: in 2025, Siem Reap provincial authorities began formally recognising a Kuoy indigenous community across four villages of Sre Noy commune, Varin district — a district that shares the boundary of Phnom Kulen National Park with the project's Svay Leu and Banteay Srei target districts, within the same protected-area landscape. The full-proposal-stage screening described above will specifically test whether this or other self-identifying Kuy or ethnic-minority presence extends into the project's own target communities.
8. Involuntary Resettlement	X	Low risk. Medium risk (revised from Low; see justification below). No land acquisition or physical displacement. However, reforestation or water reservoirs could inadvertently restrict access if poorly sited. Mitigation: Undertake land-use verification; prepare a reforestation plan, an inclusive reservoir rehabilitation plan and confirmation, ensure restoration and reservoir rehabilitation occurs on public/communal lands only; conduct access mapping; avoid any restriction of customary use. This rating has been revised upward to reflect the combined footprint of reservoir rehabilitation, eco-trail development, reforestation, and water-gate works across the target forest protection communities, which increases the likelihood that some customary or informal resource-use areas could be affected even without land acquisition. Mitigation (in addition to the above): participatory land-tenure and resource-use mapping will be completed for every candidate site before final site selection, applying an avoid-minimise-mitigate-compensate hierarchy; any unavoidable restriction on customary or informal access will be addressed through a site-specific livelihood restoration measure agreed with the affected community, and the project GRM will maintain a dedicated channel for access-related grievances.
9. Protection of Natural Habitats	✓✓	Medium risk. Limited disturbance is possible near degraded forest edges, eco-trail areas, and water reservoirs. Mitigation: Conduct ecological site inspections and stakeholder consultations; avoid intact habitats; apply biodiversity-safe NbS design; restore vegetation after works. This assessment currently covers direct, localised disturbance. At full proposal stage it will be extended to the combined and cumulative impacts of all Component 2 physical works together, and to screen Output 2.1 climate-smart agriculture activities for natural-habitat risks from water abstraction, new crop/species introduction, and land-cover change, alongside the reservoir, eco-trail, and reforestation works already covered.
10. Conservation of Biological Diversity	✓✓	Medium risk. Limited disturbance is possible near degraded forest edges, eco-trail areas, and water reservoirs. Mitigation: Conduct ecological site inspections and stakeholder consultations; avoid intact habitats; apply biodiversity-safe NbS design; restore vegetation after works. Given the project's setting within the wider Angkor-Phnom Kulen-Tonle Sap landscape, this assessment will be extended at full proposal stage to evaluate direct, indirect, and cumulative impacts on ecosystem connectivity (including wildlife movement between Phnom Kulen National Park and surrounding forest patches) and on the hydrological regime feeding downstream wetlands and the Tonle Sap Biosphere Reserve, in addition to the localised habitat disturbance addressed above.

11. Climate Change	X	~~Low risk.~~ Moderate risk (revised from Low; see justification below). The project is designed to bring adaptation benefits. However, there is a risk of maladaptive infrastructure- either by failing to bring benefits or by shifting climate-change-related risks and vulnerabilities to other areas. Minimal emissions are also expected small embodied carbon from infrastructure materials and mission travel. Mitigation: Source local materials where possible; conduct pre-site inspections before designing design; use low-carbon, solar-powered, and renewable materials; adopt NbS; and ensure. This rating has been revised upward because the proposal itself identifies a risk of maladaptive infrastructure, inconsistent with a Low rating — Low applies only where residual risk is negligible once mitigated, which cannot yet be confirmed for infrastructure designed under today's climate conditions rather than projected ones. Additional mitigation: infrastructure will be designed against forward-looking climate projections, including the SSP3-7.0 scenario used elsewhere in this proposal; designs avoid will be reviewed for maladaptation risk (e.g., waterlogging downstream flood exposure, dry-season over-extraction), heat exposure on eco-trails) at design and post-construction stages; and performance will be monitored through the project's climate and results-monitoring system.
12. Pollution Prevention and Resource Efficiency	X	~~Low risk.~~ Moderate risk (revised from Low; see justification below). Risks of small-scale, localized pollution due to poor disposal management of waste, sediment release, or materials during water reservations and water gate rehabilitation. Mitigation: Contractors implement based on Waste Management Plans; enforce sediment traps and runoff control; use efficient, locally sourced materials, and provide proper protective gear for construction workers. This rating has been revised upward to reflect two activity types not previously addressed here: wastewater and sewage systems under Output 2.6, and climate-smart agriculture under Output 2.1, alongside the pollution risks from waste disposal, sediment release, and construction materials already noted. Mitigation (in addition to the above): wastewater and sewerage sub-projects will apply decentralised, low-technology treatment appropriate to community scale, meet national effluent standards before release, and include a sludge/solid-waste management and composting plan so no untreated effluent reaches watercourses feeding the Tonle Sap system; climate-smart agriculture will prioritise organic, low-input practices, exclude synthetic pesticide/fertiliser use within buffer distances (to be confirmed at full proposal stage) of reservoirs, wetlands, and waterways, and screen introduced crop varieties for invasive potential; sediment and erosion control will apply throughout reservoir and water-gate works.
13. Public Health	X	~~Low risk.~~ Moderate risk (revised from Low; see justification below). Typical construction site risks during construction include dust, noise, unsafe equipment, sanitation issues, and vehicle transportation. Mitigation: Enforce MRD/MoH WASH and safety standards; PPE; first-aid kits; signage; ensure clean water and sanitation at worksites, safety plan for the construction site, and provide proper protective gear for construction workers. This rating has been revised upward to reflect vector-borne and waterborne disease risks (e.g., mosquito breeding in stagnant water, contamination from poorly managed wastewater) from reservoir, water-gate, and sewerage infrastructure, and community-safety risks around open water bodies, not addressed in the construction-focused assessment above. Mitigation (in addition to the above): community WASH and vector-control awareness will accompany reservoir and sewerage works; standing-water management will be built into reservoir/water-gate designs and O&M plans; and permanent water infrastructure will include basic safety measures (fencing or barriers at high-risk points, warning signage) agreed with the community during design.
14. Physical and Cultural Heritage	✓✓	~~Medium risk.~~ Moderate to high risk (revised from Medium; see justification below). Potential disturbance to the landscape and the value of protected forests and heritage protected areas. Mitigation: Heritage screening; community mapping; proper GRM establishment, supervision by forest protection communities. This rating has been revised upward because the project area lies within and adjacent to the Angkor World Heritage property, its buffer zone, and Phnom Kulen National Park, an area of exceptional archaeological and cultural sensitivity not reflected in the previous rating and mitigation measures. A full site-specific heritage and protected-area impact assessment, a Heritage Impact Assessment (HIA) per UNESCO/ICOMOS guidance, APSARA and other competent-authority clearance requirements, and a chance-finds procedure are set out under CAR19 above and will be finalised at full proposal stage; no physical works will commence until applicable clearances are obtained.
15. Lands and Soil Conservation	X	Low risk. Soil erosion is possible during earthworks for trails, water reservoirs, and slopes. Introduction of invasive species during the reforestation. Mitigation: Apply nature-based stabilization (vetiver, bamboo, mixed planting); terracing; erosion fencing; time works for the dry season; monitor post-construction stability; introducing native species.

PART III: IMPLEMENTATION ARRANGEMENTS

Table 26 Demonstrate how the project/programme aligns with the Results Framework of the Adaptation Fund

Project Objective(s) ¹¹⁵	Project Objective Indicator	Adaptation Fund Outcome	Adaptation Fund Outcome Indicator	Grant Amount (USD)
Objective 1: To strengthen the development and investment planning processes at the Commune/Sangkat and district/city levels by embedding climate risk, integrated adaptation solutions, and locally led decision-making within local development planning and capacity-building. To strengthen community and sub-national adaptive capacity and integrate climate risks and nature-based solutions into community and local development planning in target areas.	- # of institutions integrating climate risk into annual plans disaggregated - % of Commune/Sangkat/District staff with improved capacity (disaggregated by gender and ethnicity). - # of trained people, disaggregated by gender	Outcome 1: Reduced exposure to climate-related hazards and threats	1. Relevant threat and hazard information generated and disseminated to stakeholders on a timely basis	9276,000
		Outcome 2: Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses	2.1. Capacity of staff to respond to, and mitigate impacts of, climate-related events from targeted institutions increased	304296,000
Objective 2: To develop and pilot prioritised climate-resilient infrastructure, ecosystem-based, and livelihood investments within Commune/Sangkat and district/city development plans. To implement community-led, climate-resilient livelihood improvements, small-scale adaptive infrastructure and sustainable green-tourism.	- % of populations receives disseminated early warning - # of physical infrastructure improved - # of ecosystem services and natural resource assets maintained or improved - % of populations practice climate-smart agriculture and value-addition practices (sex & ethnicity disaggregated)	Outcome 1: Reduced exposure to climate-related hazards and threats	1. Relevant threat and hazard information generated and disseminated to stakeholders on a timely basis	150,000
		Outcome 4: Increased adaptive capacity within relevant development sector services and infrastructure assets	4.1. Responsiveness of development sector services to evolving needs from changing and variable climate 4.2. Physical infrastructure improved to withstand climate change and variability-induced stress	1,659847,000
		Outcome 5: Increased ecosystem resilience in response to climate change and variability-induced stress	5. Ecosystem services and natural resource assets maintained or improved under climate change and variability-induced stress	250,000
		Outcome 6: Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas	6.1 Percentage of households and communities having more secure access to livelihood assets 6.2. Percentage of targeted population with sustained climate-resilient alternative livelihoods	1,101,000
Objective 3: To support local stakeholders in replicating the project's best practices through policy recommendations and knowledge-sharing initiatives. To generate and share knowledge and policy recommendations to support institutional learning, replication, and scaling of community-based adaptation practices.	- # of population receives knowledge products produced (hard and soft copies) - # of participants to the learning events (sex & ethnicity disaggregated)	Outcome 3: Strengthened awareness and ownership of adaptation and climate risk reduction processes	3.1. Percentage of targeted population aware of predicted adverse impacts of climate change, and of appropriate responses 3.2. Percentage of targeted population applying appropriate adaptation responses	468,000

¹¹⁵ The AF utilized OECD/DAC terminology for its results framework. Project proponents may use different terminology but the overall principle should still apply

Total outcome level grant amount	4,208,000
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Table 27 Indicative targets for project-specific results framework indicators

Project Outcome(s)	Project Outcome Indicator(s)	Adaptation Fund Output	Adaptation Fund Output Indicator	Grant Amount (USD)
Outcome 1: <u>Sub-national development and investment planning processes (Commune/Sangkat and District levels) are climate-informed and demonstrate enhanced institutional capacity to integrate nature-based solutions and green tourism into adaptive governance frameworks. Sub-national development and investment planning processes (Commune/Sangkat and District levels) are climate-informed and demonstrate enhanced institutional capacity to integrate nature-based solutions and green tourism into adaptive governance frameworks.</u>	- # of Commune/Sangkat/District plans integrating climate risks based on vulnerable assessments. - % of Commune/Sangkat/District members with increased climate adaptation capacity (sex & ethnicity disaggregated) - % of women participating in capacity-building trainings	Output 1.1: Risk and vulnerability assessments conducted and updated	1.1. No. of projects/programmes that conduct and update risk and vulnerability assessments (by sector and scale) ~~1.2 No. of early warning systems (by scale) and no. of beneficiaries covered~~	~~96,000~~ 276,000
		Output 2.1: Strengthened capacity of national and sub-national centres and networks to respond rapidly to extreme weather events	2.1.1. No. staff trained to respond to, and mitigate impacts of, climate-related events (by gender) 2.1.2 No. of targeted institutions with increased capacity to minimize exposure to climate variability risks (by type, sector and scale)	~~296,000~~ 304,000 0
Outcome 2: <u>Vulnerable households and communities benefit from improved livelihoods and enhanced resilience through the implementation of nature-based, small-scale infrastructure and adaptive land-use practices aligned with sustainable tourism and agriculture. Vulnerable households and communities benefit from improved livelihoods and enhanced resilience through the implementation of nature-based, small-scale infrastructure and adaptive land-use practices aligned with sustainable tourism and agriculture.</u>	- # of beneficiaries covered by early warning system installation. - # of physical assets established (eco-villages, nursery, water gate). - # of natural resource assets strengthened (reservoir sites, flood-resilient community nature-based infrastructure solutions, embankment stabilization).	Output 1.1: Risk and vulnerability assessments conducted and updated	1.1. No. of projects/programmes that conduct and update risk and vulnerability assessments (by sector and scale) 1.2 No. of early warning systems (by scale) and no. of beneficiaries covered	~~150,000~~ 150,000 0
		Output 4: Vulnerable development sector services and infrastructure assets strengthened in response to climate change impacts, including variability	4.1.1. No. and type of development sector services modified to respond to new conditions resulting from climate variability and change (by sector and scale) 4.1.2. No. of physical assets strengthened or constructed to withstand conditions resulting from climate variability and change (by sector and scale)	~~1,847,000~~ 1,659,000
	- # of households adopting climate-smart agriculture and value-addition practices. - % increase in average income from climate-smart agriculture and value-addition practices. - % of women and youth promoted climate-smart agriculture and value-addition practices.	Output 5: Vulnerable ecosystem services and natural resource assets strengthened in response to climate change impacts, including variability	5.1. No. of natural resource assets created, maintained or improved to withstand conditions resulting from climate variability and change (by type and scale)	~~250,000~~ 250,000 0
		Output 6: Targeted individual and community livelihood strategies strengthened in relation to climate change impacts, including variability	6.1.1. No. and type of adaptation assets (tangible and intangible) created or strengthened in support of individual or community livelihood strategies 6.2.1. Type of income sources for households generated under climate change scenario	~~1,101,000~~ 1,104,000 4,000

Outcome 3: <u>Proven models for community-led, integrated climate adaptation, spanning nature-based solutions, resilient infrastructure, and diversified livelihoods, are documented, disseminated, and adopted for replication and policy integration at sub-national and national levels, including within Proven models for nature-based, community-led adaptation and sustainable green tourism are documented, disseminated, and adopted for replication and policy integration at sub-national and national levels: Siem Reap's sustainable green tourism economy.</u>	- # of knowledge products produced - # of policy platforms integrating lessons - # of learning events conducted - % of female participants in the training events	Output 3.2: Strengthened capacity of national and subnational stakeholders and entities to capture and disseminate knowledge and learning	3.2.1 No. of technical committees/associations formed to ensure transfer of knowledge 3.2.2 No. of tools and guidelines developed (thematic, sectoral, institutional) and shared with relevant stakeholders	<u>468,000</u> 468,000 0
Total output level grant amount				4,208,000

The tables above present the project's alignment with the Adaptation Fund's standardised results framework outcomes and outputs but did not previously include numeric targets for the project-specific indicators in the 'Project Objective Indicator(s)' and 'Project Outcome Indicator(s)' columns.

Table 28 below provides an indicative, quantified target for every project-specific indicator, organised by Objective/Outcome so that the same targets apply consistently to both the objective-level and outcome/output-level tables above (which share largely the same underlying indicators). Targets are grounded in beneficiary, area, and asset figures already established elsewhere in this proposal (Table 9's beneficiary and cost data, Output 2.2's 150-hectare restoration target, Output 2.4's 57-hectare reservoir catchment area, Output 2.5's 12-eco-village target, and the 5 poor settlements/5 forest protection communities that define the project's community scope) not newly invented figures, so that the results framework, Table 27, and the narrative descriptions of each output remain internally consistent. Where a precise unit count depends on detailed engineering design not yet completed at concept stage (for example, the exact number of water gates or early warning stations), this is stated explicitly instead of presented as a firm figure, in line with these being indicative concept-stage targets to be refined at full proposal stage.

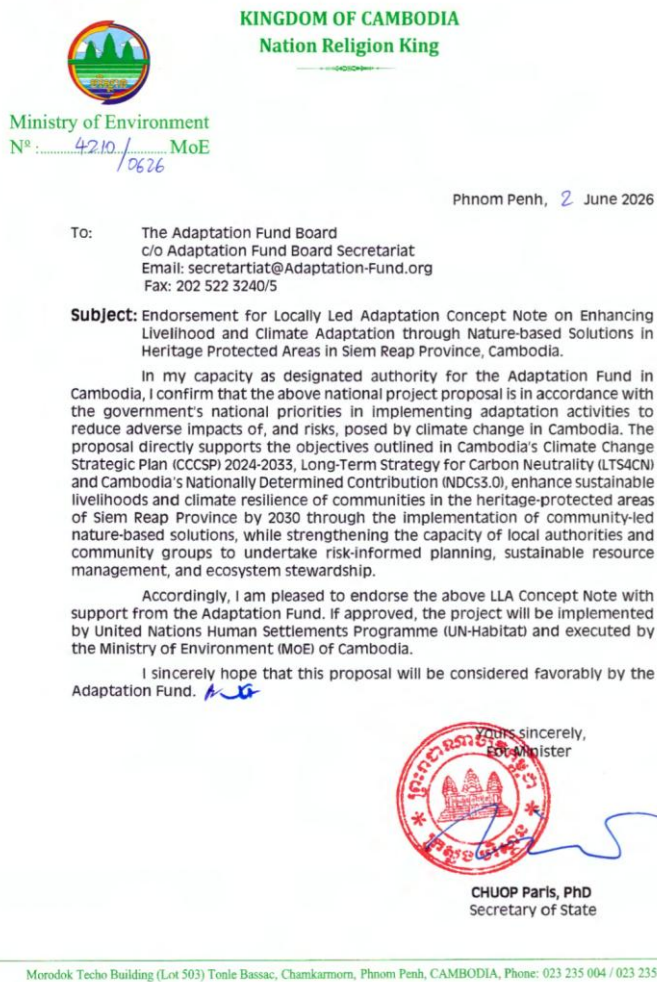
Table 28 Indicative, quantified target for every project-specific indicator

	Project-specific indicator	Indicative target (by project end)
Objective / Outcome (Component) Objective 1 / Outcome 1 (Component 1)	# of institutions integrating climate risk into annual plans	At least 10 Commune/Sangkat councils (covering the 5 poor settlements and 5 forest protection communities) and the 3 District administrations of Krong Siem Reap, Banteay Srei, and Svay Leu
	% of Commune/Sangkat/District staff with improved capacity (by gender and ethnicity)	At least 70% of trained staff demonstrating improved capacity, of whom at least 40% women
	# of trained people (by gender)	At least 388 people trained (116 women), consistent with Output 1.2 in Table 9
	# of Commune/Sangkat/District plans integrating climate risk based on vulnerability assessments	At least 10 Community Action Plans and their corresponding CIP/CDP updates (one per targeted poor settlement/forest protection community), per the Table 13 institutional pathway
	% of women participating in capacity-building trainings	At least 40%
Objective 2 / Outcome 2 (Component 2)	% of population receiving disseminated early warning	100% of Output 2.7's coverage population: 24,723 unique direct beneficiaries; 276,258 indirect, per Table 9
	# of physical infrastructure / assets established	At least 12 eco-villages (Output 2.5), 1 regional nursery (Output 2.2), and 1 reservoir rehabilitation site (Output 2.3); precise unit counts for water retention/gate (Output 2.4), sewerage (Output 2.6), and early warning (Output 2.7) infrastructure to be confirmed through detailed engineering design at full proposal stage
	# of ecosystem services / natural resource assets maintained or improved	At least 207 hectares (150 ha forest and watershed restoration under Output 2.2; 57 ha reservoir catchment rehabilitation under Output 2.4)

	# of households adopting climate-smart agriculture and value-addition practices	At least 2,476 direct beneficiaries (1,224 women), consistent with Output 2.1 in Table 9
	% increase in average income from climate-smart agriculture and value-addition practices	At least 15% among adopting households
	% of women and youth among climate-smart agriculture participants	At least 50%
Objective 3 / Outcome 3 (Component 3)	# of knowledge products produced (hard and soft copies)	At least 8 knowledge products (case studies, toolkits, policy briefs, training materials) over the project period
	# of policy platforms integrating lessons	At least 2 (provincial and national coordination platforms, including the Technical Working Group on Climate Change referenced under Criterion 8)
	# of learning/knowledge-exchange events conducted	At least 6 over the project period
	# of participants in learning events / % female participants	At least 500 participants (250 women), consistent with Output 3.1/3.2 in Table 9; at least 40% women among all training-event participants

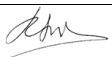
PART IV: ENDORSEMENT BY GOVERNMENT AND CERTIFICATION BY THE IMPLEMENTING ENTITY

A. Record of endorsement on behalf of the government (Please find the official endorsement letter from Ministry of Environment below)



B. Implementing Entity certification

I certify that this proposal has been prepared in accordance with guidelines provided by the Adaptation Fund Board, and prevailing National Development and Adaptation Plans (Cambodia Climate Change Strategic Plan and updated Nationally Determined Contribution) and subject to the approval by the Adaptation Fund Board, commit to implementing the project/programme in compliance with the Environmental and Social Policy of the Adaptation Fund and on the understanding that the Implementing Entity will be fully (legally and financially) responsible for the implementation of this project/programme.

 Raf Tuts Director, Global Solutions Division UN-Habitat	
Date: 24/06/2026	Tel. +254-20-762-3736 and email: raf.tuts@un.org
Project Contact Person: Odicea Angelo Barrios, Programme Management Officer, Human Settlements, UN-Habitat Regional Office for Asia and the Pacific	
Tel. (81-92) 724-7121 And Email: odicea.angelobarrios1@un.org	

Annex 1: Meetings with stakeholders during the Pre-Concept Note Phase

Date	Stakeholder	Venue	Objective	Outputs
16 June 2025	Representatives from the Department of Environment Attendees: 9 (Female: 2)	Provincial Department of Environment	Consultation on the current challenges and needs of communities in Siem Reap Province, including preparation for community meetings, site investigations, and data collection.	- Discussed overview, key challenges, and needs of the Kulen Protected Area. - Recommendation for the project's focus on livelihoods improvement, innovative ecotourism activities, capacity-building, and climate-resilient agriculture.
17 – 18 June 2025	Representative from Siem Reap City and Sangkats in Siem Reap City Attendees: 14 (Female: 3)	Siem Reap City Hall and Proposed Site	Consultation on existing challenges and community needs, especially in the APSARA zone of Siem Reap Municipality.	- Discussed overview, key challenges, and needs of Siem Reap Province and 7 Sangkats in Siem Reap City. - Obtained information of climate-vulnerable settlements and their challenges and needs (e.g. infrastructure, livelihood, ecotourism values, water access, and wastewater management).
17 June 2025	Representatives from the district administration, communes, and villages Attendees: 15 (Female: 2)	Banteay Srei District Hall and site	Consultation on the existing challenges and needs of communities in Banteay District, especially in Kulen Protected Area.	- Discussed overview, key challenges, and needs of Banteay Srei District. - Obtained their key challenges and recommendations for the project to improve, such as agricultural irrigation, water access, agricultural techniques, ecotourism values, mountainous trails, tree replantation.
19 June 2025	Representatives from communes, communities, and Department of Environment Attendees: 14 (Female: 2)	Kulen Community	Consultation on the challenges and needs of communities in Kulen Protected Area	- Understanding of Kulen Community's background, history, challenges, and the needs. - Recommendation for the project to focus on water access, capacity-building on agricultural skills, waste management, eco-tourism marketing.

Annex 2: Meetings with stakeholders during the Concept Note Phase

Date	Stakeholder	Venue	Objective	Outputs
06 May 2026	Representatives from Siem Reap Provincial Administration Attendees: 4 (Female:1)	Provincial Hall	Consultation on proposed outcomes, outputs in Siem Reap Province, including project gender responsive measures.	- Discussed community challenges, priorities, and needs aligned with the proposed project outcomes and outputs. - Collected missing data and identified gender-responsive measures and target poor settlements. - Recommended project focus areas including livelihood improvement, innovative ecotourism, climate-resilient agriculture, capacity building, and early warning systems.
06 May 2026	Representative from APSARA Authority Attendees: 5 (Female: 2)	APSARA Authority Office	Consultation on feasibility to intervene the small-scale infrastructure improvement in APSARA area such as output 2.6 and future engagement.	- Obtained insights into ongoing activities of the APSARA Authority. - Agreed on proposed outcomes and outputs, noting that small-scale infrastructure is feasible with regular engagement from the authority.
06 May 2026	Representatives from Siem Reap City, Svay Leu Districts, Banteay Srei Districts and Relevant Communes/Sangkats Attendees: 18 (Female: 7)	Siem Reap City Hall	Consultation on proposed outcomes, outputs in Siem Reap Province and analysis of climate change impacts and corresponding gender responsive measures.	- Discussed community priorities, challenges, and needs, particularly for women and vulnerable groups including persons with disabilities, children, and the elderly. - Clarified the number of target beneficiaries and gender-disaggregated data.
18 May 2026	Representatives from Ministry of EnvironmentMoE, Provincial administration provincial administration relevant provincialand departments, city and districts, communes and Sangkats, academia, non-governmental organizations and civil societiesNGO/CSO, and private sector Attendees: 38 (Female: 8)	Siem Reap Provincial Hall	Consultation on proposed outcomes, outputs in Siem Reap Province and analysis of climate change impacts and corresponding gender responsive measures and eco-tourism.	- Agreed on proposed outcomes and outputs among relevant stakeholders. - Group discussion on gender assessment - Consulted on eco-tourism for the project concept note.
19 May 2026	Target commune/Sangkat, villages and Community members <u>Attendees: 25 (female -10)</u>	Target Sites (Sangkat Norkor Thum, Tbaeng Commune, and Khnang Phnum Commune	Verification of specific measurable indicators for relevant outputs and gender assessment	- Updated relevant data - Confirmed the gender issues in relation to climate change at the community level.

Annex 3: Preliminary Gender Assessment Report

This preliminary ~~gender assessment~~ Gender Assessment has been developed to provide a situational analysis of gender issues in the local context of Cambodia. Based on ~~the empirical evidence in the form of~~ qualitative and quantitative ~~data and analysis~~ ~~forevidence on~~ gender roles, activities, needs, ~~and available opportunities and~~, challenges ~~of, and~~ risks, ~~this assessment will try to~~ ~~identify~~ it identifies the ~~gender-differentiated impacts of climate change~~, as well as the needs and capacities ~~for action~~ of different sub-groups of ~~men and women and men~~. It ~~will identify what corresponding~~ also identifies ~~gender-responsive measures have been taken to~~ address ~~identified~~ these differences and ~~to ensure that women and men have equal opportunities to build resilience, address their differentiated vulnerabilities, and increase~~ strengthen their ~~adaptive capacity to adapt to climate change impacts~~ through the project implementation. Furthermore, ~~this~~ the assessment ~~will ensure~~ ensures adherence to the Adaptation Fund Gender Policy.

This Gender Assessment is preliminary and will be revisited and expanded during the full proposal development ~~phase~~ stage to ~~ensure~~ inform the ~~project's~~ project's results framework, budget, and environmental and social safeguards ~~approach are designed in a way, ensuring that the project responds to~~ meet the differentiated adaptation needs of ~~women and men and women, and to ensure that the project does not discriminate between men and women or contribute in any other way to gender inequality.~~ The document will adopt an iterative process and ~~assessment~~ will be updated ~~regularly during throughout~~ the project lifecycle.

It should be noted that a ~~A~~ comprehensive Gender Action Plan and a set of Gender Targeted Indicators ~~gender-targeted indicators~~ will be developed during the full proposal stage. ~~These tools will explicitly outline gender-responsive measures designed through consultations with relevant government agencies, women's cooperatives, and community-based organisations to promote equality and women's leadership within project decision-making bodies, as well as to~~ gender equality, strengthen ~~women's~~ women's leadership, and enhance resilience ~~against~~ to climate change-related risks throughout project implementation. These tools will be strengthened through consultation and feedback from representatives from specialist government ministries for women and youth and gender equality agencies, as well as local women's cooperatives and many community-based organizations.

PREPARATORY CONSULTATION PROCESSES

Field missions and stakeholder consultations were conducted in May 2026. ~~These missions utilized using~~ a gender-sensitive methodology to engage diverse local stakeholders, ~~specifically targeting particularly~~ women, youth, and persons with disabilities. The objective was to assess gender-differentiated climate vulnerabilities ~~and~~, identify ~~tailored~~, gender-responsive adaptation measures. ~~This ensures the project promotes, promote~~ equitable access to ~~project~~ benefits, and ~~adheres~~ ensure adherence to the ~~Adaptation Fund's~~ principles of social inclusion and gender equality. ~~All relevant sub-national stakeholders, including men, women, youth, persons with disabilities, and the elderly, were invited to participate. Despite efforts to achieve at least 30% female participation, representation of women and other marginalised groups remained limited due to the male-dominated context of government institutions, local authorities, and community committees.~~

It should be noted that the project formulation team invited all relevant sub-national stakeholders, including men, women, and the potentially excluded marginalized populations such as people with disabilities, youth, and the elderly, to the stakeholder consultations. Although the team tried to have at least 30 per cent of female participants in all meetings, there were limited female participants, as well as the potentially marginalized populations. The main reason for this trend is the male-dominated context of government institutions, local authorities, and community committees. Additional consultations will be implemented during the full proposal stage to identify the detailed gender differentiated climate impacts and corresponding gender-responsive measures. This information will be the fundamental source to prepare the project-specific Gender Action Plan, including gender-targeted indicators.

Stakeholder Consultations: 6th May 2026

Three meetings with relevant stakeholders were conducted to clarify the targeted beneficiaries including feasible female ones and to confirm the project sites and surrounding environments. The results provided full support on proposed outcomes and outputs within the needs of people in Siem Reap province, in particular on how the project is designed to give more ownership to the community levels. Though, there was advised to further gather relevant stakeholders and discuss together.



Meeting with representatives from Provincial Administration



Meeting with representatives from APSARA Authority



Meeting with district, city, commune, and Sangkat representatives

Stakeholder Consultation: 18th May 2026

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Upon the recommendation drawn from the last mission, Siem Reap Provincial Administration, UN-Habitat, and Ministry of Environment, MoE co-organized a consultative meeting on 18 May 2026. 38 participants (female 20%) gathered to provide inputs on proposed outcomes and outputs in corresponding to the target sites and to gather relevant information as well as the discussion on the adverse impacts from climate change on different groups of beneficiaries and the required prevention, as summarized below table.



SUMMARY RESULTS

Climate change impacts in Siem Reap are multidimensional, affecting cultural heritage, local economies, ecosystem, and social well-being. Heatwaves and droughts reduce rice yields while intense rainfall events damage roads, homes, and occasionally heritage structures (ADB, 2022).

Combining the desk reviews and group discussions during the meeting on 18 May 2026, the impacts and responsive adaptive measures in Siem Reap province are summarized below:

Key stakeholder Category	Gender-Differentiated Climate Impacts	Tailored Gender-Responsive Adaptation Measures
Male	- Income loss due to their dependency on climate-vulnerable agricultural practices. - Migration due to reduced incomes from agriculture	- Capacity-building activities for livelihood diversification and resilient agriculture techniques. - Advocacy for shared unpaid responsibilities at home.
Women	- Income loss due to their dependency on climate-vulnerable agricultural practices and informal tourism services. - Less access to information, market, public facilities, and livelihood resources due to floods and limited accessibility. - Exposure to gender-based violence (GBV) risks and increased unpaid care and domestic work during climate-related disasters. - Adverse effects on women's health, food security, and mental well-being, especially among rural and poor households.	- Capacity-building activities for livelihood diversification and impacts/preparedness. - Accessible meeting locations and times by considering women's daily routines and transportation and responsibilities, childcare services provision. - Consider transportation and childcare services might have to be provided for women, who are often less mobile, in order to attend meetings - Strengthen women's leadership, access to clean energy, climate finance, technology, and climate information - Gender-responsive climate policies to ensure women's equal participation in climate decision-making, adaptation planning, disaster risk reduction, and green economic opportunities.
Youth/ Children	- Absence from schools due to limited accessibility and lacks adaptive measures at schools. - Risk of food insecurity and clean drinking water. - Health issues/ diseases due to insufficient WASH facilities (e.g. latrines without a proper septic tank). - Risk of death from flooding and health issues from flooding/extreme heat	- Provide WASH facilities at the climate-vulnerable communities. - Improve the school access routes resilient to flooding. - Retrofitting school buildings and homes to climate-resilient (e.g. extreme heat, flooding, and strong winds) - Public awareness for preparedness for disaster risk reduction measures and preparedness
People with disabilities	Difficulty accessing clinics and medicines due to limited accessibility and climate-vulnerable pathways.	Improve pathways and road segments with proper drainage systems, including garbage trapping systems, to avoid/minimize flooding risks.
Private Sector (especially Tourism service)	- Increased price of agricultural products as the main inputs for service delivery - Cancelled trips affected by extreme climate events	- Develop resilient supply chain - Promote the discount rate for tourists during affected seasons

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KINGDOM OF CAMBODIA
Nation Religion King

Ministry of Environment

N^o : 4210 / MoE
0626

Phnom Penh, 2 June 2026

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

Subject: Endorsement for Locally Led Adaptation Concept Note on Enhancing Livelihood and Climate Adaptation through Nature-based Solutions in Heritage Protected Areas in Siem Reap Province, Cambodia.

In my capacity as designated authority for the Adaptation Fund in Cambodia, I confirm that the above national project proposal is in accordance with the government's national priorities in implementing adaptation activities to reduce adverse impacts of, and risks, posed by climate change in Cambodia. The proposal directly supports the objectives outlined in Cambodia's Climate Change Strategic Plan (CCCSP) 2024-2033, Long-Term Strategy for Carbon Neutrality (LTS4CN) and Cambodia's Nationally Determined Contribution (NDCs3.0), enhance sustainable livelihoods and climate resilience of communities in the heritage-protected areas of Siem Reap Province by 2030 through the implementation of community-led nature-based solutions, while strengthening the capacity of local authorities and community groups to undertake risk-informed planning, sustainable resource management, and ecosystem stewardship.

Accordingly, I am pleased to endorse the above LLA Concept Note with support from the Adaptation Fund. If approved, the project will be implemented by United Nations Human Settlements Programme (UN-Habitat) and executed by the Ministry of Environment (MoE) of Cambodia.

I sincerely hope that this proposal will be considered favorably by the Adaptation Fund. 

Yours sincerely,
For Minister



CHUOP Paris, PhD
Secretary of State

Revised PFG Submission Form¹ (additions in red)
Project Formulation Grant (PFG)

Submission Date: 24th Jun 2026

Adaptation Fund Project ID:

Country/ies:

Cambodia

Title of Project/Programme:

Strengthening Community-Led Climate Adaptation and Resilient Livelihoods in the Angkor-Phnom Kulen Heritage Landscape, Cambodia ~~Enhancing Livelihood and Climate Adaptation through Nature-based Solutions in Heritage Protected Areas in Siem Reap Province, Cambodia~~

Type of IE (NIE/RIE/MIE):

Multilateral Implementing Entity

Implementing Entity:

United Nations Human Settlements Programme (UN-Habitat)

Executing Entity/ies:

UN-Habitat ~~in cooperation with Ministry of Environment, Cambodia~~

A. Project Preparation Timeframe

Start date of PFG	October 2026
Completion date of PFG	April 2027

B. Proposed Project Preparation Activities (\$)

The US\$120,000 of a Project Formulation Grant (PFG) will support the development of a Full Project Proposal of Locally Led Adaptation (LLA). Rather than a conventional top-down formulation process, this PFG embodies a business-unusual approach: one that devolves decision-making authority to the lowest appropriate level, addresses the structural inequalities faced by women, youth, persons with disabilities and forest-dependent communities, and invests in the institutional capabilities of local actors from the outset. Preparation activities will be grounded in bottom-up, participatory processes that integrate local and traditional knowledge with scientific evidence, ensuring that the full proposal reflects the lived realities and self-defined priorities of the most vulnerable communities in Krong Siem Reap, Svay Leu, and Banteay Srei districts. All consultation and field assessment processes will apply inclusive design principles, accounting for the care responsibilities of women, the geographic remoteness of forest protection communities, and the need for Free, Prior and Informed Consent (FPIC) processes. The grant will fund targeted stakeholder consultations, field missions, detailed technical studies, log frame and results framework development, an environmental and social impact assessment, and full proposal consolidation – all implemented in close collaboration with the Department of Climate Change under the Ministry of Environment and with community institutions as active partners.

List of Proposed Project Preparation Activities	Output of the PFG Activities	US\$ Amount	Budget note ²
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¹ As presented in AFB/PPRC.33/40 Annex 1.

² The proposal should include a detailed budget with budget notes indicating the break-down of costs at the activity level. It should also include a budget on the Implementing Entity management fee use.

Inclusive stakeholder consultations and co-design workshops to validate and strengthen the project design, locally led implementation arrangements, and governance structures, with dedicated sessions for women, youth, persons with disabilities and forest communities, scheduled outside care hours and held in accessible locations.	Workshop reports; validated and community endorsed project design; documented CIA structures; disaggregated participation records	15,600	Participatory co-design workshops held across target districts in Siem Reap, co-facilitated with Ministry of Environment and local community institutions. Separate sessions for women and vulnerable groups will be scheduled to remove participation barriers and ensure their priorities meaningfully shape the project design.
Inclusive field missions to target communities to validate project design, institutional capacity assessment of local stakeholders, and document local and traditional knowledge with on-site consultations for remote and forest-dependent communities, dedicated engagement with women outside care hours	Field mission report; institutional capacity assessment; documented local and traditional ecological knowledge; FPIC screening findings; gender-disaggregated community priorities	20,000	UN-Habitat and MoE teams will conduct field visits to the project locations. Government presence managed sensitively where communities require independent spaces for open dialogue
Detailed analysis and co-development of project components, outputs, and activities explicitly aligned with the eight LLA principles - embedding devolved decision-making structures, inclusive governance arrangements, gender-responsive design, and locally led implementation mechanisms across all components, and integrating findings from community consultations, field missions, and local knowledge documentation	Well described and LLA aligned project components, outputs, and activities; CIA frameworks and community governance structures defined; gender-responsive measures embedded across outputs	20,000	Desk work led by experts in close coordination with community councils, and the Ministry of Environment. Analysis will draw directly from consultation and field mission findings to ensure components reflect locally defined priorities, moving beyond standard project design towards a community-driven adaptation framework.
Development of community-informed Log-frame, results framework, and budget that	Detailed LLA-aligned project Log-frame; results framework	15,000	Developed iteratively with community institutions, commune

embeds gender-responsive indicators, and flexible adaptive management mechanisms ensuring indicators are co-developed with local actors, disaggregated by gender, age, ethnicity and disability, and that budget allocations reflect the direct flow of resources to community-level institutions	with locally defined resilience indicators; disaggregated indicator set; Gender Action Plan indicators; community-based M&E framework and budget		councils, and Ministry of Environment. Budget will transparently demonstrate direct resource flows to local actors consistent with LLA Principles 3 and 7.
Participatory Environmental and Social Impact Assessment (ESIA) integrating community-led risk identification, gender-disaggregated vulnerability analysis, FPIC process for forest protection communities, and Gender Baseline Assessment for target districts	ESIA report; Gender Baseline Assessment, FPIC process document; gender-disaggregated vulnerability findings	25,000	ESS and gender experts conducting ground assessments. FPIC and Gender Baseline Assessment findings will directly inform safeguards design and gender-responsive measures in the full proposal.
Consolidation and finalization of the full LLA project proposal, integrating all formulation findings into a coherent, community-validated submission aligned with Adaptation Fund requirements	Full project proposal developed and consultation meeting minutes	15,000	Final consolidation workshop bringing together UN-Habitat, Ministry of Environment, and community representatives to validate the full proposal before submission to the Adaptation Fund.
Implementing Entity's Management Fee (8.5%)		9,400	Oversight and supervision of PFG activities to ensure quality, compliance with Adaptation Fund requirements, and adherence to LLA principles throughout the full proposal development.
Total Project Formulation Grant		120,000	

The requested budget will fund a series of preparatory activities designed to develop a high-quality, context-specific full proposal aligned with the Adaptation Fund's objectives and principles. Each activity is sequenced to build progressively on community voice and local knowledge, from inclusive consultations and field missions that surface locally defined priorities, through technical

analysis and safeguards assessments grounded in those findings, to a final proposal that communities have actively shaped and validated. This is a business-unusual approach that places the most vulnerable communities including women, forest-dependent households, and persons with disabilities at the centre of how this project is designed from the outset.

1. Inclusive co-design workshops to validate the concept note and ensure community priorities shape the full proposal formulation.

The consultative stakeholders' workshops for validating the project design and gathering inputs for full proposal development are critical for ensuring that the project aligns with local needs and conditions, consistent with devolving decision-making to the lower appropriate level. There will be co-design spaces where community members, local government officials, NGOs, technical experts, and other relevant stakeholders collectively shape the project implementation arrangements, governance structures, and investment priorities.

Consistent with addressing structural inequalities, dedicated sessions will be organised separately for women, youth, and persons with disabilities, scheduled outside care hours and domestic responsibilities to remove participation barriers. Forest protection community members will be engaged at their locations rather than district centres, ensuring remoteness does not exclude their voice. Where open dialogue requires it, sessions will be managed to allow communities to speak freely without government presence.

Participation will be tracked and reported in a disaggregated manner by gender, age, ethnicity, and community group, ensuring that the composition of decision-making reflects the communities the project will serve. Outputs from all sessions will be documented in Khmer and shared back with participants, consistent with transparency and downward accountability.

2. Conducting field visits to document local knowledge, assess institutional capacity, and initiate FPIC screening across all three target districts.

The field visits will assess climate vulnerabilities, environmental conditions, and local adaptation needs while also documenting local and traditional knowledge held by communities, particularly the five forest protection communities, integrating this alongside evidence into project design.

These visits will be designed to reach the most excluded groups on their own terms. Women's consultations will be scheduled outside care hours. Visits to forest protection communities and informal settlements will be conducted on-site, recognizing that remoteness should not exclude the most vulnerable.

Field missions will also assess the institutional capacity of Community Development Councils, forest protection communities, and commune councils to lead implementation, and initiate FPIC screening for forest protection communities. All findings feed directly into the ESIA, Gender Baseline Assessment, and component design.

3. Analysis and co-development of project components, outputs and activities.

Building directly on findings from stakeholder workshops and field missions, this activity will translate community-defined priorities and local knowledge into a coherent set of project components, outputs, and activities. The analysis will ensure that each component reflects the structural realities and adaptation needs identified by the most vulnerable groups in target communities.

Experts will work in close coordination with community institutions, commune councils, and the Ministry of Environment to define CIA frameworks, community governance structures, and gender-responsive measures across all outputs and activities. FPIC process requirements identified during field missions will be integrated into the relevant components. The result will be a project architecture that is locally grounded, socially inclusive, and technically coherent, ready to feed directly into log-frame and results framework development.

4. Development of project log frame, results framework, and budget.

The project log frame and results framework will involve defining the project's goal and objectives, developing a logical framework matrix capturing the hierarchy of results (impact, outcomes, outputs, activities, inputs), establishing indicators and means of verification, identifying assumptions and risks, visually representing the logical linkages between project components, engaging stakeholders for validation, and implementing a monitoring and evaluation plan to track progress and make necessary adjustments, ensuring the project is well designed, effectively managed, and capable of delivering sustainable benefits to vulnerable communities. The process will ensure that indicators reflect locally defined measures of resilience rather than donor-driven metrics alone. Indicators will be disaggregated by gender, age, ethnicity, and disability, and will incorporate Gender Action Plan targets and FPIC milestones where relevant, consistent with LLA principle 2.

Developing a detailed and transparent project budget will involve several key steps to ensure comprehensive financial planning and resource allocation, with CIA-linked financing architecture reflecting the project's commitment to accessible and predictable funding for local actors. First, this activity will detail and categorize all necessary components of the project, such as baseline data collection, capacity building, community engagement, infrastructure development, monitoring, and evaluation. Each category will be broken down into specific activities, with estimated costs for personnel, materials, equipment, travel, and administrative expenses. A community-based M&E framework will be embedded from the outset, supporting adaptive management and downward accountability throughout implementation.

5. Environmental and Social Impact Assessment (ESIA) of the proposed project.

The Environmental and Social Impact Assessment (ESIA) will evaluate potential environmental and social impacts of the project to ensure that project investments do not adversely affect ecosystems, heritage landscapes, or vulnerable communities. This assessment will cover natural resources, biodiversity, water systems and land use, with findings informing mitigation strategies and safeguard design in the full proposal.

A Gender Baseline Assessment will be conducted across target districts to establish gender-differentiated climate vulnerabilities, access to resources, and participation constraints, providing the evidential foundation for the projects Gender Action Plan. A FPIC process will be initiated for forest protection communities to ensure their rights are fully respected in project design.

All assessments will be conducted in a participatory manner, with findings validated by community institutions and local authorities before feeding into the full proposal.

6. Consolidation and finalisation of the full LLA project proposal.

The full project proposal will consolidate all findings from preceding formulation activities, community consultations, field missions, component analysis, log frame development, and ESIA,

into a coherent, technically rigorous, and community-validated submission that demonstrates adherence to the LLA Principles throughout.

The proposal will clearly articulate the project's theory of change, results framework, budget architecture, environmental and social safeguards, and gender-responsive measures, drawing directly from the Gender Baseline Assessment, FPIC process findings, and locally defined resilience indicators developed during formulation. It will transparently demonstrate how decision-making authority, resources, and accountability are devolved to community institutions, and how the CIA mechanism enables direct and accessible financing to local actors.

A final consolidation workshop will bring together UN-Habitat, the Ministry of Environment, community representatives, and key local stakeholders to review and validate the proposal before submission. This step ensures that the communities of Krong Siem Reap, Svay Leu, and Banteay Srei recognise their priorities, knowledge, and governance arrangements reflected in the final document, consistent with transparency, accountability, and collaborative action.

The proposal will be submitted in full compliance with Adaptation Fund requirements, the Environmental and Social Policy, and the Gender Policy.

Implementing Entity

This request has been prepared in accordance with the Adaptation Fund Board's procedures and meets the Adaptation Fund's criteria for project identification and formulation.

Implementing Entity Coordinator, IE Name	Signature	Date (Month, day, year)	Project Contact Person	Telephone	Email Address
Raf Tuts		06/24/2026	Odicea Angelo Barrios	(81-92) 724-7121	odicea.angelobarrios1@un.org

STAKEHOLDER CONSULTATION REPORT

Locally Led Adaptation (LLA) Concept Note — Adaptation Fund

“Enhancing Livelihood and Climate Adaptation through Nature-based Solutions in Heritage Protected Areas in Siem Reap Province, Cambodia”

Prepared by UN-Habitat in cooperation with the Ministry of Environment (MoE)
Concept Note Phase Consultations: 05–19 May 2026

1. Introduction

Considering the successful implementation of the first Adaptation Fund project that ended in December 2025, and the call of the Adaptation Fund for new project proposals, UN-Habitat in cooperation with the Ministry of Environment (MoE) started to draft two concept notes targeting Kampong Speu’s protected areas and Siem Reap’s Angkor areas.

Additional data collection is vital to gather sufficient evidence to identify the appropriate target beneficiaries and to design specific project components and activities tackling the existing social challenges.

Dedicated specifically to the compilation of the concept note in Siem Reap, entitled “Enhancing Livelihood and Climate Adaptation through Nature-based Solutions in Heritage Protected Areas in Siem Reap Province, Cambodia”, the UN-Habitat CO team - including Mr. Sok Vanna, Country Programme Manager, and Ms. Piseth Sensamras, Project Officer, with the support of Mr. Jun Fujihira, Resource Person - conducted a field mission to Siem Reap province in order to consult with local authorities, collect relevant information and data, understand challenges, and capture their requirements in order to prepare the proposed concept notes.

2. Objectives

The field mission in Siem Reap province was conducted on 05–07 May 2026 with the objectives:

- To meet relevant local authorities and communities to understand their challenges, needs, and ongoing interventions.
- To collect relevant information and data, including maps and photos.
- To draft the LLA concept note for the future Adaptation Fund projects.

The consultations sit within a broader, inclusive and iterative process led by the MoE with technical support from UN-Habitat. Consultation findings directly informed the selection of priority adaptation investments - including water retention, ecosystem restoration, and eco-tourism-based livelihood diversification - and engaged government officials, technical experts, and forest management community representatives at national, sub-national, and local levels. Initial consultations began in mid-June 2025 (Pre-Concept Note Phase) and continued through mid-May 2026 (Concept Note Phase).

3. Summary of Concept Note Phase Consultations

The table below records the stakeholder meetings held during the Concept Note Phase. It covers the three consultations held during the 5–7 May 2026 field mission, together with the **18 May 2026 multi-stakeholder validation workshop** and the **19 May 2026 community-level verification** at the target sites.

Date	Stakeholder	Venue	Objective	Outputs
06 May 2026	Representatives from Siem Reap Provincial Administration	Provincial Hall	Consultation on proposed outcomes and outputs in Siem Reap	• Discussed community challenges, priorities, and needs aligned with the

Date	Stakeholder	Venue	Objective	Outputs
	Attendees: 4 (Female: 1)		Province, including project gender-responsive measures.	proposed project outcomes and outputs. - Collected missing data and identified gender-responsive measures and target poor settlements. - Recommended project focus areas including livelihood improvement, innovative ecotourism, climate-resilient agriculture, capacity building, and early warning systems.
06 May 2026	Representative from APSARA Authority Attendees: 5 (Female: 2)	APSARA Authority Office	Consultation on the feasibility to intervene on small-scale infrastructure improvement in the APSARA area, such as Output 2.6, and on future engagement.	- Obtained insights into ongoing activities of the APSARA Authority. - Agreed on proposed outcomes and outputs, noting that small-scale infrastructure is feasible with regular engagement from the authority.
06 May 2026	Representatives from Siem Reap City, Svay Leu District, Banteay Srei District and relevant Communes/Sangkats Attendees: 18 (Female: 7)	Siem Reap City Hall	Consultation on proposed outcomes and outputs in Siem Reap Province and analysis of climate change impacts and corresponding gender-responsive measures.	- Discussed community priorities, challenges, and needs, particularly for women and vulnerable groups including persons with disabilities, children, and the elderly. - Clarified the number of target beneficiaries and gender-disaggregated data.
18 May 2026	Representatives from the Ministry of Environment, provincial administration, relevant provincial departments, city and districts, communes and Sangkats, academia, non-governmental organizations and civil society, and the private sector Attendees: 38 (Female: 8)	Siem Reap Provincial Hall	Consultation on proposed outcomes and outputs in Siem Reap Province and analysis of climate change impacts and corresponding gender-responsive measures and eco-tourism.	- Agreed on proposed outcomes and outputs among relevant stakeholders. - Group discussion on gender assessment. - Consulted on eco-tourism for the project concept note.
19 May 2026	Target commune/Sangkat, villages and community members Attendees: 25 (Female: 10)	Target sites (Sangkat Nokor Thum, Tbaeng Commune, and Khnang Phnum Commune)	Verification of specific measurable indicators for relevant outputs and gender assessment.	- Updated relevant data. - Confirmed the gender issues in relation to climate change at the community level.

Source: Annex 2, Concept Note (Concept Note Phase consultations).

4. Highlights from the Field Mission (05–07 May 2026)

As scheduled in Annex A, the mission went smoothly and captured the following key takeaways for concept note formulation.

4.1 Meeting with Siem Reap Provincial Officials

Held at the Provincial Hall, the meeting with Mr. Yun Line, Deputy Governor of Siem Reap Province, and representatives from the investment planning unit of the provincial administration was conducted on 06 May 2026. Mr. Sok Vanna kicked off the meeting with an introduction to UN-Habitat’s experience implementing Adaptation Projects I and II in the coastal provinces of Cambodia and continued with an overview of the concept note “Enhancing Livelihood and Climate Adaptation through Nature-based Solutions in Heritage Protected Areas in Siem Reap Province, Cambodia”, including its objectives, key outcomes, and outputs. The provincial representatives acknowledged UN-Habitat and MoE efforts and highlighted the updated data required for concept note formulation. Overall, the proposed outcomes and outputs are relevant, and the province suggested the following specific priorities for consideration:

- The informal settlements are mostly scattered across Siem Reap City, which the project shall target to enhance their climate resilience and livelihood. As detailed in Annex C, there are 1,837 households — equivalent to 8,527 people — living across 146 locations in the city.
- Lightning strike is the most critical disaster that has killed people; the project shall further study this and potentially seek community-led investment.
- Diversification of tourism services should be enhanced under thorough assessment, aiming to strengthen livelihood.

4.2 Meeting with APSARA Authority Officials

The meeting with APSARA Authority Officials was held mainly to confirm whether the potential interventions are feasible in the APSARA protected area, in particular:

- **Output 2.6:** Flood-resilient community nature-based infrastructure solutions, including sewerage and eco-wastewater systems, constructed or improved in vulnerable settlements in Sangkat Nokor Thom. The need is confirmed, and it is recommended to continue consultation with APSARA to ensure the construction follows the requirements.
- Other capacity-building and livelihood-improvement activities shall be closely engaged with the APSARA Authority.

4.3 Meeting with Municipal/District Officials and Commune/Sangkat Representatives

The meeting was organized at the Siem Reap City Hall with representatives from Siem Reap Municipality, Svay Leu and Banteay Srei Districts, and Sangkat/Commune representatives. Overall, the proposed outcomes and outputs are relevant to enhancing community adaptive capacity.

5. Key Information to be Incorporated into the Concept Note

The information collected during the mission is to be incorporated into the concept note. The figures highlighted in yellow indicate the specific values to be inserted at the referenced page. The final column records completion status (Y = incorporated).

#	Page	Missing figures	Completion (Y/N)																														
1	7	According to the most recent administrative data, these three districts have a combined population of 376,850 residents, comprising 189,577 females and 187,273 males.	Y																														
2	13	In particular, soft measures were deliberately designed to reinforce and sustain hard investments, which accounted for a substantial share of the overall budget, 12 per cent.																															
3	14	A substantial portion of the total project budget, 63 per cent, is allocated to Component 2, which focuses on climate-resilient infrastructure and livelihood promotion. <i>* Same as above</i>																															
4	15	Please kindly add the estimation of each output referring to each outcome budget described in the pre-CN. <table><tr><td>Output 1.1</td><td>US\$ 96,000</td></tr><tr><td>Output 1.2</td><td>US\$ 85,000</td></tr><tr><td>Output 1.3</td><td>US\$ 116,000</td></tr><tr><td>Output 1.4</td><td>US\$ 95,000</td></tr><tr><td>Output 1.5</td><td>US\$ 188,000</td></tr><tr><td>Output 2.1</td><td>US\$ 541,000</td></tr><tr><td>Output 2.2</td><td>US\$ 250,000</td></tr><tr><td>Output 2.3</td><td>US\$ 450,000</td></tr><tr><td>Output 2.4</td><td>US\$ 699,000</td></tr><tr><td>Output 2.5</td><td>US\$ 560,000</td></tr><tr><td>Output 2.6</td><td>US\$ 510,000</td></tr><tr><td>Output 2.7</td><td>US\$ 150,000</td></tr><tr><td>Output 3.1</td><td>US\$ 205,000</td></tr><tr><td>Output 3.2</td><td>US\$ 156,000</td></tr><tr><td>Output 3.3</td><td>US\$ 107,000</td></tr></table>	Output 1.1	US\$ 96,000	Output 1.2	US\$ 85,000	Output 1.3	US\$ 116,000	Output 1.4	US\$ 95,000	Output 1.5	US\$ 188,000	Output 2.1	US\$ 541,000	Output 2.2	US\$ 250,000	Output 2.3	US\$ 450,000	Output 2.4	US\$ 699,000	Output 2.5	US\$ 560,000	Output 2.6	US\$ 510,000	Output 2.7	US\$ 150,000	Output 3.1	US\$ 205,000	Output 3.2	US\$ 156,000	Output 3.3	US\$ 107,000	
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Output 3.3	US\$ 107,000																																
5	17	Do you think the following description is realistic? About 40–60% of Component 2 financing will go directly to community-level institutions.																															
6	18	Output 1.1: Participatory socio-economic and climate vulnerability assessments will be conducted in five poor settlements and five forest protection communities across three target districts.																															
7	19	Output 2.1: At least 1,242 farmers, with a minimum 50 per cent women, will receive training.																															
8	20	A regional nursery in Banteay Srei District will be strengthened to support the propagation of native species and ecosystem restoration activities. At least 20 nursery operators and 50 community representatives will receive training on operation and maintenance.																															
9		Output 2.3: The ecological condition and climate resilience of the Banteay Srei reservoir will be enhanced through sediment removal, invasive species control, slope stabilisation, and rehabilitation of approximately 2.5 km eco-trails. Installation of 100 solar lighting and visitor amenities will improve safety and usability while minimising energy costs.																															
10		Output 2.4: Reservoir rehabilitation in Svay Leu District will increase water availability and flood buffering capacity through sediment clearance, vegetation management, embankment																															

#	Page	Missing figures	Completion (Y/N)
		stabilisation, and repair of water control infrastructure across around 92 hectares in Prey Phnum Mnas community.	
11		Output 2.5: At least 8 eco-villages will be established or upgraded.	
		Output 2.6: Nature-based wastewater and drainage systems will be improved across at least 1 km in vulnerable settlements in Sangkat Nokor Thom to manage grey water and reduce environmental pollution. <i>* km covering the target 13 restaurants</i>	
12	21	Do you also think 30% female participation is a realistic target in the target areas? Output 3.1: These platforms will facilitate the sharing of practical experiences, dissemination of good practices, and strengthening of cross-sectoral coordination, with a target of at least 30 per cent participation by women to ensure inclusive engagement.	
13	22	The project will directly benefit an estimated [NUMBER] individuals and [NUMBER] households in Krong Siem Reap, Banteay Srei, and Svay Leu Districts.	
14		Indirect beneficiaries include downstream communities benefiting from improved watersheds, local enterprises, tourism operators, five forest protection communities, 110 Commune Councils, and community-based organisations, all of whom will strengthen their capacity for climate-risk planning and resource management.	
15		The project will restore around 92 hectares of degraded forests and watersheds.	
16	24	63% of the budget goes to physical and ecosystem-based investments.	
17	37	Approximately 63 per cent of total financing is allocated to Component 2.	
18	41	Is it practical to target / ensure women-only consultations; ensure ≥50 per cent minimum participation for most activities?	

Table 1: Key information to be incorporated for the concept note (from the Field Mission Report).

6. Conclusion

Overall, the proposed outcomes and outputs are agreed, and the collected information shall be incorporated into the concept note as set out in Table 1 above. The Concept Note Phase consultations confirmed stakeholder alignment across provincial, municipal/district, commune/Sangkat, APSARA Authority, and community levels, and validated the gender-responsive design and eco-tourism direction of the project.

Annex A: Mission Schedule

First Field Mission (5-7 May 2025)

Day / Time	Description	Remarks
Day One (Tue 05 May)	Travelling from Phnom Penh to Siem Reap	
Day Two (Wed 06 May) 09:00 – 10:00 10:30 – 11:30 14:00 – 17:00	Meeting with Siem Reap Provincial Officers Meeting with APSARA Officers Meeting with selected communes/Sangkat officers	Relevant data to be collected
Day Three (Thu 07 May) 08:00 – 12:00	Review and complete a Concept Note for LLA calls Return to Phnom Penh	

Second Field Mission (18–19 May 2026)

Day / Time	Description	Remarks
Day One (Mon 18 May)	Multi-stakeholder consultation / validation workshop at Siem Reap Provincial Hall - presentation of proposed outcomes and outputs, analysis of climate change impacts, gender-responsive measures, and eco-tourism.	Attendees: 38 (Female: 8). Ministry of Environment, provincial administration and relevant provincial departments, city and districts, communes and Sangkats, academia, NGOs and civil society, and the private sector.
Day Two (Tue 19 May)	Community-level verification at target sites (Sangkat Nokor Thom, Tbaeng Commune, and Khnang Phnum Commune) - verification of specific measurable indicators for relevant outputs and gender assessment.	Attendees: 25 (Female: 10). Target commune/Sangkat, villages and community members.

Annex B: Activity Photos

Meeting with Provincial Officials — 06 May 2026



Meeting with APSARA Authority — 06 May 2026



Meeting with Municipal Officials and Relevant Sangkats — 06 May 2026



Stakeholder Consultation - 18 & 19 May 2026

Upon the recommendation drawn from the last mission, Siem Reap Provincial Administration, UN-Habitat, and Ministry of Environment, co-organized a consultative meeting on 18 May 2026. 38 participants (female 20%) gathered to provide inputs on proposed outcomes and outputs in corresponding to the target sites and to gather relevant information as well as the discussion on the adverse impacts from climate change on different groups of beneficiaries and the required prevention as summarized in Part 3. Gender-Differentiated Climate Impacts and Tailored Gender-Responsive Adaptation Measures.



Annex C: List of Informal Settlements

The following record lists the informal settlements in Siem Reap City referenced in Section 4.1: 1,837 households, equivalent to 8,527 people, living across 146 locations.

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២	ស្វាយដង្គំ	០៩	១៨	២៤	៩៥
៣	ស្រងែ	០១	០១	០១	០៤
៤	សំបូរ	០៨	១៤	១៤	៧៣
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Preliminary Gender Assessment

Locally Led Adaptation (LLA) Concept Note — Adaptation Fund

“Enhancing Livelihood and Climate Adaptation through Nature-based Solutions in Heritage Protected Areas in Siem Reap Province, Cambodia” – UN Habitat Cambodia

This preliminary gender assessment has been developed to provide a situational analysis of gender issues in the local context of Cambodia. Based on the empirical evidence in the form of qualitative and quantitative data and analysis for gender roles, activities, needs, and available opportunities and challenges or risks, this assessment will try to identify **the gender-differentiated impacts** of climate change as well as the needs and capacities for action of different sub-groups of men and women. It will identify what corresponding **gender-responsive** measures have been taken to address identified differences and to ensure that women and men have equal opportunities to build resilience, address their differentiated vulnerabilities and increase their capacity to adapt to climate change impacts through the project implementation. Furthermore, this assessment will ensure adherence to the Adaptation Fund Gender Policy.

This Gender Assessment is preliminary and will be revisited and expanded during the full proposal development phase to ensure the project’s results framework, budget, and environmental and social safeguards approach are designed in a way to meet the differentiated adaptation needs of men and women, and to ensure that the project does not discriminate between men and women or contribute in any other way to gender inequality. The document will adopt an iterative process and will be updated regularly during the project lifecycle.

It should be noted that a comprehensive Gender Action Plan and a set of Gender-Targeted Indicators will be developed during the full proposal stage. These tools will explicitly outline gender-responsive measures designed to promote equality and women’s leadership within project decision-making bodies, as well as to strengthen women’s resilience against climate change-related risks throughout project implementation. These tools will be strengthened through consultation and feedback from representatives from specialist government ministries for women and youth and gender equality agencies, as well as local women’s cooperatives and many community-based organizations.

METHODOLOGY

During the concept note stage, the formulation team engaged in comprehensive consultations with a diverse range of stakeholders, in addition to literature reviews of the existing reports and publications. This inclusive approach ensured that the project design was tailored to the requirements of disadvantaged and marginalized populations, specifically indigenous communities and persons with disabilities.

PREPARATORY CONSULTATION PROCESSES

Field missions and stakeholder consultations were conducted in May 2026. These missions utilized a gender-sensitive methodology to engage diverse local stakeholders, specifically targeting women, youth, and persons with disabilities. The objective was to assess gender-differentiated climate vulnerabilities and identify tailored, gender-responsive adaptation measures. This ensures the project promotes equitable access to benefits and adheres to the Fund’s principles of social inclusion and gender equality. The meeting minutes of stakeholder consultations are attached as **Appendix 2** of the concept note.

It should be noted that the project formulation team invited all relevant sub-national stakeholders, including men, women, and the potentially excluded marginalized populations such as people with disabilities, youth, and the elderly, to the stakeholder consultations. Although the team tried to have at least 30 per cent of female participants in all meetings, there were limited female participants, as well as the potentially marginalized populations. The main reason for this trend is the male-dominated context of government institutions, local authorities, and community committees. Additional consultations will be implemented during the full proposal stage to identify the detailed gender-differentiated climate impacts and corresponding gender-responsive measures. This information will be the fundamental source to prepare the project-specific Gender Action Plan, including gender-targeted indicators.

Stakeholder Consultations: 6th May 2026

Three meetings with relevant stakeholders were conducted to clarify the targeted beneficiaries including feasible female ones and to confirm the project sites and surrounding environments. The results provided full support on proposed outcomes and outputs within the needs of people in Siem Reap province, in particular on how the project is designed to give more ownership to the community levels. Though, there was advised to further gather relevant stakeholders and discuss together (**Appendix 2**).



Meeting with representatives from Provincial Administration



Meeting with representatives from APSARA Authority



Meeting with district, city, commune, and Sangkat representatives

Stakeholder Consultation: 18th May 2026

Upon the recommendation drawn from the last mission, Siem Reap Provincial Administration, UN-Habitat, and Ministry of Environment, co-organized a consultative meeting on 18 May 2026. 38 participants (female 20%) gathered to provide inputs on proposed outcomes and outputs in corresponding to the target sites and to gather relevant information as well as the discussion on the adverse impacts from climate change on different groups of beneficiaries and the required prevention as summarized in **Part 3. Gender-Differentiated Climate Impacts and Tailored Gender-Responsive Adaptation Measures.**



Stakeholder Consultations: 18th-19th May 2026

Additional site visits and community engagement were conducted to collect missing information under relevant outputs.

SUMMARY RESULTS

1) National Gender Equality Status

In the 2022 World Economic Forum Global Gender Gap Index, Cambodia is ranked 11th in the region (out of 19 East Asia and Pacific countries) and 98th globally (156 countries) with a score of 0.690.¹ According to the Human Development Report 2021-22, Cambodia ranked 116th globally with Gender Inequality Index of 0.461.^{2, 3} The Human Development Index for Cambodia in 2021 was 0.593 (0.570 for female and 0.615 for male).⁴ The average annual HDI growth was 2.42 percent for the decade 2000-2010 declined to 0.85 percent for 2010-2020.

¹ World Economic Forum (2022) Global Gender Gap Report 2022

² UNDP (2022) Human Development Report 2021-22, p 293

³ UNDP (2023) Breaking Down Gender Biases – Shifting Social Norms towards Gender Equality.

⁴ ibid

Table 30 Global Gender Gap Index – Overview

	Rank	2021	Rank	2022
Global Gender Gap Index	103	0.684	98	0.690
Economic participation and opportunity	46	0.729	61	0.710
Educational attainment	128	0.919	105	0.996
Health and survival	46	0.978	42	0.978
Political empowerment	126	0.111	121	0.107



Table 31 Gender equality by sector

	Rank	Score
Health and survival		
Healthy life expectancy, years	49	1.054
Educational attainment		
Literacy rate, %	113	0.867
Enrolment in primary education, %	84	0.995
Enrolment in secondary education, %	1	1.000
Enrolment in tertiary education, %	106	0.943
Economic participation and opportunity		
Labour force participation rate, %	41	0.861
Estimated earned income, int'l \$1,000	18	0.785
Legislators, senior officials, managers, %	86	0.449
Professional and technical workers, %	102	0.672
Political empowerment		
Women in parliament, %	93	0.263
Women in ministerial positions, %	124	0.103
Years with female/male head of state (last 50)	78	0.000

Cambodia has made notable progress in promoting gender equality over the past decade through national policies, legal reforms, and gender mainstreaming initiatives. The government has integrated gender considerations into key national frameworks such as the Pentagonal Strategy Phase I, Cambodia Sustainable Development Goals (CSDGs), Neary Rattanak Strategic Plan, and climate-related policies including the Cambodia Climate Change Strategic Plan and the Nationally Determined Contribution (NDC) with the Ministry of Women's Affairs, is the focal ministry to oversee the progress and advocacy.

2. Gender Context of Siem Reap Province

Increases in extreme weather conditions such as increased temperature, droughts, storms, and floods, which are also experienced by Siem Reap—are already altering economies, economic development, and patterns of human migration, and are likely to be among the biggest global health threats this century. Everyone will be affected by these changes, but not equally. Vulnerability to climate change will be determined by a community or the ability of the individual to adapt.⁵

The female population in Siem Reap Province is 50.51 percent, with 12.67 percent being Female-Headed Households (FHH).⁶ As in other parts of the country, in Siem Reap, women face challenges due to social reasons and roles in the household and are more likely to experience unpaid care and domestic work during climate-related disasters, including caring for sick family members, collecting water, and managing household recovery while often face greater barriers to accessing climate information, finance, land ownership, and productive assets, limiting their

⁵ Care International (2010). *Adaptation, Gender and Women's Empowerment*. Care International Climate Change Brief. www.careclimatechange.org/files/adaptation/CARE_Gender_Brief_Oct2010.pdf

⁶ *Provincial Socioeconomic Report 2023*, Siem Reap Province.

ability to adapt and recover from climate impacts⁷. Besides, even is the major tourist destination with renown Angkor, 67.8 % remains relying on Agriculture. Women farmers are highly affected by climate change because they represent a large share of the agricultural workforce while often having lower access to modern technology, irrigation systems, and climate-resilient farming tools⁸. Therefore, supporting women to adapt is crucial.

Climate change impacts in Siem Reap are multidimensional, affecting cultural heritage, local economies, eco-system, and social well-being. Heatwaves and droughts reduce rice yields while intense rainfall events damage roads, homes, and occasionally heritage structures (ADB, 2022).

When drought or heavy rain threatens agricultural production, men can adapt by using their savings and economic independence to invest in alternative income sources, and in times of food scarcity and drought, women will often give priority to their husbands and family members nutritional needs before hers.⁹ According to reports from the Cambodia Humanitarian Response Forum (CHF), in September/October 2022, flooding in Cambodia affected an estimated 85,482 households across 74 districts in the 14 provinces. As many as 33,165 homes have been damaged, along with 29 health centres, 280 schools, 1,600 km of rural road and 152,386 hectares of agricultural land.¹⁰ Evidence suggests that women were more severely affected during such floods. Women were more likely to be in the home when floods hit or unable to leave because of domestic care responsibilities. The resulting disruption to health care infrastructure and service left pregnant women to deliver in very critical conditions such as flooded delivery rooms or worse and at home where immediate medical care was not available.¹¹ According to CARE in Cambodia, poor women and girls of are tempted to migrate to Thailand in search of work – and many fall victim to human trafficking.¹² In Siem Reap Province, the two critical underlying causes of poverty affecting young women, i.e., gender inequality and limited income generation opportunities – result in low household incomes, little knowledge of and access to markets, lack of capital, and few opportunities to improve individual capacities and skills.¹³

3. Gender-Differentiated Climate Impacts and Tailored Gender-Responsive Adaptation Measures

Combining the desk reviews and group discussions during the meeting on 18 May 2026, the impacts and responsive adaptive measures in Siem Reap province are summarized below:

Key stakeholder Category	Gender-Differentiated Climate Impacts	Tailored Gender-Responsive Adaptation Measures
Male	- Income loss due to their dependency on climate-vulnerable agricultural practices. - Migration due to reduced incomes from agriculture	- Capacity-building activities for livelihood diversification and resilient agriculture techniques. - Advocacy for shared unpaid responsibilities at home.
Women	- Income loss due to their dependency on climate-vulnerable agricultural practices and informal tourism services. - Less access to information, market, public facilities, and livelihood resources due to floods and limited accessibility. - Exposure to gender-based violence (GBV) risks and increased unpaid care and domestic work during climate-related disasters. - Adverse effects on women's health, food security, and mental well-being, especially among rural and poor households.	- Capacity-building activities for livelihood diversification and impacts/preparedness. - Accessible meeting locations and times by considering women's daily routines and responsibilities. - Consider transportation and childcare services might have to be provided for women, who are often less mobile, in order to attend meetings - Strengthen women's leadership, access to clean energy, climate finance, technology, and climate information - Gender-responsive climate policies to ensure women's equal participation in climate decision-making, adaptation planning, disaster risk reduction, and green economic opportunities.
Youth/ Children	- Absence from schools due to limited accessibility and lacks adaptive measures at schools. - Risk of food insecurity and clean drinking water.	- Provide WASH facilities at the climate-vulnerable communities. - Improve the school access routes resilient to flooding.

⁷ UN-Women (2024). *Gender and Environmental Survey*, Cambodia.

⁸ UN-Women (2021). *State of Gender Equality and Climate Change*, Cambodia.

⁹ PRB (2012). *Women more vulnerable than men to climate change*. <https://www.prb.org/resources/women-more-vulnerable-than-men-to-climate-change/>

¹⁰ <https://floodlist.com/asia/cambodia-floods-september-october-2022>

¹¹ International Bank for Reconstruction and Development (2019). *STRIKING A BALANCE MANAGING EL NIÑO AND LA NIÑA IN CAMBODIA'S AGRICULTURE*. <https://documents1.worldbank.org/curated/en/433961554200320844/text/Striking-a-Balance-Managing-El-Ni%C3%B1o-and-La-Ni%C3%B1a-in-Cambodia-s-Agriculture.txt>

¹² ReliefWeb (2013). Cambodia: Floods - Sep 2013. <https://reliefweb.int/disaster/fl-2013-000131-khm>

¹³ CARE Cambodia (2022). *Young Women in Business (YWIB)*. <https://www.care-cambodia.org/ywib>

	• Health issues/ diseases due to insufficient WASH facilities (e.g. latrines without a proper septic tank). • Risk of death from flooding and health issues from extreme heat	• Retrofitting school buildings and homes to climate-resilient (e.g. extreme heat, flooding, and strong winds) • Public awareness for preparedness for disaster risk reduction measures
People with disabilities	• Difficulty accessing clinics and medicines due to limited accessibility and climate-vulnerable pathways.	• Improve pathways and road segments with proper drainage systems, including garbage trapping systems, to avoid/minimize flooding risks.
Private Sector (especially Tourism service)	• Increased price of agricultural products as the main inputs for service delivery • Cancelled trips affected by extreme climate events	• Develop resilient supply chain • Promote the discount rate for tourists during affected seasons