STAP guidelines for screening GEF projects

Part I: Project Information	Response	
GEF ID	10779	
Project Title	Advancing Climate Resilience of Water Sector in Bhutan (ACREWAS)	
Date of Screening	26 May 2021	
STAP member screener	Ed Carr	
STAP secretariat screener	Virginia Gorsevski	
STAP Overall Assessment and Rating	**Minor issues to be considered during project design** STAP welcomes the project Advancing Climate Resilience of Water Sector in Bhutan (ACREWAS). The project clearly identifies both environmental and human challenges related to climate change impacts, and proposes activities clearly aimed at addressing those challenges. STAP suggests the following minor revisions to ensure the project has the most effective, durable outcomes possible. 1) Consider more than one future climate scenario. As the climate is probabilistic, future precipitation and temperature are uncertain. Changes may be greater or less than in the single scenario selected. STAP suggests the project review existing climate projections and consider a plausible scenario where impacts are more significant and another where impacts are somewhat less than in the current scenario. This will allow the project team to select and implement interventions that are robust across a range of possible futures. 2) Develop qualitative indicators for project outcomes one and four to allow for the tracking of progress and project outcomes. 3) Articulate the climate risks to project implementation. As the PIF identifies current variability and its impacts as an immediate threat	

	to people and the environment in Bhutan, it is important to consider how such impacts might affect the project and identify steps to mitigate those impacts. 4) Articulate a more robust plan for the scaling up of results. This includes defining exactly what organizations/groups might take up useful lessons, and how. 5) Disaggregate the beneficiaries of the project by gender and other relevant social categories to ensure that a range of beneficiaries, who might have different needs, are represented in project design and M&E	
Part I: Project Information **B. Indicative Project Description Summary**	**What STAP looks for**	**Response**
Project Objective	Is the objective clearly defined, and consistently related to the problem diagnosis?	Yes, the objectives are clearly defined and supported by evidence.
Project components	A brief description of the planned activities. Do these support the project's objectives?	Yes, they do.
Outcomes	A description of the expected short-term and medium-term effects of an intervention. Do the planned outcomes encompass important adaptation benefits?	Yes, though some of the outputs are more clearly connected to adaptation (strengthened water governance, enhanced adaptive capacity of water infrastructure) than others (improved ecosystem conditions in target river basins)
	Are the global environmental benefits/adaptation benefits likely to be generated?	Yes, they are.
Outputs	A description of the products and services which are expected to result from the project. Is the sum of the outputs likely to contribute to the outcomes?	Yes, they are.
Part II: Project justification	A simple narrative explaining the project's logic, i.e. a theory of change.	
1. Project description. Briefly describe:	Is the problem statement well-defined?	The problem statement is very well-defined. The PIF uses appropriate climate data, and generally links changes in climate and changes in the

1) the global environmental and/or adaptation problems, root causes and barriers that need to be addressed (systems description)		variability of climate to impacts in a manner that clearly connects these changes and variability to human and environmental challenges and allows for the selection of specific interventions.
	Are the barriers and threats well described, and substantiated by data and references?	The threats are well-defined and described, and supported by appropriate data. The barriers are also well-described and supported.
	For multiple focal area projects: does the problem statement and analysis identify the drivers of environmental degradation which need to be addressed through multiple focal areas; and is the objective well-defined, and can it only be supported by integrating two, or more focal areas objectives or programs?	n/a
2) the baseline scenario or any associated baseline projects	Is the baseline identified clearly?	The baseline scenario section of the PIF is very clear. One minor suggestion is, in the table outlining the baseline, alternative, and incremental cost reasoning, the project team could better link the baseline to impacts. At times the baseline lays out continuing practices but does not link them to trends in the challenges the project seeks to address. The narrative description of the project and problem does this, but it would be useful to have this connection stated in the table. While this PIF uses climate data in an appropriate manner when defining problems, STAP strongly recommends that projects consider more than one plausible future when setting out a problem statement and baseline scenario. The future climate is probabilistic and therefore even the best models have significant variance in their projections as they move into the future. In the PPG stage the project would be well-served to consider adding two more scenarios that capture some of this plausible variance in temperature and precipitation and use all three scenarios to assess 1) adaptation needs and 2) the potential effectiveness of different interventions across these plausible

		futures. This will ensure the project selects interventions that target the most likely future needs while delivering adaptation benefits across a range of possible futures.
	Does it provide a feasible basis for quantifying the project's benefits?	The PIF provides a basis for quantifying benefits for two of the four outcomes – outcomes two and three. The other outcomes are more challenging to quantify, as outcome one is *Strengthened water governance, institutions and financing mechanism in support of climate-resilient water management* and outcome four is *Strengthened awareness and knowledge sharing mechanism established.* Both of these outcomes should be measured, but quantified measures may not be the most effective means of capturing performance around these outcomes. STAP recommends that in the PPG stage the project develop clear indicators, whether quantitative or qualitative, of performance on these two outcomes.
	Is the baseline sufficiently robust to support the incremental (additional cost) reasoning for the project?	Yes, it is.
	For multiple focal area projects:	
	are the multiple baseline analyses presented (supported by data and references), and the multiple benefits specified, including the proposed indicators;	n/a
	are the lessons learned from similar or related past GEF and non-GEF interventions described; and	n/a
	how did these lessons inform the design of this project?	n/a
3) the proposed alternative scenario with a brief description of expected outcomes and components of the project	What is the theory of change?	STAP appreciates the clear summary of the TOC in the PIF: In order to address the serious threats to drying up of sources of water/ springs/ upper streams in catchment areas and consequently, reduced/erratic downstream water availability, the project will improve ecosystem services of critical water catchments and enhance resilience of vulnerable mountain communities to cope with the

		impacts of climate change. STAP also appreciates the detailed diagram of the full TOC.
	What is the sequence of events (required or expected) that will lead to the desired outcomes?	The project will work on specific interventions (see below) in four broad areas: 1. Water governance and institutions 2. Nature-based solutions for sustainable and climate-resilient watersheds, and livelihood enhancement 3. Efficient, adequate and sustainable supply, distribution and utilization of water 4. Knowledge management Each of these interventions will contribute to the achievement of four outcomes: 1. Strengthened water governance, institutions and financing mechanism in support of climate-resilient water management 2. Vulnerable natural water catchments in the target river basin (Punatsangchu River Basin) restored, sustainably managed, protected and their ecosystem conditions improved 3. Enhanced adaptive capacity of water infrastructure to climate-induced water shortages and quality deterioration through climate proofing, private sector engagement and technology deployment 4. Strengthened awareness and knowledge sharing mechanism established These broad outcomes will, in turn, contribute to the overall goal of improved availability and accessibility of adequate irrigation and drinking water for food security and strengthened resilience of watersheds and communities.

	What is the set of linked activities, outputs, and outcomes to address the project's objectives?	**Outcome: Strengthened water governance, institutions and financing mechanism in support of climate-resilient water management** *Activities* • establishment of an agency for water utilities and one that will pursue integrated water sector development, management and provision of water related utility services • establishment of River Basin Management Committees (RBMCs), Dzongkhag Water Management Committees (DWMCs) and Water User Associations (WUAs). • clarifying policies, regulations & planning processes as well as financing of operations of RBMCs and DWMCs as it relates to water sector planning, development and management, promoting community participation, monitoring and reporting and resolving cross-sectoral issues to fully embed climate risk considerations • The project will also test and demonstrate financing instruments or models engaging private sector through PPP and PES to embed sustainability dimensions in watershed and water infrastructure management. To promote water conservation as an adaptation mechanism and reduce overconsumption and water, a water pricing policy will be supported *Specific outcomes* • Establishment of functioning agencies **Outcome: Vulnerable natural water catchments in the target river basin (Punatsangchu River**

		Basin) restored, sustainably managed, protected and their ecosystem conditions improved *Activities* • participatory assessment, identification & declaration of critical water sheds/catchment areas/spring recharge areas. • soil & water conservation interventions, bio-corridors/setbacks and wetlands/spring augmentation activities for water catchment /spring recharge areas including soil/moisture retaining agro-practices and climate-resilient crops in settlements near catchments. *Specific outcomes* • Improved water security as and biodiversity/ecosystems safeguards with additional co-benefits in carbon sequestration and storage, improved soil fertility, biodiversity conservation, and improved community livelihoods. Catchment watersheds restored with vegetation to enhance infiltration, reduce run-off and peak flows, and stabilize slopes, soil fertility improved over 37,530 hectares of forest land/watersheds • Improved ecosystem conditions of 42 watershed areas as well as 147 spring sources to improve water availability and quality at source. • Local sites for nature-based solutions identified and at least 12 start-up enterprises on based solutions promoted to incentivize and enhance watershed conservation such as fodder development, catch and release fishing, water sports, tourism, hot stone bath, etc. These enterprises can operate as per the framework

		developed through the GEF ecotourism project and provide concessions for these nature- based enterprises (private sector) to participate in watershed management activities. **Outcome: Enhanced adaptive capacity of water infrastructure to climate-induced water shortages and quality deterioration through climate proofing, private sector engagement and technology deployment** *Activities* • establishment and demonstration of adequate climate-smart and efficient water infrastructure. • support on-boarding of new/improved technologies to be deployed so that vulnerability of the infrastructure to failures due to climate-induced hazards or through man-made disturbances on the system are detected and solutions provided in a timely manner. • The project support under this component will include supporting startups to install and manage efficient technologies in the operation and management of the infrastructure. *Specific outcomes* • Community resilience improved covering 2,567 households with access to adequate irrigation water and be able to bring about additional area of 559.9 Hectares of agriculture land under sustainable agriculture production. • Source of water supply would have extended beyond surface water to include ground water and rainwater enhancing resilience of water sources and human hygiene and sanitation improved covering 7,435 households with

		access to 24x7 drinking water of quality that meet Bhutan Drinking Water Quality Standard, 2016 and WHO guidelines for drinking water quality. **Outcome: Strengthened awareness and knowledge sharing mechanism established** *Specific Outcomes* • Development of a communications strategy • Publication of the State of the Basin Report
	Are the mechanisms of change plausible, and is there a well-informed identification of the underlying assumptions?	The mechanisms of change are plausible. The underlying assumptions are at times clearly stated. At other times, these have to be inferred from the text.
	Is there a recognition of what adaptations may be required during project implementation to respond to changing conditions in pursuit of the targeted outcomes?	In the risks section of the PIF, the project identifies potential risks and the adaptations that would be needed to address them. However, this list of risks does not consider extreme climate events, which are listed as a challenge in the project description. The project team should consider possible impacts of extreme weather and climate on project activities and how these risks will be managed.
5) incremental/additional cost reasoning and expected contributions from the baseline, the GEF trust fund, LDCF, SCCF, and co-financing	GEF trust fund: will the proposed incremental activities lead to the delivery of global environmental benefits?	n/a. However, while this project is requesting funding through the LDCF and is therefore focused on climate change adaptation, proposed activities aimed at restoring degraded landscapes would likely yield GEBs measured under the GEF Trust Fund (i.e. reduced land degradation, carbon mitigation and biodiversity benefits).
	LDCF/SCCF: will the proposed incremental activities lead to adaptation which reduces vulnerability, builds adaptive capacity, and increases resilience to climate change?	Yes.
6) global environmental benefits (GEF trust fund) and/or adaptation benefits (LDCF/SCCF)	Are the benefits truly global environmental benefits/adaptation benefits, and are they measurable?	Yes, though the benefits under outcomes 1 and 4 require the development of at least qualitative measures.
	Is the scale of projected benefits both plausible and compelling in relation to the proposed investment?	Yes

	Are the global environmental benefits/adaptation benefits explicitly defined?	Yes
	Are indicators, or methodologies, provided to demonstrate how the global environmental benefits/adaptation benefits will be measured and monitored during project implementation?	Yes, though the benefits under outcomes 1 and 4 require the development of at least qualitative measures.
	What activities will be implemented to increase the project's resilience to climate change?	These are not clearly stated in the PIF, and should be identified and articulated at the PPG stage.
7) innovative, sustainability and potential for scaling-up	Is the project innovative, for example, in its design, method of financing, technology, business model, policy, monitoring and evaluation, or learning?	The project employs well-understood interventions to address clear climate and water-related challenges in Bhutan. The project is focused on fostering policy innovations in Bhutan, which appears to be an achievable goal. There appears to be one innovative technology (the DRIVE prototype) that could bring innovation to adaptation. In addition, there is indication of the use of PES scheme as innovative; however, while there is some mention of working with the power company no additional information is provided on how the scheme will work and what, specifically, is innovative about it. There is mixed evidence for the effectiveness of PES, depending on a wide variety of design factors as well as the socio-ecological context within which it is embedded (see, for example Börner *et al.*, 2017 "The Effectiveness of Payments for Environmental Services." World Development 96:359 – 374). Related, STAP notes that the financing mechanism is listed as having no risk – this seems unlikely given that the history and outcomes of these mechanisms are mixed.
	Is there a clearly-articulated vision of how the innovation will be scaled-up, for example, over time, across geographies, among institutional actors?	The scale-up is vague, and references working through the water flagship program and eventually through the national water agency this project will establish.
	Will incremental adaptation be required, or more fundamental transformational change to achieve long term sustainability?	The project proposes incremental adaptations, which appear adequate to address the challenges identified in the PIF.

1b. Project Map and Coordinates. Please provide geo-referenced information and map where the project interventions will take place.		A map is provided in a separate Annex A, which shows the specific targeted project sites, as well as those covered by a separate FAO/GCF project.
2. Stakeholders. Select the stakeholders that have participated in consultations during the project identification phase: Indigenous people and local communities; Civil society organizations; Private sector entities. If none of the above, please explain why. In addition, provide indicative information on how stakeholders, including civil society and indigenous peoples, will be engaged in the project preparation, and their respective roles and means of engagement.	Have all the key relevant stakeholders been identified to cover the complexity of the problem, and project implementation barriers?	The project has identified a very wide range of stakeholders and roles. STAP suggests the project team consider disaggregating beneficiaries by gender and perhaps income beyond simple numbers to capture the diverse interests and challenges within this broad population – this will help to ensure intervention selection and design benefits the widest number of people possible.
	What are the stakeholders' roles, and how will their combined roles contribute to robust project design, to achieving global environmental outcomes, and to lessons learned and knowledge?	All the multilateral organizations will participate on the project steering committee. National government entities will implement the project, serve on the steering committee, and in the case of the NCHM provide hydrometeorological data and information. Local governments will be part of river management committees and water management committees. Dzongkhag Administrations will manage field activities for drinking water and irrigation. Beneficiaries will be part of management committees and participate in the M&E of water resource management. Private sector actors will collaborate with other project actors in implementation.

3. Gender Equality and Women's Empowerment. Please briefly include below any gender dimensions relevant to the project, and any plans to address gender in project design (e.g. gender analysis). Does the project expect to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment? Yes/no/ tbd. If possible, indicate in which results area(s) the project is expected to contribute to gender equality: access to and control over resources; participation and decision-making; and/or economic benefits or services. Will the project's results framework or logical framework include gender-sensitive indicators? yes/no /tbd	Have gender differentiated risks and opportunities been identified, and were preliminary response measures described that would address these differences?	The project will carry out a gender analysis in the PPG phase. STAP notes that the PIF briefly mentioned gendered roles in agriculture and suggested that women are more vulnerable than men to water shortages in agriculture. The project team should examine this and other possible gendered vulnerabilities carefully to ensure that they are clearly characterized and that stakeholder engagement includes women around interventions addressing any identified vulnerabilities.
	Do gender considerations hinder full participation of an important stakeholder group (or groups)? If so, how will these obstacles be addressed?	This is not clear in the PIF. STAP strongly suggests the project team assess this in the PPG phase and develop clear means of addressing any limits to participation.
5. Risks. Indicate risks, including climate change, potential social and environmental risks that might prevent the project objectives from being	Are the identified risks valid and comprehensive? Are the risks specifically for things outside the project's control? Are there social and environmental risks which could affect the project? For climate risk, and climate resilience measures:	STAP appreciates that the risks have been systematically organized by the project outputs and as such they are comprehensive though some may need more careful consideration before they are deemed to have no risk (i.e. financing mechanism and new technologies).

achieved, and, if possible, propose measures that address these risks to be further developed during the project design	• How will the project's objectives or outputs be affected by climate risks over the period 2020 to 2050, and have the impact of these risks been addressed adequately? • Has the sensitivity to climate change, and its impacts, been assessed? • Have resilience practices and measures to address projected climate risks and impacts been considered? How will these be dealt with? • What technical and institutional capacity, and information, will be needed to address climate risks and resilience enhancement measures?	
6. Coordination. Outline the coordination with other relevant GEF-financed and other related initiatives	Are the project proponents tapping into relevant knowledge and learning generated by other projects, including GEF projects?	Yes, the project makes clear that it will coordinate with FAO and UNDP to undertake joint consultation with relevant stakeholders, which is helpful to avoid duplication and (hopefully) maximize results. However, there appears to be a very small number of previous projects. STAP cannot tell if this is an adequate representation of the projects in the country from which the current project should be learning.
	Is there adequate recognition of previous projects and the learning derived from them?	The PIF does not clearly reference lessons from prior projects, instead referencing some activities from prior projects. STAP suggests the project design team expand the number of projects from which they might learn and explicitly consider what lessons are relevant for the current proposed project.
	Have specific lessons learned from previous projects been cited?	No
	How have these lessons informed the project's formulation?	It is not clear.
	Is there an adequate mechanism to feed the lessons learned from earlier projects into this project, and to share lessons learned from it into future projects?	It is not clear.
8. Knowledge management. Outline the	What overall approach will be taken, and what knowledge management indicators and metrics will be used?	The KM plan will be prepared in the PPG phase. It will have a goal of making project lessons

"Knowledge Management Approach" for the project, and how it will contribute to the project's overall impact, including plans to learn from relevant projects, initiatives and evaluations.		available both within and beyond Bhutan through a project communication strategy.
	What plans are proposed for sharing, disseminating and scaling-up results, lessons and experience?	These will be developed in the PPG phase

Notes

STAP advisory response	Brief explanation of advisory response and action proposed
1. Concur	STAP acknowledges that on scientific or technical grounds the concept has merit. The proponent is invited to approach STAP for advice at any time during the development of the project brief prior to submission for CEO endorsement.
	* In cases where the STAP acknowledges the project has merit on scientific and technical grounds, the STAP will recognize this in the screen by stating that ***"STAP is satisfied with the scientific and technical quality of the proposal and encourages the proponent to develop it with same rigor. At any time during the development of the project, the proponent is invited to approach STAP to consult on the design."***
2. Minor issues to be considered during project design	STAP has identified specific scientific /technical suggestions or opportunities that should be discussed with the project proponent as early as possible during development of the project brief. The proponent may wish to:
	(i) Open a dialogue with STAP regarding the technical and/or scientific issues raised;
	(ii) Set a review point at an early stage during project development, and possibly agreeing to terms of reference for an independent expert to be appointed to conduct this review.
	The proponent should provide a report of the action agreed and taken, at the time of submission of the full project brief for CEO endorsement.

3. Major issues to be considered during project design	STAP proposes significant improvements or has concerns on the grounds of specified major scientific/technical methodological issues, barriers, or omissions in the project concept. If STAP provides this advisory response, a full explanation would also be provided. The proponent is strongly encouraged to:
	(i) Open a dialogue with STAP regarding the technical and/or scientific issues raised; (ii) Set a review point at an early stage during project development including an independent expert as required. The proponent should provide a report of the action agreed and taken, at the time of submission of the full project brief for CEO endorsement.