STAP SCREENING TEMPLATE

GEF ID	**11109**
Project title	**Enhancing the Climate Resilience of Urban Landscapes and Communities in Thimphu-Paro Region of Bhutan**
Date of screen	**6 June 2023**
STAP Panel Member	**Edward Carr**
STAP Secretariat	**Virginia Gorsevski**

1. Summary of STAP's views of the project

STAP acknowledges the project "Enhancing the Climate Resilience of Urban Landscapes and Communities in Thimphu-Paro Region of Bhutan" which seeks to strengthen the management of climate risks, and reduce the vulnerability of urban landscapes and communities to the impacts of climate change in Thimphu-Paro. Overall, the project seems likely to deliver adaptation benefits, including reduced exposure to hazards, reduced sensitivity to hazards, and increased adaptive capacity in the project area across civil society and government.

STAP appreciates the PIF's clear identification of non-climate drivers of vulnerability, as well as the effort to bring in more than one climate future as part of the baseline. We recommend that, at the PPG stage, the project designers create a more integrated picture of the system that generates vulnerability (i.e. connecting urbanization, economic activity, and social inequality) and use that to create more than one scenario of that system's development into the future – when coupled with the different climate scenarios laid out in the PIF, this activity will clarify the range of uncertainty that the project area faces going forward and help project designers select interventions and target outcomes that will produce robust adaptation benefits into the future.

Note to STAP screeners: a summary of STAP's view of the project (not of the project itself), covering both strengths and weaknesses.

STAP's assessment*

□ Concur - STAP acknowledges that the concept has scientific and technical merit

X Minor - STAP has identified some scientific and technical points to be addressed in project design

□ Major - STAP has identified significant concerns to be addressed in project design

Please contact the STAP Secretariat if you would like to discuss.

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

See annex on STAP's screening guidelines.

The project aims to address current and expected future impacts of climate change on both water availability and hydrometeorological hazards in two rapidly urbanizing areas in Bhutan. Overall, the project will deliver broad adaptation benefits in terms of increased adaptive capacity (particularly of government stakeholders at several levels), reduced sensitivity to drought, and reduced sensitivity and exposure to flooding. The PIF largely focuses on increased adaptive capacity as a benefit, which might under-promise given the other benefits the project is likely to deliver.

While the project has a clear Theory of Change (ToC), the baseline does not indicate how uncertain futures might unfold in the project area. This makes it challenging to evaluate the robustness of the proposed activities across a range of plausible futures. The PIF's heavy focus on precipitation is justified by the supplied data on the

current and likely future climate, in terms of trends. While this data demonstrates minimal divergence from current temperature conditions until beyond 2040, it shows substantial increases in precipitation even before 2040 under the more moderate RCP4.5 scenario. What the PIF does ***not do*** is twofold. First, it does not clearly articulate what the difference between a 15.2% increase in precipitation (RCP4.5) and a 21.8% increase (RCP 8.5) looks like in terms of the challenges of flooding and drought discussed in the PIF. This would have been useful in assessing whether the proposed interventions will be adequate under both scenarios, and therefore likely to yield robust adaptation benefits.

Second, it builds a partial understanding of the system in which hydrometeorological challenges are taking shape. The PIF provides useful data on urbanization trends, but only offers one set of projections for growth in each area. It also speaks to economic activity, but only in the present. While the data provided in the PIF is useful, right now it is not integrated into simple narratives that includes demography, economy, and climate information into a scenario of the future state of the system and the underlying drivers of vulnerability. This makes it difficult to assess the appropriateness of the proposed interventions given uncertainty about the future or the likelihood that the adaptation benefits the project delivers will be robust across a range of possible futures.

Both of the project objectives and the ToC are clear and logical, with the caveat that they are presented in absence of framings of the system context that capture future uncertainty. One question that arises, in the context of project design (see STAP Advisory Document A decision tree for adaptation rationale), is whether the project designers have determined what, if any, ongoing adaptations to the described hydrometeorological stresses are taking place – whether formal or informal. Given the level of stress described in the PIF, it seems likely that some autonomous adaptation is taking place, and perhaps even formally-planned adaptation is starting at lower levels of government. If no such activity is taking place, either in the government (where the PIF strongly suggests it is not) or among the general population (which is largely unaddressed in the PIF), the PIF should state this clearly as it would emphasize the value of this project. If there *is* some adaptation activity taking place, in the PPG stage the project designers should seek to understand it and use the decision tree to determine if the project should complement or replace those actions with project interventions.

STAP welcomes the focus on using geospatial data and tools for more integrated planning. However, many concepts, databases, technologies, etc. are mentioned throughout the PIF without offering a very clear explanation how, specifically, different data sets and systems will be used to address specific issues outlined in the project. See Earth observation and the GEF (primer and technical guide) for a detailed explanation of Earth observation principles, data sources and platforms, as well as case studies. ICIMOD in neighboring Nepal includes Bhutan as a regional partner and will likely have data specific to Bhutan as well as a special focus on 'adaptation and resilience building.'

STAP is pleased to see that this project will develop a framework that will be used to facilitate policy coherence across multiple sectors that have stakes in urban land use and development; however, this is not reflected in the stakeholders table which only includes the Ministry of Infrastructure and Transport (MoIT) at the national level. Bringing in finance, natural resources, etc. may help to uncover and address possible perverse incentives and maximize GEF and other investments (see Enhancing policy coherence through GEF operations and Framing policy coherence for the GEF). This is particularly important given the many ongoing and related projects underway in Bhutan on green housing, disaster resilience, water management, etc. For example, Output 1.5 on innovative financing solutions might consider reviewing fiscal and non-fiscal incentives beyond just the MoIT.

The focus on vocational training for green, gender-friendly and resilient construction technology such as permeable paving, rooftop rainwater harvesting, wastewater reuse/recycling is welcome and may improve likelihood of durability as well as the potential co-benefits.

Under component 3 on knowledge management, given the plethora of complementary and potentially overlapping donor-funded projects (see Project baseline and key barriers), it will be very helpful to project managers and users if data and knowledge could somehow be 'connected' – perhaps even through one portal

or one institution (preferably local) – to ensure that information is not lost once this project (and the others) are terminated.

The private sector is mentioned throughout the PIF as an important stakeholder, including involvement in planning, design, implementation, operation and maintenance. However, their lack of involvement to date (i.e. as noted in this PIF), coupled with the expectation that financing is expected to be a "mix of government financing through existing programs and donor-funded projects/programs" (output 2.1) does not inspire confidence. It will be important during PPG phase to integrate private sector companies into the planning process to better understand what incentives exist to secure meaningful participation and investment.

Note: provide a general appraisal, asking whether relevant screening guideline questions have been addressed adequately – not all the questions will be relevant to all proposals; no need to comment on every question, only those needing more attention, noting any done very well, but ensure that all are considered. Comments should be helpful, evaluative, and qualitative, rather than yes/no.

3. Specific points to be addressed, and suggestions

1) STAP recommends that at the PPG stage the project build on the data gathered and presented in the PIF to develop a clearer, more integrated articulation of the system. Much of what is needed is in the PIF, but it is not integrated. Instead, aspects of the system are currently captured under headings Situation Analysis (capturing the economic importance of the project area and the institutional capacity challenges facing Bhutan and the municipal governments) and Underlying Causes of Vulnerability (which addresses urbanization trends and some issues of inequality). This step feeds into the second recommendation.

2) During the PPG stage, project designers should use the integrated presentation of the system, and the climate data already presented in the PIF, to develop two or more simple narratives of the future that express uncertainties the project will have to navigate. For example, one narrative could take the RCP4.5 climate projections and slower rates of urbanization to develop one future, while another could take RCP8.5 and very rapid urbanization to develop another future. These would represent two simple, plausible futures that could be used to evaluate the likely efficacy of planned interventions and their outcomes. These narratives should also ground projected changes in the climate in terms of their outcomes for those living in the project area – for example, as noted above, what is the impact on the experience of flooding of a 15% increase in precipitation, and is that different than the experience of a 22% increase?

3) It is likely that executing recommendations 1 and 2 will result in the need to make some revisions to the theory of change, though these are likely to be minor

4) In terms of stakeholder engagement, the project should confirm that there are no autonomous or local adaptations to either drought or flooding (this is implicit in the current PIF). If there are any such adaptations, the project should consider if its interventions will augment, improve upon, or compromise those adaptations. This will help to guard against maladaptation. See Section 3 of STAP's Advisory Document "A Decision Tree for Adaptation Rationale."

5) While the PIF references transformation/transformative change several times, there is no clear explanation of how the proposed project will be transformative or how transformation will be achieved. The PIF references "fostering conditions for enabling transformational adaptation through the emphasis on the three key levers: (1) policy coherence and mainstreaming of gender-responsive climate adaptation, (2) strengthened governance for adaptation, and (3) knowledge exchange and collaboration." While no doubt these conditions might enable transformation, this does not necessarily mean that transformation will occur. In the PPG stage, project designers should consult the STAP Advisory Document "Achieving Transformation Through GEF Investments," to provide a more robust theory of change that results in transformation. The advisory document has useful suggestions for thinking through and designing project interventions that will not just enable transformation, but ideally catalyze it.

6)	In developing the policy coherence framework, STAP recommends significantly broadening the stakeholders currently identified in the PIF to ensure that project designers uncover and address possible perverse incentives and maximize GEF and other investments at the PPG stage. STAP's documents Enhancing policy coherence through GEF operations and Framing policy coherence for the GEF are useful resources for this effort.

Note: number key points clearly and provide useful information or suggestions, including key literature where relevant. Completed screens should be no more than two or three pages in length.

*categories under review, subject to future revision

ANNEX: STAP'S SCREENING GUIDELINES

1. How well does the proposal explain the problem and issues to be addressed in the context of the **system** within which the problem sits and its drivers (e.g. population growth, economic development, climate change, sociocultural and political factors, and technological changes), including how the various components of the system interact?

2. Does the project indicate how **uncertain futures** could unfold (e.g. using simple **narratives)**, based on an understanding of the trends and interactions between the key elements of the system and its drivers?

3. Does the project describe the **baseline** problem and how it may evolve in the future in the absence of the project; and then identify the outcomes that the project seeks to achieve, how these outcomes will change the baseline, and what the key **barriers** and **enablers** are to achieving those outcomes?

4. Are the project's **objectives** well formulated and justified in relation to this system context? Is there a convincing explanation as to **why this particular project** has been selected in preference to other options, in the light of how the future may unfold?

5. How well does the **theory of change** provide an "explicit account of how and why the proposed interventions would achieve their intended outcomes and goal, based on outlining a set of key causal pathways arising from the activities and outputs of the interventions and the assumptions underlying these causal connections".

    - Does the project logic show how the project would ensure that expected outcomes are **enduring** and resilient to possible future changes identified in question 2 above, and to the effects of any conflicting policies (see question 9 below).
    - Is the theory of change grounded on a solid scientific foundation, and is it aligned with current scientific knowledge?
    - Does it explicitly consider how any necessary **institutional and behavioral** changes are to be achieved?
    - Does the theory of change diagram convincingly show the overall project logic, including causal pathways and outcomes?

6. Are the project **components** (interventions and activities) identified in the theory of change each described in sufficient detail to discern the main thrust and basis (including scientific) of the proposed solutions, how they address the problem, their justification as a robust solution, and the critical assumptions and risks to achieving them?

7. How likely is the project to generate global environmental benefits which would not have accrued without the GEF project (**additionality**)?

8. Does the project convincingly identify the relevant **stakeholders**, and their anticipated roles and responsibilities? is there an adequate explanation of how stakeholders will contribute to the

development and implementation of the project, and how they will benefit from the project to ensure enduring global environmental benefits, e.g. through co-benefits?

9. Does the description adequately explain:

   - how the project will build on prior investments and complement current investments, both GEF and non-GEF,
   - how the project incorporates **lessons learned** from previous projects in the country and region, and more widely from projects addressing similar issues elsewhere; and
   - how country policies that are contradictory to the intended outcomes of the project (identified in section C) will be addressed (**policy coherence**)?

10. How adequate is the project's approach to generating, managing and exchanging **knowledge**, and how will lessons learned be captured for adaptive management and for the benefit of future projects?

11. **Innovation and transformation:**
    - If the project is intended to be **innovative:** to what degree is it innovative, how will this ambition be achieved, how will barriers and enablers be addressed, and how might scaling be achieved?
    - If the project is intended to be **transformative:** how well do the project's objectives contribute to transformative change, and are they sufficient to contribute to enduring, transformational change at a sufficient scale to deliver a step improvement in one or more GEBs? Is the proposed logic to achieve the goal credible, addressing necessary changes in institutions, social or cultural norms? Are barriers and enablers to scaling be addressed? And how will enduring scaling be achieved?

12. Have **risks** to the project design and implementation been identified appropriately in the risk table in section B, and have suitable mitigation measures been incorporated? (NB: risks to the durability of project outcomes from future changes in drivers should have been reflected in the theory of change and in project design, not in this table.)