STAP SCREEN

GEF ID	**11401**
Project title	Climate Resilient Transformation of Rice-based Farming and Food Systems in Central Nepal (CRAFT Nepal)
Date of screen	January 6, 2024
STAP Panel Member	Ed Carr
STAP Secretariat	Virginia Gorsevski

1. Summary of STAP's views of the project

STAP acknowledges the Climate Resilient Transformation of Rice-based Farming and Food Systems in Central Nepal (CRAFT Nepal) project, which supports climate-resilient, rice-based production landscapes in central Nepal that improve agro-ecosystem function, food security and nutrition through inclusive, climate resilient value chains and the adoption of innovative Nature-based Solutions (NbS).

The rationale presented for this project is sensible, and the link between projected climate impacts to specific crops clearly demonstrates the link between climate and agricultural outcomes (however relying only on one (extreme) climate scenario). Additional climate scenarios (beyond RCP 8.5) are used elsewhere in the project, suggesting a need for greater uniformity in analysis, along with information on other, relevant, non-climate trends, to get a better understanding of future possible trajectories and consequently have greater confidence that the interventions selected for this project will be most effective.

STAP is pleased to see that this project has been informed by lessons learned from previous projects – this effort should be expanded upon to sharpen intervention details and proposed scaling activities. Additional suggestions for improvement are provided.

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.

Overall, STAP finds that the rationale for this proposed project is sound. Activities are intended to improve adaptive capacity (and, through irrigation, introduce some reduction in sensitivity to climate impacts) in four project sites in Nepal. The focus is on rice production – a crop which is mainly grown in the southern part of the country (the Terrai), and which also has the highest number of extreme precipitation events ($\geqslant$100mm) where three of the project sites are located. The rationale for the 4th project site (Nuwakot) – located in the center of the country – is less clear.

However, climate scenarios are unevenly presented, with RCPs 2.6/4.5 in Figure 1 and RCPs 4.5 and 8.5 throughout the rest of the PIF. These show changes in precipitation and temperature for the 4 project areas with some more compelling than others (e.g., more dramatic reduction in precipitation for the 3 areas in the

Terrai). The PIF does an excellent job of linking projected climate impacts to specific plant impacts to demonstrate the connection between climate and agricultural outcomes. However, this section of the PIF is entirely based on RCP 8.5, which is an unlikely scenario. This section would have benefited from a consideration of impacts under RCP 4.5 as well, to capture the uncertainty of future impacts, particularly when RCP 8.5 only pushed conditions slightly past plant thresholds.

While the section on the agricultural impacts of a changing climate is well-constructed, the focus on climate to the exclusion of other future trends, apart from reference to "male outmigration which is increasing the vulnerability of women and girls to the negative impacts of climate change and leading to the feminization of agriculture," minimizes the uncertainty of future system states. STAP guidance suggests that project proponants develop two or more simple narratives that reflect plausible futures integrating important system drivers that, while including climate, also include economic, demographic, and political trends that might shape future conditions. For example, the PIF notes that, with outmigration of men, agriculture is being 'feminized' - what will this mean for agricultural practice, and what role will women and men play in the newly created high commercial system? The implications of gendered practices might be more important than climate impacts. These integrated narratives allow designers to consider uncertain futures and select and design interventions that are robust across as wide a range of plausible futures as possible.

The Theory of Change (ToC) would also benefit from a clearer articulation of risks. Oddly, two ToCs are presented. In the second ToC, there is a place for risks; however, they are just the general categories from the PIF and not specific to this project. This does not allow for their consideration in the ToC. Mitigation measures for risks to project preparation and implementation (risks table) are described for each category but without explanation for the rating which feels disconnected and lacks credibility. This is particularly problematic in relation to the second ToC where just the categories are listed, as described above.

Project proponents explain well how the proposed project will build on past efforts to learn from successes and failures. For example, a clear lesson learned from the farmer field school (FFS) program is to focus on one sector more intensively to avoid spreading resources too thinly and also to build in a pathway for scaling; however, this focus on scaling is currently lacking in the ToC, despite the fact that it is described in para. 62.

Private sector engagement is promising with several activities mentioned; however, the lack of detail such as which companies or entities have been targeted and their specific role and incentive to engage makes this objective feel somewhat aspirational. The project is vague on which measures it will take to address barriers and create enabling conditions for private sector action.

The project approach to innovation is not clear, as those listed have to do with early warning information, climate resilient technologies for food production, etc. This list of potential innovations does not explain what they add up to or why they are innovative. It would be helpful to refer to STAP's paper on innovation and use the proposed categories as a way to help organize innovation (financial, business model, technical/technological, institutional and behavioral, policy) and determine whether or not they actually are evident in this project. The project should also define what a 'market based approach' means in practice – if it is meant to be in relation to NbS (this is not clear) then it will be challenging since most of the financing for NbS comes from public sources.

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

In light of these observations, STAP recommends the following:

- Include plausible future narratives that go beyond climate to ensure that proposed interventions are the most appropriate and likely to result in optimal outcomes. Include impacts under RCP4.5 as described above.

- The project notes that "Traditional and indigenous technologies and practices are becoming inadequate in the face of increasing climate variability and extreme events." Use the STAP Decision Tree to understand how proposed interventions under this project relate to existing practices to avoid maladaptation.

- Select one of the two ToCs featured in this PIF, and add a causal pathway for scaling (particularly since this element was highlighted as lacking in the FFS project). Carefully consider project specific risks (not general) and incorporate them, along with assumptions in a ToC narrative to better explain project rationale.

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.)