Scientific and Technical Advisory Panel

The Scientific and Technical Advisory Panel, administered by UNEP, advises the Global Environment Facility
(Version 5)

STAP Scientific and Technical screening of the Project Identification Form (PIF)

Date of screening: October 18, 2012 Screener: Guadalupe Duron

Panel member validation by: Anand Patwardhan; Jakob Granit
Consultant(s):

I. PIF Information *(Copied from the PIF)*
FULL SIZE PROJECT SPECIAL CLIMATE CHANGE FUND
GEF PROJECT ID: 5115
PROJECT DURATION : 3
COUNTRIES : Kyrgyz Republic
PROJECT TITLE: Promoting Climate Resiliency of Water Supplies in Kyrgyzstan
GEF AGENCIES: EBRD
OTHER EXECUTING PARTNERS:
GEF FOCAL AREA: Climate Change

II. STAP Advisory Response *(see table below for explanation)*

Based on this PIF screening, STAP's advisory response to the GEF Secretariat and GEF Agency(ies): **Minor revision required**

III. Further guidance from STAP

STAP welcomes the proposal on "Promoting Climate Resiliency of Water Supplies in Kyrgyzstan" by the European Bank for Reconstruction and Development (EBRD). The proposal addresses an important climate-sensitive sector in a region that is already experiencing multiple climate and non-climate stresses. Nonetheless, STAP believes that the project could be strengthened by more fully describing the additional burden likely to be imposed by future climate change, and, thus, the changes in the baseline required to address that burden. As such, STAP rates this proposal "Minor revision required" given it wishes the proposal to be strengthened further by addressing the points below.

1. Under the project framework, STAP notes that an output for component 1 are risk and vulnerability studies. Although this is a necessary first step, STAP believes that it may not adequately ensure that climate change assessments will be incorporated in the design and operation of water infrastructure. Therefore, STAP recommends considering institutional and regulatory changes that will allow for continued consideration of climate change risks as a part of this component.

2. STAP would value a better distinction being drawn between rehabilitation and making new infrastructure climate resilient (Refer to component #2 in the project framework).

3. STAP supports a well-defined results-based management framework similar to the LDCF/SCCF Secretariat. Therefore, it encourages the EBRD to define scientifically its baseline during the proposal development by including the following aspects: 1) references (scientific or anecdotal) that support the baseline narrative; 2) baseline data and/or specify a timeline when the data will be collected; and 3) include indicators to measure and monitor each adaptation benefit. Essentially, there is little discussion of specific indicators that could be used to monitor project outputs and outcomes. Certainly, with regard to water resource (and waste-water) systems, physically-based, measurable indicators of system performance are feasible.

4. STAP recommends for the context of the problem statement to be described more explicitly. For example, the proposal indicates that "a reduction in flow of between 43.6 to 88.4 per cent" will occur. However, it would be useful to know more details about this projection: 1) is the reduction for a particular basin? 2) which year is being considered? 3) what is the expected change in precipitation? 4) what is relative contribution of glacial melt versus rainfall to the overall water availability?

5. Additionally, the vulnerability to current climate variability (current vulnerability) also is a part of the baseline, and could be addressed more fully in the proposal. For instance, to what extent are existing systems able to cope with current climate variability?

6. Similarly, the relationship (and dependencies) between water supply and waste water may be brought out more fully in the project overview. Furthermore, STAP recommends considering the climate sensitivity of water supply â€“ that is, what is the climate sensitivity of waste water systems?

7. Under the additional cost reasoning, STAP wishes for EBRD to consider to what extent are the baseline activities likely to lead to an enhancement of the coping range with regard to climate variability? Are the activities for climate change resiliency being proposed different from those being undertaken under the baseline for water infrastructure rehabilitation?

8. For component #1, STAP believes that water resource rehabilitation needs to take into account the availability and variability of the resource - even in the baseline. Therefore, STAP recommends for the adaptation alternative to specify clearly how climate change considerations could change the baseline planning, evaluation methodology, and the process. In this regard, STAP recommends describing further the following aspects: 1)What resolution climate projections are required? 2) Are they available for the cities / regions? 3) What is the local capacity for regional climate modelling, and hydro-climatological scenario generation? 4) Why (and how) will climate change affect water resource demand, particularly since the project is focusing on urban drinking water (rather than agricultural use)? 5) How would socio-economic factors likely affect water resource demand?

9. STAP wishes to share a paper on the Aral Sea Basin water-energy-food-nexus that confirms the baseline description regarding the poor Water Resources Management (WRM) capacity and the threats of climate change that will reduce the mass balance in glaciers in the medium term, producing more runoff (Granit, J. et al. "Regional Options for Addressing the Water, Energy and Food Nexus in Central Asia and the Aral Sea Basin", International Journal of Water Resources and Development, 28:3, 419-432, June, 2012.). (For a copy of the paper, please contact the STAP Secretariat. Jakob Granit is the STAP member for international waters.) The paper also outlines the political economy of cooperation related to increased hydropower development in the upstream countries (Kyrgyzstan and Tajikistan) which will change the hydrology and the cooperative regime in the basin (less water stored for summer irrigation downstream and more HEP generation in the winter months). STAP recommends that EBRD specifically address transboundary issues â€“ for example, how are neighbouring countries tackling similar challenges?

10. Furthermore, STAP recommends defining clearly in component #1 which stakeholders will be involved (as participants or merely to be informed?) and what criteria will be used to define their competencies in this part of the design brief. Further, STAP recommends that the proposed studies support the three activities - (i) risk and vulnerability assessment; (ii) water resources studies; and (iii) design and appraisal methodologies, are much more clearly defined within the full project brief prior to approval. Points (ii) and (iii) in particular should be undertaken in other project frameworks as well.

11. Similarly, component #2 appears to include a number of adaptation alternative activities that also will be required in the baseline. For example, increasing efficiency of water use and rehabilitation of drinking water infrastructure could already be part of the baseline activity. The proposal suggests "new, alternative climate-resilient sources of drinking water" as the main adaptation intervention. It is not clear what this means â€“ unless, these are desalination options. In this regard, STAP recommends defining explicitly the climate-resilient water sources the proposal will develop. Furthermore, would it be valuable to define what the risks are to these new water sources due to climate change?

12. Under component #3, bullet #2 is unclear â€“ that is, how are laboratory facilities a part of the adaptation alternative? If these are for water quality testing, then this is required as a part of the baseline itself. Furthermore, how will strengthening of transparency and governance lead to enhanced capacity to manage climate impacts?

13. Component #3 also appears to lack a policy dimension regarding the enforcement of science-based monitoring, the assumed role of calibrated models to predict flows and storage options, and actions based on a pre-approved strategy and action plan with clear responsibilities for chain of command. It would be useful to address these further in the full proposal.

14. For Component 4: STAP recommends defining what are the incentives proposed for communities to participate in the proposed Water User Committees?

15. STAP notes the EBRD will coordinate its initiative with those of the World Bank and the Asian Development Bank. It also may be useful to share learning that can benefit the implementation of all four components â€“

particularly, in the design of methodologies for designing and appraising water infrastructure projects that are climate-resilient. For example, the World Bank Report "Sustaining water for all in a changing climate (2010), places water resources and management at the core of climate change resilience. It also draws from case studies in Central Asia, including the Kyrgyz Republic.

16. STAP recommends including a gender expert in the project team to develop further and more explicitly targeted interventions addressing the gender dimensions of climate resilience in urban water supply in the Kyrgyz Republic. Alternatively, there are a number of studies and robust guidelines the EBRD may be able to reference to develop gender-disaggregated targeted interventions. To complement these studies and guidelines, STAP suggests referring to the following study on how adaptation is taking place, infering that women (among other vulnerable populations) are frequently under-reported (Refer to Berrang-Ford, L. et al. 2012 "Are we adapting to climate change", Global Environmental Change, Volume 21, Issue 1, February 2011, pg. 25-33).

STAP advisory response	*Brief explanation of advisory response and action proposed*
1. Consent	STAP acknowledges that on scientific or technical grounds the concept has merit. However, STAP may state its views on the concept emphasizing any issues where the project could be improved. Follow up: The GEF Agency is invited to approach STAP for advice during the development of the project prior to submission of the final document for CEO endorsement.
2. Minor revision required.	STAP has identified specific scientific or technical challenges, omissions or opportunities that should be addressed by the project proponents during project development. Follow up: One or more options are open to STAP and the GEF Agency: (i) GEF Agency should discuss the issues with STAP to clarify them and possible solutions. (ii) In its request for CEO endorsement, the GEF Agency will report on actions taken in response to STAP's recommended actions.
3. Major revision required	STAP has identified significant scientific or technical challenges or omissions in the PIF and recommends significant improvements to project design. Follow-up: (i) The Agency should request that the project undergo a STAP review prior to CEO endorsement, at a point in time when the particular scientific or technical issue is sufficiently developed to be reviewed, or as agreed between the Agency and STAP. (ii) In its request for CEO endorsement, the Agency will report on actions taken in response to STAP concerns.