

# 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: February 26, 2014

Screeener: Guadalupe Duron

Panel member validation by: Anand Patwardhan  
Consultant(s):

### I. PIF Information *(Copied from the PIF)*

**FULL SIZE PROJECT SPECIAL CLIMATE CHANGE FUND**

**GEF PROJECT ID:** 5681

**PROJECT DURATION :** 4

**COUNTRIES :** Regional (Jamaica, Mexico, El Salvador)

**PROJECT TITLE:** Building Climate Resilience of Urban Systems through Ecosystem-based Adaptation (EbA) in Latin America and the Caribbean.

**GEF AGENCIES:** UNEP

**OTHER EXECUTING PARTNERS:** Ministry of Environment and Natural Resources (El Salvador), Ministry of Land and Environment (Jamaica), Ministry of Planning and Environmental Policy (Mexico) with support from UNEP " Regional Office for Latin America and the Caribbean (ROLAC)

**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):  
**Consent**

### III. Further guidance from STAP

STAP welcomes UNEP's proposal on "Building climate resilience of urban systems through Ecosystem-based Adaptation (EbA) in Latin America and the Caribbean". The proposal is well written and defines comprehensively the components " including the methodology that will be used to define further the proposed EbA interventions. STAP also is pleased to see the number of references (published and unpublished documents) used to support the narrative and data descriptions. Additionally, the additional cost-reasoning and the adaptation benefits are described adequately.

Some suggestions for strengthening the proposal are provided below:

1. STAP recommends defining explicitly indicators for each adaptation benefit, and the methodology that will be used to measure and monitor the project's performance and impact. In this regard, the project developers may wish to contribute to the evidence base of EbA (and particularly on urban EbA) by identifying indicators that allow us to connect socio-economic outcomes of interest (reduction in flooding and related losses, increased availability of potable water, reduced thermal load) to adaptation measures. This will enable validation of EbA approaches, and the way in which ecosystem restoration/conservation assists in providing ecosystem services that help reduce the communities' vulnerability to climate change and increase their resilience to climate risks within an urban context.

2. The PIF identifies a number of measures, including rainwater harvesting, water recycling, organic matter recycling and ecological sanitation. With the possible exception of ecological sanitation, many of these are measures already used " sometimes quite extensively. It may be worth considering new approaches such as improving the permeability of paved surfaces (for storm-water management) and catchment conservation / restoration (for water supply). There is now a growing literature on the use of natural infrastructure with regard to climate resilience, and it would be good if this knowledge-base could be accessed during project development. While urban agriculture is an interesting concept, its overall role as far as food security is concerned is uncertain, and it may be helpful to focus on current climate risks that are likely to worsen under climate change projections, such as storm-water management, thermal stress and water supply reduction / disruption.

3. The project developers may wish to consider relying on a framework to define the multiple factors influencing climate risks in the target sites (example “ under what circumstances urban populations experience climate related hazards). This includes identifying processes that influence adaptive capacity (economic growth, population growth, and governance issues), as well as risks resulting from environmental processes (such as climate variability). Particularly in the context of poor neighborhoods and informal settlements, it is important to capture the underlying drivers of vulnerability “ that might influence the effectiveness (or lack thereof) of EbA intervention. The following references may be helpful in this regard: 1) Romero-Lankao, P. et al "Scale, urban risk and adaptation capacity in neighborhoods of Latin American cities". (2014). *Habitat International* (42): 224-235; 2) Satterthwaite, D. (2007). *Adapting to climate change in urban areas: the possibilities and constraints in low-and middle-income nations* (Vol. 1). IIED, 3) Leichenko, R. (2011). *Climate change and urban resilience. Current Opinion in Environmental Sustainability*, 3(3), 164-168, 4) Zandersen, M., Jensen, A., Termansen, M., Buchholtz, G., Munter, B., Kastrup Blemmer, M., & Andersen, A. H. (2014). *Ecosystem based approaches to climate adaptation: Urban Prospects and Barriers*. Aarhus University, DCE-Danish Centre for Environment and Energy., 5) Breuste, J., Haase, D., & Elmqvist, T. (2013). *Urban landscapes and ecosystem services. Ecosystem services in agricultural and urban landscapes*. John Wiley & Sons, Ltd, Chichester, 83-104.

4. Furthermore, STAP recommends defining at what scale will the project target its interventions (households, peri-urban communities, cities). This will assist in specifying further the interventions based on the drivers of adaptation capacity and responses (including EbA) that are appropriate to each scale, and across scale. Finally, given that the area of urban resilience and in particular EbA approaches in urban areas is quite nascent but growing in importance, STAP would be happy to be involved in the future development of this project; both to strengthen the scientific and technical aspects, and also to ensure that the opportunities for learning from this project are fully realized.

| <i>STAP advisory response</i>      | <i>Brief explanation of advisory response and action proposed</i>   |
|------------------------------------|---|
| <b>1. Consent</b>                  | <p>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.</p> <p>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.</p>   |
| <b>2. Minor revision required.</b> | <p>STAP has identified specific scientific or technical challenges, omissions or opportunities that should be addressed by the project proponents during project development.</p> <p>Follow up: One or more options are open to STAP and the GEF Agency:<br/>           (i) GEF Agency should discuss the issues with STAP to clarify them and possible solutions.<br/>           (ii) In its request for CEO endorsement, the GEF Agency will report on actions taken in response to STAP's recommended actions.</p>   |
| <b>3. Major revision required</b>  | <p>STAP has identified significant scientific or technical challenges or omissions in the PIF and recommends significant improvements to project design.</p> <p>Follow-up:<br/>           (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.<br/>           (ii) In its request for CEO endorsement, the Agency will report on actions taken in response to STAP concerns.</p> |