

# 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: May 02, 2013

Screener: Lev Neretin

Panel member validation by: Ralph E. Sims  
Consultant(s): Margarita Dyubanova

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

**FULL SIZE PROJECT    GEF TRUST FUND**

**GEF PROJECT ID:** 5059

**PROJECT DURATION :** 5

**COUNTRIES :** Kazakhstan

**PROJECT TITLE:** Nationally Appropriate Mitigation Actions for Low-carbon Urban Development

**GEF AGENCIES:** UNDP

**OTHER EXECUTING PARTNERS:** National Agency for Construction and Housing&Communal Affairs, Ministry of Ministry of Environment Protection , Ministry of Economy and Strategic Planning, City Administrations (Akimats)

**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 this project proposal that has a goal to support the government of Kazakhstan in the development and implementation of National Appropriate Mitigation Actions (NAMAs) at the city level to achieve voluntary national GHG emission reduction target committed during COP-17. STAP believes that this is a good project from the scientific and technical perspective; the baseline situation and projects, project activities, and GEF incremental reasoning are well articulated.

Page 9 it talks about "10-15" management companies being established by 2015 which makes good sense. Since there are 15 cities involved, each will need to have a management company and therefore 15 companies should be established.

STAP wishes to clarify the coordination strategy for this project. The project review sheet states that "Project Board will be set up to ensure the coordination between key partners and beneficiaries". However, the proposal lacks this statement.

STAP suggests more information should be given in the baseline on the current energy demands of the cities and the current GHG emissions.

It is assumed the "municipal heat supply facilities" presently use natural gas as the heating fuel. Biomass is an option to consider but does not appear in the list on page 10 for Prigorodnoye. Samples of the many district heating schemes using bioenergy, or anaerobic digestion plants to produce biogas, or wood pellet boilers, as are all commonly used throughout Europe, should be investigated as low carbon options instead of natural gas.

Table 6, RE "Power Supply" options only list solar and wind. Under "Heat Demand", why is "on-line energy monitoring and dispatch included"? This is for power supply surely.

STAP suggests considering sustainable biomass production and potential markets in the country. The paper T.Srebotnyak, P. Hardi (2011). "Prospects for sustainable bioenergy production in selected former communist countries". Ecological Indicators 11(5), p. 1009-1019.

<http://www.sciencedirect.com/science/article/pii/S1470160X10002232> draws on official statistics and modeling results to conclude that bioenergy potential in Kazakhstan depends on a number of parameters but could be high.

It is not clear whether energy efficiency improvements will target only "residents and/or public municipal authorities". STAP suggests considering commercial buildings and businesses (or are these already classified under the category of "residents"?)

In Component 5 baseline, \$2M is allocated by MEP to the "Establishment of ETS" (page 10). In the baseline project it states the government of Kazakhstan "will establish domestic ETS scheme" – yet it was established in January 2013. The MRV of the ETS for the industry sector is to be linked with the MRV of the ETS for the urban sector which makes good sense. The role for relevant GEF funding is presumably to support the cities link the urban NAMAs with the ETS. This will need close cooperation with the MEP.

STAP invites the project manager to use the STAP tool to assess GHG emissions reductions from EE activities in cities. See <http://stapgef.org/node/792>

Component 3 uses USD 20/t CO2 to be the cost-effective threshold for investment and financing. What is the basis for this number?

The Risks section addresses climate change impacts, which include raising summer temperatures - though cooling is not specifically mentioned for any of the cities. STAP wishes to suggest addressing this need. Are average summer temperatures not high enough to warrant district cooling schemes or other cooling technologies?

The list of UNDP-GEF projects under the climate change portfolio for Kazakhstan provide a useful baseline - but care is needed to avoid overlap with the aims of this proposal.

<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:</p> <ul style="list-style-type: none"> <li>(i) GEF Agency should discuss the issues with STAP to clarify them and possible solutions.</li> <li>(ii) In its request for CEO endorsement, the GEF Agency will report on actions taken in response to STAP's recommended actions.</li> </ul>
<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:</p> <ul style="list-style-type: none"> <li>(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.</li> <li>(ii) In its request for CEO endorsement, the Agency will report on actions taken in response to STAP concerns.</li> </ul>