

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)

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Screeners: Lev Neretin

Panel member validation by: Nijavalli H. Ravindranath
Consultant(s):

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

FULL SIZE PROJECT GEF TRUST FUND

GEF PROJECT ID: 3828

PROJECT DURATION :

COUNTRIES : Syria

PROJECT TITLE: LGGE Energy Efficiency Buildings Codes

GEF AGENCIES: UNDP

OTHER EXECUTING PARTNERS: National Energy Research Centre (NERC)

GEF FOCAL AREA: Climate Change

GEF-4 STRATEGIC PROGRAMS: CC-1;

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

The project aims to develop, test and implement a comprehensive EE building code program, adapting international best practices to improve EE and to impose EE building techniques and codes for new construction in Syria. The PIF is very brief and the amount of information provided is inadequate to make an assessment of the scientific, technological and economic rationale and justification. There is no justification given for what is being proposed, namely, enforcing EE building codes, designs, construction materials, and equipment and construction practices. For these reasons STAP requests that the following issues need to be carefully considered:

1. Selection of technologies, practices and designs: Care must be taken to adopt international best practices (largely from Europe) to the Syrian conditions. Surely there is a need for research and development to develop or adapt EE systems in building construction. This would require assessment of the current practices, sources of construction material (eg., sources of stones, bricks, steel and cement), efficiency of production and transportation of the material and building designs. What materials would be covered under the code; bricks, cement, steel, aluminum, glass, plastic etc.? What will be the composition of the EE package for the buildings? Will it include the building materials, construction, maintenance and operation of the buildings? This information is requested at the CEO endorsement stage.
2. Adaptation/mitigation synergies: PIF makes reference to adapting new construction to changing climate conditions, ie. capturing synergies between climate mitigation and adaptation, which is a welcome approach. How will the synergism be implemented and potential trade-offs avoided? Application of cool or white roofs and passive building design are examples of mitigation/adaption synergies, but there are also trade-offs (i.e., increased demand for air conditioners in urban centers with heat waves). At the CEO endorsement phase, STAP would welcome elaboration of synergies and trade-offs to be explored by this project. Such experience would be of wider significance for the entire GEF partnership.
3. Policy Framework for EE building codes: The project seems to aim at legal and regulatory framework developed for new buildings. STAP raises its doubts on how the proposed EE measures can be enforced in the absence of technologies, institutions, adequate finance and etc.? Furthermore, the project is introducing EE building codes in new buildings. How will these codes or complements to the project interventions address EE retrofit of existing buildings, both in the residential and public/commercial sectors?
4. Incentives for adopting EE building codes: EE building codes would involve incremental costs for the builders/ agents / contractors. What is the incentive for them to adopt these EE codes, since the cost of the building will go up?

Similarly, what is the incentive for families or home owners to incur incremental costs on buildings which conform to EE codes? Will there be adequate finance to meet the demands of the construction companies? Project makes a reference to mobilization of private and public stakeholders as well as financial institutions (component 3), but provides no details how this will be achieved. Awareness raising among stakeholders is not sufficient to assure successful implementation and enforcement of building codes without provision of financial incentives. How this problem will be addressed by the project? STAP recommends conducting a cost-benefit analysis of the proposed measures for different stakeholders to understand implications for investments in EE practices and potential savings for the families and/or the agents.

5. **Baseline Scenario:** What is the baseline scenario in the housing sector of Syria? There is a need to develop estimates of current and projected energy use and emissions in the building sector. Would the savings in the GHG emissions be significant for the potentially large investment required for the new building construction sector? Baseline establishment is recommended at the project preparation stage.

6. **Barrier Analysis:** Before developing EE building codes, there is a need to assess the likely barriers to the proposed interventions to increase EE in building construction sector. Based on the barrier analysis there may be a need to develop financial and institutional mechanisms to promote EE systems in new construction.

7. **Risk Assessment:** The project has several risks and some of them have been identified. However, the mitigation measures are inadequate.

<i>STAP advisory response</i>	<i>Brief explanation of advisory response and action proposed</i>
1. Consent	STAP acknowledges that on scientific/technical grounds the concept has merit. However, STAP may state its views on the concept emphasising any issues that could be improved and the proponent is invited to approach STAP for advice at any time during the development of the project brief prior to submission for CEO endorsement.
2. Minor revision required.	STAP has identified specific scientific/technical suggestions or opportunities that should be discussed with the proponent as early as possible during development of the project brief. One or more options that remain open to STAP include: <ul style="list-style-type: none"> (i) Opening a dialogue between STAP and the proponent to clarify issues (ii) Setting a review point during early stage project development and agreeing terms of reference for an independent expert to be appointed to conduct this review The proponent should provide a report of the action agreed and taken, at the time of submission of the full project brief for CEO endorsement.
3. Major revision required	STAP proposes significant improvements or has concerns on the grounds of specified major scientific/technical omissions in the concept. If STAP provides this advisory response, a full explanation would also be provided. Normally, a STAP approved review will be mandatory prior to submission of the project brief for CEO endorsement. The proponent should provide a report of the action agreed and taken, at the time of submission of the full project brief for CEO endorsement.