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 08, 2017
Screener:	Sunday Leonard
Panel member validation by:	Ralph E. Sims
Consultant(s):	

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

FULL-SIZED PROJECT	**GEF TRUST FUND**
GEF PROJECT ID:	9612
PROJECT DURATION:	5
COUNTRIES:	Mauritius
PROJECT TITLE:	Realising Energy Savings and Climate Benefits of Implementing Mandatory Energy Auditing in Coordination with HCFC Phase-out and HFC Avoidance
GEF AGENCIES:	UNDP
OTHER EXECUTING PARTNERS:	Energy Efficiency Management Office (EEMO)
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): **Concur**

III. Further guidance from STAP

This project aims to remove barriers to implementing energy efficiency through a national energy audit scheme whilst also reducing and phasing out HCFCs (ozone-depleting substances) and avoiding HFC emissions in the refrigeration and air conditioning (RAC) sector. The country is heavily dependent on fossil fuels with bagasse the only main source of renewable energy currently being employed. The project proposes to concentrate its energy efficiency recommendations on steam boilers and RAC systems for large energy consumers, but it is not clear to what extent these depend on fossil fuels.

The Energy Efficiency Management Office was established in 2011 but is very small. Energy efficiency regulations have been in place since the end of 2016, including the requirement for firms to undertake energy audits. The potential for energy savings in Mauritius industrial and tertiary sectors across 650 large energy users was analysed in 2012 to be 14% of the current total demand. AFD has already supported 70 companies with a range of actions but overall the interest by firms and uptake of energy efficiency measures has been weak.

A third of the proposed GEF funding and most of the co-financing goes towards establishing a national credit line for implementing energy audit recommendations and developing models and criteria for use by local banks when assessing requests for credit. Although a fairly novel approach, some experience exists within the existing SUNREF programme.

By encouraging large energy users to adopt energy management and MRV systems, the project aims to stimulate greater uptake by other organisations. Promoting ISO certification and performance standards for appliances will also be involved. A small sum of money is allocated to the promotion of energy efficiency case studies to achieve scale-up by smaller SMEs. Synergies with reducing HCFCs will be identified. The project fits with the country's emission reduction plans listed in its INDC.

The 5 project components aim to overcome the main barriers to reducing emissions from fossil fuel combustion by industry. Similar policies have been undertaken in many other countries so it is hoped the project proponents will undertake a review of lessons learned from these so that the risks of failing to meet the project goals are lessened. For example, the International Energy Agency (IEA) undertakes 5 yearly country reviews of energy policies in its member countries. Successes and failures of numerous energy efficiency measures can be found at www.iea.org

Using 10 firms as case studies to promote the methodologies, as well as ISO certification, is a good approach provided that the chosen companies cover a range of sizes, types and abilities. Training new energy auditors is included in the proposal, with experienced Mascareignes university staff doing the training. However, there can be a large gap between theory and practice when it comes on-site energy audits: the university staff trainers will need to have considerable practical experience. It is not clear how many auditors will be needed, or the necessary basic skill level, and the time needed to impart the knowledge required.

It is claimed that emissions of 1.95 Mt CO2-eq will be avoided from both reduced fossil fuel combustion and reduced and avoided emissions of F-gases. The assumptions made for the calculations are, of necessity, fairly general, but appear to be realistic and the cost value is acceptable ($2.3 /t CO2-eq avoided from GEF funding, around $12/t CO2-eq in total).
The risks mention that future electricity demand from renewables (bagasse bioenergy, mini-hydro and wind power) may be vulnerable to increasing climate variability - true. But why is solar not included given the solar radiation levels and the reduced costs of the technologies? The project does not include the funding of renewable energy systems, so this risk is not really relevant. Improving energy efficiency can provide cost and other benefits, whether for fossil fuel or renewable generation.

Overall the project is not particularly innovative, with many other countries making similar progress but it builds on previous projects in Mauritius and there are many more benefits to be had. It is somewhat surprising it has taken this long to make real progress

STAP advisory response	*Brief explanation of advisory response and action proposed*
1. Concur	In cases where STAP is satisfied with the scientific and technical quality of the proposal, a simple "Concur" response will be provided; the STAP may flag specific issues that should be pursued rigorously as the proposal is developed into a full project document. At any time during the development of the project, the proponent is invited to approach STAP to consult on the design prior to submission for CEO endorsement.
2. Minor issues to be considered during project design	STAP has identified specific scientific /technical suggestions or opportunities that should be discussed with the project proponent as early as possible during development of the project brief. The proponent may wish to: (i) Open a dialogue with STAP regarding the technical and/or scientific issues raised. (ii) Set a review point at an early stage during project development, and possibly agreeing to 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 issues to be considered during project design	STAP proposes significant improvements or has concerns on the grounds of specified major scientific/technical methodological issues, barriers, or omissions in the project concept. If STAP provides this advisory response, a full explanation would also be provided. The proponent is strongly encouraged to: (i) Open a dialogue with STAP regarding the technical and/or scientific issues raised; (ii) Set a review point at an early stage during project development including an independent expert as required. The GEF Secretariat may, based on this screening outcome, delay the proposal and refer the proposal back to the proponents with STAP's concerns.

	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.