

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: March 01, 2013

Screener: Christine Wellington-Moore

Panel member validation by: Hindrik Bouwman
Consultant(s):

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

FULL SIZE PROJECT GEF TRUST FUND

GEF PROJECT ID: 4392

PROJECT DURATION : 4

COUNTRIES : Egypt

PROJECT TITLE: Protect Human Health and the Environment from Unintentional Releases of POPs Originating from Incineration and Open Burning of Health Care- and Electronic-waste

GEF AGENCIES: UNDP

OTHER EXECUTING PARTNERS:

GEF FOCAL AREA: POPs

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

PIF Information Extract:-

The project seeks to protect human health and the environment from unintentional releases of POPs originating from incineration and open burning of health care- and electronic waste. The project objective is stated as: "Facilitate the incorporation of SMC and POPs issues into national development planning processes to collectively address and advance POPs and UPOPs management efforts as well as other pressing chemical management priorities at national level in support of chemical-related Conventions (Component 1) Protect human- and environmental health by reducing releases of POPs and other hazardous releases (e.g. mercury, lead, etc.) resulting from the unsound management of waste, in particular the incineration and open burning of hazardous health care waste (Component 2) and electronic waste (Component 3) by demonstrating and promoting Best Available Techniques (BAT) and Best Environmental Practices (BEP) to soundly manage and dispose of such wastes". This project aims to reduce the annual TEQ release of 2 785 g TQ per annum (according to NIP) by 9-50 g TEQ per annum, and the reduction in mercury emissions reduced (from an as yet unknown baseline) by 433 kg per annum.

STAP Guidance:

This is a very ambitious project as mainstreaming sound management of chemicals (SMC)/POPs across sectors is always challenging. Though there is much reference to replication of project results, it is hoped that the PPG will yield a clear replication strategy for project outcomes.

Comments on Health Care Waste Component

The PIF does not draw out any intention to include measures to decrease the Health Care Waste generated at source, which would also act to reduce uPOPs. STAP wishes to make broad suggestions to improve the project development process:

(i) Given the quality of thought given to the proposed project interventions, the STAP is certain that current guidance is already being consulted by the project developers. However, all of the guidance being used it is not explicitly stated, so some possible guidance is suggested below:- though there is mention that the project will build upon the outputs of the Global GEF/ UNDP/WHO healthcare waste and mercury management project, which is still incomplete. At the risk of belabouring a point, the STAP simply reminds developers to be sure to use current guidance and case studies such as:

- (a) The WHO Chapter on health care waste minimisation and management (http://www.who.int/water_sanitation_health/medicalwaste/058to060.pdf). There is practical advice to minimise waste such as reducing the use of injections and hence generation of PVC waste through use of pills.
- (b) The Global GEF/ UNDP/WHO healthcare waste and mercury management project (still incomplete)
- (c) Case studies such as "Best Practices in Health Care Waste Management: Examples from four Philippine Hospitals" (http://www.noharm.org/lib/downloads/waste/Best_Practices_Waste_Mgmt_Philippines.pdf)
- (d) The USEPA website gives links to "Hospital Prevention (P-2) strategies" (California Department of Health Services), and a "Guide to Mercury Assessment and Elimination in Health Care Facilities" (<http://www.epa.gov/region9/waste/p2/hospart.html>) which gives a breakdown of equipment of concern, methods of planning and implementation of HCW strategies and plans, and could be a good practical guide of past experience, complete with cost-benefit analyses. The page also includes a section on Pollution Prevention for Health care Professionals, which could help inform any training packages put together for doctor and nursing staff.

Therefore the STAP strongly recommends that developers should examine even non-GEF experiences in this field, since the GEF has limited experience in this area of work.

- (ii) Another thing not explicitly stated in the project is the reduction of the municipal type of waste generated by hospitals, which can make up about 80% of the total waste. Incineration of such waste leads to uPOPs as well, and it should be targeted in the overall training of the medical staff (see suggested guidance from EPA et. al.)
- (iii) In the Risk table, though rated low, there is risk associated low prioritisation of implementation of the National HCWM strategy both by decision makers and other stakeholders. However, cost-benefit analysis to show savings to the hospitals, and ultimate reduction of burden to workers managing smaller quantities of waste have often been the "selling point" that leads to successful implementation of HCWM in facilities. Acknowledging the stated intent to explore other project experiences, the STAP again emphasises the need to do a thorough search of case studies and lessons learned, and to find ways to incorporate these benefits meaningfully into the various stakeholder trainings and awareness activities, such that each group can see the benefits brought to bear for their particular group and the facility as a whole.
- (iv) The document indicates an intention to implement the National HCWM Strategy which focuses on centralized, non-incineration treatment technologies. Where centralised disposal may be necessary, care should be taken that appropriate transportation protocols are followed, as one would other Hazardous chemicals, taking into account any possible seasonal threats to the route selected that may be made more severe due to Climate Change. Should there be long distances be involved, this increases the chance of mishaps, spills and environmental and population exposure, which can be compounded by natural, weather-related events that may threaten transport (eg dust storms). This aspect is not covered in B.4.
- (v) Though they should be low, once all is implemented appropriately, should there not be a risk associated with inappropriate use of non-combustible, decontamination techniques, such that infectious waste might "slip through the cracks" as the waste handlers get up to speed in using these alternative techniques? There needs to be some mention of this, and the risk mitigation protocols that will be put in place to make sure that the overall HCWM runs as planned.
- (vi) The Dioxin Toolkit might be used to obtain a more detailed and appropriate TEQ emission number for medical wastes disposed. STAP would like to see this being done as it would provide better quantitative indicators for project monitoring via the POPs tracking tool.

Comments on the E-Waste Component

The STAP has no specific comments at this stage. However, it is hoped that where there is centralization of e-waste processing, those smaller operators might somehow be afforded opportunity to be involved in the workings of centralized processing centres. Again, effort should be made to source appropriate guidance and project experience, whether within or without the GEF experience.

<i>STAP advisory response</i>	<i>Brief explanation of advisory response and action proposed</i>
1. Consent	<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>

<p>2. Minor revision required.</p>	<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> <p>(i) GEF Agency should discuss the issues with STAP to clarify them and possible solutions.</p> <p>(ii) In its request for CEO endorsement, the GEF Agency will report on actions taken in response to STAP's recommended actions.</p>
<p>3. Major revision required</p>	<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> <p>(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.</p> <p>(ii) In its request for CEO endorsement, the Agency will report on actions taken in response to STAP concerns.</p>