

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 04, 2012

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

FULL SIZE PROJECT GEF TRUST FUND

GEF PROJECT ID: 4890

PROJECT DURATION : 4

COUNTRIES : Uruguay

PROJECT TITLE: Towards a Green Economy in Uruguay: Stimulating Sustainable Production Practices and Low-emission Technologies in Prioritized Sectors

GEF AGENCIES: UNIDO

OTHER EXECUTING PARTNERS:

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

The project supports energy from biomass use from agriculture and food processing wastes (although the title does not reflect this). It corresponds to GEF Strategic Objectives CCM-1 and CCM-3 by supporting demonstration and policy developments in bioenergy technologies. The project supports Uruguayan climate change and energy policies. STAP welcomes this initiative, and further proposes that project proponents consider the following during full project preparation:

1. Rationale: In this largely agricultural economy, organic wastes have been of limited value and disposed of by the cheapest methods (disposal to land or in waterways without treatment). Recent intensification of agro-industrial processes has encouraged some improvements to waste treatment practices but much remains to be achieved. Small municipal solid waste schemes are also supported by the project. If a value could be placed on these waste biomass materials for use as energy feedstocks, environmental benefits and economic gains at the local and national levels could be achieved. Bioenergy from forest residues and bagasse is already utilised for heat and power production. Many other opportunities exist for farmers and food processing industry to utilise the biomass wastes and hence avoid disposal costs. STAP suggests consideration of opportunity costs of biomass resources.

2. Barrier removal: Few bioenergy/ biogas plants exist in Uruguay so demonstration plants will be useful to increase knowledge and encourage replicability. Training is a key component for success. Integrating electricity into the grid (when not fully used on site) could become an issue and should be considered during project preparation.

Baseline: Government initiatives to reduce pollution from waste disposal exist, supported by international finance. However, more effort is required and stronger regulations are needed and those have to be complemented by financial incentives. The GEF project aims to overcome technological barriers, though it is difficult to separate these from the other barriers so policy guidance should also be addressed by project proponents. Designing and manufacturing hardware locally is one of the project aims, though it may be possible that suitable equipment already exists and could be easily imported in the short term. This may be the appropriate option for specialist components such as pumps, boilers or generators. STAP recommends exploring further these opportunities.

3. Demonstration plants: Two of the proposed plants are for treatment of manure/effluent from large dairy herds. Need for two similar demonstration projects could be considered. How will they differ and are they representative? Treatment of effluent from biofuel processing plants is widely undertaken elsewhere – have these overseas plants been evaluated? The 4th proposal relates to smaller dairy farms. With this mix, consideration should be given to replacing one large dairy farm demonstration with a food processing option that represents what could be achieved by

this industry sector. Upgrading the biogas produced to biomethane more suitable for use in internal combustion engines has not been covered in the proposal. Has it been integrated into plant designs and included in the investment costs?

It is not clear why pilot plants have been suggested. Normally these are useful to prove a new technology prior to scaling up to full commercial-scale. The technologies proposed here are mature, even though they have not been used in Uruguay. So from the technical perspective, given the plant suppliers will probably be from elsewhere, they should be able to advise on plant operation after construction, thereby eliminating the need for pilot plants.

4. Climate change abatement: The direct GHG savings are modest but must be linked with the other significant environmental benefits resulting as well as the improved social issues anticipated.

Note: A recent FAO report "Energy-Smart Food for People and Climate" is relevant in the context of this project: <http://www.fao.org/docrep/014/i2454e/i2454e00.pdf>

<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.