



**United Nations
Environment
Programme**

Distr.
LIMITED

UNEP/OzL.Pro/ExCom/40/44
13 June 2003

ORIGINAL: ENGLISH



EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Fortieth Meeting
Montreal, 16 -18 July 2003

PROJECT PROPOSAL: TRINIDAD AND TOBAGO

This document consists of the comments and recommendation of the Fund Secretariat on the following project proposal:

Phase out

- Terminal phase-out management plan for CFCs (first tranche)

UNDP

**PROJECT EVALUATION SHEET
TRINIDAD AND TOBAGO**

SECTOR: Phase out ODS use in sector (2002): 63.6 ODP tonnes

Sub-sector cost-effectiveness thresholds: n/a

Project Title:

(a) Terminal phase-out management plan for CFCs (first tranche)

Project Data	Phase out
Enterprise consumption (ODP tonnes)	
Project impact (ODP tonnes)	63.6
Project duration (months)	66
Initial amount requested (US \$)	910,800
Final project cost (US \$):	
Incremental capital cost (a)	910,800
Contingency cost (b)	
Incremental operating cost (c)	
Total project cost (a+b+c)	910,800
Local ownership (%)	100%
Export component (%)	0%
Amount requested (US \$)	561,000
Cost effectiveness (US \$/kg.)	n/a
Counterpart funding confirmed?	n/a
National coordinating agency	Environmental Management Authority
Implementing agency	UNDP

Secretariat's Recommendations	
Amount recommended (US \$)	
Project impact (ODP tonnes)	
Cost effectiveness (US \$/kg)	
Implementing agency support cost (US \$)	
Total cost to Multilateral Fund (US \$)	

PROJECT DESCRIPTION

Background

1. At its 38th Meeting, the Executive Committee allocated US \$15,000 to UNDP for the preparation of a RMP update project proposal for Trinidad and Tobago. Instead, UNDP prepared a terminal CFC phase-out management plan (TPMP) to achieve the complete phase-out of ODSs in the country by 1 January 2009.

Refrigeration servicing sector

2. The CFC baseline for compliance is 120 ODP tonnes.

3. In 2001, the CFC consumption reported by the Government of Trinidad and Tobago to the Ozone Secretariat was 79.2 ODP tonnes, used for servicing domestic refrigerators (12 ODP tonnes), commercial and retail food refrigeration systems (18.2 ODP tonnes), MAC units (44 ODP tonnes) and chillers (5 ODP tonnes). However, in 2002, CFC consumption reported in the progress report on the implementation of the country programme was 63.6 ODP tonnes.

4. There are about 100 service workshops in the country and a large number of technicians in the informal sector who also undertake MAC repairs and “topping off” systems.

Licensing system

5. Since 1999, the Government of Trinidad and Tobago has implemented an ODS import quota and licensing system (licenses are issued by the Ministry of Trade). The ODS quota is agreed annually between the Ministry of Trade, Environmental Management Agency and importers.

Summary of approved projects in the refrigeration servicing sector

6. So far, the Executive Committee has approved US \$407,490 for the implementation of the following projects in the refrigeration servicing sector in Trinidad and Tobago:

- (a) Train the trainer programme in good refrigeration practices (US \$50,000), through which 20 trainers, 13 teachers and 400 services technicians were trained;
- (b) Train the trainer programme for customs officers on control/monitoring of ODS (US \$26,500), through which 431 customs officers, 12 trade officers and government staff and 21 persons from the private sector and importers were trained;
- (c) MAC recycling programme (US \$117,000), through which 47 technicians from 26 MAC service workshops were trained in the operation of recovery/recycling machines and on good service practices. The project provided equipment to

18 workshops. Implementation of the project has resulted in an estimated phase out of 6 to 7 ODP tonnes/year, compared with a phase out of 10 ODP tonnes/year that was expected at the time of its approval; and

- (d) National refrigerant recovery and recycling programme (US \$213,990), which included 75 recovery machines, three central recycling units and technical support. Equipment was provided to 69 service shops; a total of 150 technicians from 75 service shops were trained in the use of recovery/recycling machines. The expected impact was a reduction in CFC-12 consumption of 18.5 ODP tonnes/year. However, these facilities have been under utilized; and only 3.5 ODP tonnes of CFC-12 have been recovered.

7. From the the implementation of the recovery and recycling programmes, it was concluded that the low price and large availability of CFCs continues to be a deterrent to recycling; the small CFC charge in domestic refrigerators works against recycling; the availability of parts for servicing recovery/recycling units and the training of technicians on a continuous basis are essential; and the role of the Ozone Unit in data collection and monitoring is critical.

Total cost and proposed activities

8. UNDP calculated the total cost of the ODS phase out on the basis of considering the replacement and/or retrofit of the existing MAC, domestic and commercial refrigeration units, replacement of some chillers, in addition to some recovery and recycling units and training. The cost thus calculated amounted to US \$17.3 million. However, the requested cost, while maintaining the recovery and recycling component and training, does not include separate requests for the replacement of MAC and domestic refrigeration units; requests for commercial refrigerators and chillers were maintained at reduced amounts. The breakdown of the two sets of costs is presented in the following table:

Component	Phase out cost (US \$)	Requested cost (US \$)
MAC recovery/recycling	250,400	250,400
Other recovery/recycling	94,400	94,400
MAC retrofit/replace	8,250,000	Included in MAC
Domestic refrigeration retrofit /replace	4,000,000	Included in R&R
Commercial refrigeration	812,200	320,000
Chillers	3,850,000	192,500
Training	43,500	43,500
Policy and legislation	10,000	10,000
Total	17,310,500	910,800

Action programmes

9. The TPMP will be implemented through two action programmes: the first programme, covering the period 1 July 2003 to 30 June 2006, includes a funding request of US \$561,000; the second programme, from 1 July 2006 to 1 January 2009, includes a funding request of US \$349,800.

10. UNDP will provide technical and policy guidance and oversee the TPMP at the national level. Each action programme will designate the responsibilities of the Environmental Management Agency and those actions to be delegated to any other entity.

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

11. To date, the Executive Committee has approved US \$408,874 for CFC phase out projects and activities in the refrigeration servicing sector in Trinidad and Tobago. As provided under Section A of Decision 31/48, the maximum level of additional funding for the RMP update would be US \$200,000, which is less than a quarter of the cost requested.

12. The Executive Committee has taken several decisions on the use of the limited resources available during the 2003-2005 triennium for assisting all Article 5 countries to achieve their immediate phase-out targets of the Montreal Protocol: the 2005 and 2007 targets for CFC and the 2005 targets for halons, TCA, CTC and methyl bromide (namely, paragraphs a, b and c of Decision 38/66, Decision 39/5 (e) and Decision 39/49). Furthermore, the 2003-2005 replenishment of the Multilateral Fund, as adopted by the Parties at their 14th Meeting (Decision XIV/39), was based on the requirements by all Article 5 countries to achieve their immediate phase-out targets of the Montreal Protocol.

13. Based on the above decisions, and taking into consideration that the Government of Trinidad and Tobago will phase out CFC consumption by 2009 (only one year in advance of the Montreal Protocol's phase out target), the Secretariat concluded that the project proposal for Trinidad and Tobago should be considered as an RMP update, rather than a TPMP.

14. The Secretariat also raised a number of technical, cost and eligibility issues with UNDP, including:

- (a) The rationale used for estimating the CFC consumption in the MAC sector, since no information was provided on the number of vehicles with a functioning CFC-based unit in the country, the number of units serviced annually and the amount of refrigerant used and whether HFC-134a MAC units were being serviced with CFC-12 refrigerant;
- (b) The amount of CFCs estimated to be recovered and recycled on a yearly basis over the next 6 years, taking into consideration the low recovery and recycling rate of CFCs so far approved through the implementation of the recovery and recycling projects approved in 1997, and that the number of discarded CFC-based equipment will increase on a yearly basis and the amount of CFC potentially to be recovered will decrease proportionally;
- (c) The costs and eligibility issues related to prices of recovery and recycling machines (US \$4,200/unit), the request for replacement of commercial refrigerators (US \$320,000), and the request for chiller replacement (US \$192,500) which, at this time, is not eligible; and

- (d) The long-term sustainability of the proposed retrofit sub-projects taking into consideration that the price of HFC-134a is between 1.7 and 2.3 times the price of CFC-12.

15. UNDP responded to the above issues as follows:

- (a) Although imports of CFC-based equipment are now restricted, spare parts (CFC-based compressors and condensers) can still be imported for servicing existing equipment. According to local sources, a MAC system can operate for 20 years;
- (b) There is no significant cross-use of CFC-12 in HFC-134a systems at present. However, given that this possibility can arise, the first action plan will address this issue to enhance sustainability of retrofits;
- (c) The cost for recovery and recycling machines was increased due to the relatively small numbers of units proposed. The higher costs allow suppliers to provide on-site technical support and service (this need was identified as lacking during implementation of the initial project);
- (d) Retrofit of CFC-based equipment will not be viable as long as CFC is available at a low price. However, the proposed incentive programme is only a demonstration that acknowledges that a certain amount of effort will be required in this area;
- (e) Chiller replacement must be considered as part of a CFC phase-out plan. Given the pending study requested by the Parties from the TEAP, as well as the study requested by the Executive Committee, this project component could be considered as part of the 2nd action plan.

16. The Secretariat also pointed out that the total amount of funds for addressing CFC consumption in the refrigeration sector in Trinidad and Tobago would rise to US \$1.32 million (including US \$410,000 already approved for the RMP). Should this TPMP be approved, this amount would be about double the amount approved for the TPMP of Bahamas, Croatia and Jamaica, where the CFC phase out will be achieved by 2006 in Croatia and Jamaica and by 2007 in Bahamas. UNDP indicated that it was difficult to compare the situation faced by one country with that of another given that circumstances often vary. For example, in the case of the Bahamas, all remaining CFC use was in the MAC sector, with no phase-out in commercial refrigeration and no chiller component.

RECOMMENDATION

17. UNDP advised the Secretariat that it was still discussing with the Government of Trinidad and Tobago outstanding issues raised by the Secretariat, in particular the submission of the project proposal as a RMP update (in accordance with Decision 31/48) or as a TPMP, the feasibility of achieving the complete phase out of CFCs earlier than the proposed date of 1 January 2009, modifications to the proposed action plan in accordance with the compliance oriented model, and issues related to the total level of funding requested. The results of this discussion will be communicated to the Executive Committee prior to the 40th Meeting.
