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EXECUTIVE COMMITTEE OF THE MULTILATERAL FUND FOR THE IMPLEMENTATION OF THE MONTREAL PROTOCOL Thirty-seventh Meeting Montreal, 17-19 July 2002

## PROJECT PROPOSAL: COTE D'IVOIRE

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

## Refrigeration

•	Project preparation	for	projects	in	commercial	refrigeration	France
	production facilities						
•	Implementation of the	e RM	P: monit	orin	g the activitie	s of the RMP	France
	and set up of an impor	rt/ex	ort licens	ing	system		
•	ODS phase out in 50	existi	ng centrif	ugal	chiller units		France

# PROJECT EVALUATION SHEET COTE D'IVOIRE

SECTOR: Refrigeration ODS use in sector (1998): 131.58 ODP tonnes

Sub-sector cost-effectiveness thresholds: Commercial US \$13.76/kg

## Project Titles:

(a) Project preparation for projects in commercial refrigeration production facilities

- (b) Implementation of the RMP: monitoring the activities of the RMP and set up of an import/export licensing system
- (c) ODS phase out in 50 existing centrifugal chiller units

Project Data	<b>Project Preparation</b>	RMP		
	Commercial Refrigeration Manufacturing Sub-sector	Import/Export Licensing and RMP Monitoring	Chillers	
Enterprise consumption (ODP tonnes)			18.00	
Project impact (ODP tonnes)			18.00	
Project duration (months)			48	
Initial amount requested (US \$)	15,000	77,000	1,000,000	
Final project cost (US \$):				
Incremental capital cost (a)				
Contingency cost (b)				
Incremental operating cost (c)				
Total project cost (a+b+c)	15,000	49,500	16,119,158	
Local ownership (%)			100%	
Export component (%)			0%	
Amount requested (US \$)	15,000	49,500		
Cost effectiveness (US \$/kg.)				
Counterpart funding confirmed?				
National coordinating agency		Bureau de l'ozone		
Implementing agency		France		

Secretariat's Recommendations			
Amount recommended (US \$)	15,000	49,500	
Project impact (ODP tonnes)			
Cost effectiveness (US \$/kg)			
Implementing agency support cost (US \$)	750	4,950	
Total cost to Multilateral Fund (US \$)	15,750	55,450	

#### PROJECT DESCRIPTION

## Sector background

- Latest available total ODS consumption (2000)	215.00 ODP tonnes
- Baseline consumption of Annex A Group I substances (CFCs)	294.20 ODP tonnes
- Consumption of Annex A Group I substances for the year 2000	215.000 ODP tonnes
- Baseline consumption of CFCs in refrigeration sector	131.58 ODP tonnes
- Consumption of CFCs in refrigeration sector in	215.000 ODP tonnes

- 1. The ODS consumption in Côte d'Ivoire was reported to be 215 ODP tonnes in 2000. Côte d'Ivoire is a low-volume-consuming Article 5 Country. The Refrigerant Management Plan for Côte d'Ivoire was approved at the 24<sup>th</sup> Meeting at a cost of US \$227,650 with an anticipated ODS phase out of 24.8 ODP tonnes resulting from recovery/recycling activities. The 50% phase out target for Côte d'Ivoire in 2005 is 147.1 ODP tonnes.
- 2. France has submitted to the 37<sup>th</sup> Executive Committee meeting a bilateral project proposal in the context of, and as an update to the Refrigerant Management Plan of Côte d'Ivoire, consisting of the following sub-projects:
  - (a) Project preparation activities in the commercial refrigeration manufacturing sub-sector (US \$15,000);
  - (b) Establishing a licensing system and monitoring of RMP activities (US \$77,000); and
  - (c) Project for CFC phase-out in 50 centrifugal chillers (US \$1,000,000).

#### Project preparation activities in commercial refrigeration manufacturing sub-sector

3. According to the information from the Ozone Unit, there are at least three enterprises manufacturing commercial refrigeration equipment in Côte d'Ivoire. The estimated ODS consumption of these enterprises is about 5 ODP tonnes.

## Establishing a licensing system and monitoring of RMP activities

4. The project proposal is to provide technical assistance to establish an import/export licensing system, and to harmonise the customs system in Côte d'Ivoire, and to establish a monitoring system for the implementation of the RMP approved by the Executive Committee at its 24<sup>th</sup> Meeting.

## Project on CFC phase-out in 50 centrifugal chillers

- 5. It is indicated that there are 57 CFC-12- and CFC-11-based air-conditioning chillers operating in Côte d'Ivoire. The total CFC emissions associated with operations of these chillers are estimated to be 18.3 ODP annually. The chiller replacement project is to be part of a comprehensive electricity saving programme in Côte d'Ivoire consisting of the following: replacement of 50 chillers (US \$6,57 million), upgrading electrical systems and improvements in management of buildings, upgrading of water towers, water pumping systems and air treatment systems (US \$7.4 million) and other costs, including auditing, training, monitoring of implementation (US \$2.15 million).
- 6. The total cost of the programme is estimated at US \$16.1 million. Of this total cost, the proposal indicates that US \$1,000,000 would be provided as bilateral assistance from the Government of France to the Multilateral Fund, US \$1.6 million would be provided from France's contribution to GEF (Global Environment Facility) programme and the remaining portion (US \$13.5 million) will be covered from loans obtained from commercial banks by building owners. The implementation of this programme will result in the reduction of energy bills paid by building owners. The total payback period is assessed at 5.4 years, which would enable building owners to obtain the necessary commercial loans.
- 7. The proposed US \$1.0 million contribution requested from the Multilateral Fund together with the GEF contribution of US \$1.6 million will eventually result in the reduction of annual CFC emissions of 18 ODP tonnes. The cost-effectiveness of the project to the Multilateral Fund is therefore US \$55.5/ kg ODP.

#### SECRETARIAT'S COMMENTS AND RECOMMENDATIONS

#### **COMMENTS**

8. The Secretariat has extensively discussed all the components of the proposal with the Government of France.

#### Project preparation activities in commercial refrigeration manufacturing sub-sector

9. The Secretariat has no comments on this component.

### Establishing licensing and monitoring of RMP activities

10. The RMP for Côte d'Ivoire was approved prior to the adoption of Decision 31/48, which provides guidance on the submission of RMPs. The Secretariat noted that the RMP approved at the 24<sup>th</sup> Meeting included activities for training customs officers in the management and monitoring of ODS imports and in data management systems, which appears to be similar to the project proposal submitted to the 37<sup>th</sup> Meeting.

- 11. The Secretariat also noted that the Executive Committee approved, at its 32<sup>nd</sup> Meeting a project on harmonisation of legislative and regulatory mechanisms to improve monitoring and control of ODS consumption (US \$200,000 for UNEP's implementation). The project is to assist French-speaking African countries in developing, adopting and implementing harmonised subregional legislative and regulatory mechanisms for ODS imports, as well as customs training curricula; fostering regional co-operation amongst national regulatory and customs authorities; encouraging the adoption of local solutions; and enhancing enforcement and compliance with the control measures contained in the Montreal Protocol. These activities are similar to those activities in the project submitted to the 37<sup>th</sup> Meeting.
- 12. The Government of France advised the Secretariat that, over the last two years, Côte d'Ivoire was facing several political and financial crises. This situation delayed the implementation of the RMP, particularly the implementation of the recovery and recycling scheme and the customs training programme which were conditioned by implementation of a regulation framework. The Government of France received a letter from the Prime Minister explaining that this regulation will be expedited and that the Governmental Decree was signed by other ministers. At the same time, the Minister of Environment recruited a technical consultant to provide guidance in selecting a company responsible to manage the recovery and recycling subproject, draft technical specifications of equipment, and assist the Government in drafting the contract to be signed between the Ministry of Environment and the selected companies.
- 13. After further discussions with the Secretariat, the Government of France agreed to request US \$16,500 for the implementation of the import/export licensing system, on the understanding that the implementation of the project will be co-ordinated with UNEP; and US \$33,000 for monitoring the implementation of the activities in the original RMP.

### Chiller component

- Côte d'Ivoire is a low-volume-consuming Article 5 country with 1999 consumption of 14. 166.2 ODP tonnes. The RMP of Côte d'Ivoire was approved at the 24<sup>th</sup> Meeting prior to adoption of Decisions 31/48 (b) and (d) and 33/13 which outline the policies for preparation and consideration of additional activities in RMPs, which have already been approved for low-volume-consuming countries. Specifically, LVCs with RMPs already approved may submit to the Committee requests for funding of additional activities necessary to reduce consumption and thereby ensure compliance with the Protocol. Such additional activities should be essential parts of their comprehensive strategy for phase out in the refrigeration sector. Additional funding shall not exceed 50% of the funds approved for the original RMP. Furthermore, requests for additional funding should be accompanied by: (i) a justification for the additional activities to be funded in the context of the country's national phase-out strategy; (ii) a clear explanation of how this funding, together with the initial RMP funding and steps to be taken by the government, will ensure compliance with the Protocol's reduction steps and phase out; (iii) a commitment to achieve, without further requests for funding for the RMP, at least the 50% reduction step in 2005 and the 85% reduction step in 2007.
- 15. The component of the proposed RMP update Replacement of chillers at a total cost of US \$1,000,000 significantly exceeds the allowable threshold corresponding to 50% of the cost of

the approved RMP in this country (US \$113,825), on this basis, the proposal does not appear to meet the requirements of relevant Executive Committee decisions.

- 16. The Government of France has indicated its view that the level of funding provided in the existing RMP being implemented by France is lower in terms of US \$ /kg ODP to be phased out in Côte d'Ivoire in comparison with other low-volume-consuming countries. Additionally, a project in the chiller sector being economically attractive and viable deserves to be approved in Africa since two demonstration projects were approved in Asia and Latin America.
- 17. The Secretariat also referred in its comments to the decision taken at the 12<sup>th</sup> Meeting, which addresses the issue of ODS phase out in the chiller sub-sector. There are three basic ways in which Article 5 countries can meet their obligations to phase out the consumption of CFC refrigerants used in the chiller sector. These are replacement, retrofit and refrigerant containment, including recycling, respectively. Under chiller replacement option, it was recommended "that the Executive Committee approves the replacement of CFC chillers as a first priority of strategic options in ODS phase-out in the chiller sector. Implementing agencies should be requested to focus their activities on the replacement options in addressing ODS phase-out in the chiller sector. Energy savings should be taken into consideration when calculating the incremental costs of replacement."
- 18. Modern chillers are very efficient in terms of energy consumption in comparison with old chillers. In the case of Côte d'Ivoire the Government of France has agreed with the Secretariat's calculation that the payback period for replacement of chillers would be about 4.5 years. Because of this, the Secretariat questioned whether there was any basis for incremental costs to be considered as eligible. The Secretariat noted that loan mechanisms were used for financing chiller replacement programmes in Thailand and Mexico
- 19. In its response to the Secretariat's comments, the Government of France noted that the recommendations adopted at the 12<sup>th</sup> Meeting supported the refrigerant containment option. The Government of France indicated that the proposed funding of US \$1 million could be considered for approval on the basis that it would contribute to refrigerant containment measures and good practices. It would therefore be eligible according to the Executive Committee policies. However, the approval would need to include flexibility in the use of the funds, so that, once approved, allocations could be used by owners of buildings in Côte d'Ivoire to leverage additional funding from French GEF and other sources to fund the replacement of the chillers.

## RECOMMENDATIONS

- 20. The Executive Committee may wish to consider the eligibility of the proposal for the ODS phase out in 50 existing centrifugal chiller units in light of the Secretariat's comments above.
- 21. The Secretariat recommends blanket approval of the requests for the project preparation in commercial refrigeration production facilities, and for the establishing licensing system and monitoring of RMP activities as indicated in the table below.

	Project Title	Project	<b>Support Cost</b>	Implementing
		Funding (US\$)	(US\$)	Agency
` /	Project preparation for projects in commercial refrigeration	15,000	750	France
	production facilities			
(b)	Implementation of the RMP: monitoring the activities of the	49,500	4,950	France
	RMP and set up of an import/export licensing system			

22. The amount should be offset against the balance of the Government of France's bilateral contribution for the year 2002.

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