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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Forty-fifth Meeting
Montreal, 4-8 April 2005

PROJECT PROPOSAL: LESOTHO

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

Refrigeration

- Terminal CFC phase-out management plan (second tranche) Germany

**PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS
LESOTHO**

PROJECT TITLE**BILATERAL/IMPLEMENTING AGENCY**

Terminal CFC phase-out management plan (second tranche)	Germany
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NATIONAL CO-ORDINATING AGENCY:

National Ozone Unit, Lesotho Meteorological Services

LATEST REPORTED CONSUMPTION DATA FOR ODS ADDRESSED IN PROJECT**A: ARTICLE-7 DATA (ODP TONNES, 2004, AS OF FEBRUARY 2005)**

CFC-12	1.2		
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B: COUNTRY PROGRAMME SECTORAL DATA (ODP TONNES, 2003, AS OF 2004)

ODS	Foam	Ref.	Aerosol	ODS	Solvents	Process agent	Fumigant
CFCs		1.2					

CFC consumption remaining eligible for funding (ODP tonnes)

1.2

CURRENT YEAR DRAFT BUSINESS PLAN: Total funding US \$39,550; phase-out 0.8 ODP tonnes.

PROJECT DATA	2003	2004	2005	2006	2007	2008	2009	2010	Total
Montreal Protocol limits		5.1	2.55	2.55	0.76	0.76	0.76	0	
Annual consumption limit		1.4	0.8	0.4	0				2.6
Annual phase-out from ongoing projects									
Annual phase-out newly addressed									
Annual unfunded phase-out									
TOTAL ODS CONSUMPTION TO BE PHASED OUT									
Total ODS consumption to be phased-out	0.6	0.6	0.4	0.4					
Project cost as originally submitted (US \$)									
Final project costs (US \$):									
Total project funding	75,000	35,000	17,300						127,300
Final support costs (US \$):									
Total support costs	9,750	4,550	2,249						16,549
TOTAL COST TO MULTILATERAL FUND (US \$)	84,750	39,550	19,549						143,849
Final project cost effectiveness (US \$/kg)									n/a

SECRETARIAT'S RECOMMENDATION

For individual consideration

PROJECT DESCRIPTION

Background

1. The Lesotho CFC Terminal Phase out Management plan (TPMP) was approved by the Executive Committee at its 41st Meeting, with total funding of US \$127,300 approved in principle. At the same meeting, the Executive Committee approved US \$75,000, plus agency support cost for Germany, for the implementation of the 1st work programme. The aim of the project is to assist the Government of Lesotho to completely phase-out its CFC consumption by 2008.
2. According to the project proposal, Lesotho should have requested funding for the 2nd tranche at the 44th Meeting. Since funds were still remaining from the 1st work programme at that time, the Government of Lesotho decided to request the second tranche at the 45th Meeting of the Executive Committee.
3. Together with the request for the second work programme, the Government of Lesotho submitted a progress report on the implementation of the 1st work programme for consideration by the Executive Committee.

Progress report on the implementation of the 1st work programme

4. A two-day customs training session was conducted in September 2004. A total of 28 officers from all of the country's 14 border posts, the national police, refrigeration association and health department were trained. Five refrigerant identifiers (as requested by Lesotho) were provided, and comprehensive demonstration on the use of these units was conducted during the workshop.
5. The training was organized in coordination with the Lesotho Refrigeration Association, which is actively helping the Ozone Unit implement the TPMP. Prior to the start of the technician training courses, training equipment and tools were purchased by the Ozone Unit, the Lesotho Refrigeration Association and the Lerotholi Training Centre, which is the main refrigeration training centre in the country. Once the training centre had been well equipped, 2 training programmes for refrigeration technicians were conducted, through which 42 technicians were trained.
6. Implementation of the first phase of the incentive scheme for end-users has also started. In 2004, a workshop was conducted with the participation of several end-users. The workshop's main conclusions included: encouraging the use of non-CFC refrigerant as drop-in replacements, rather than equipment retrofits, to ensure conversion of a larger number of end-users; providing a 50 per cent subsidy under the incentive scheme; and deciding to target the larger commercial refrigeration systems in critical areas such as food processing and health first. Three R-502-based cold freezer rooms and 7 CFC-12 based cold rooms were retrofitted with R-408 and R-406 refrigerants, respectively.
7. The Ozone Unit has conducted awareness workshops and has developed a poster and leaflets to promote the activities of the TPMP.

8. In 2004, the total CFC consumption reported by the Government of Lesotho under Article 7 of the Montreal Protocol was 1.2 ODP tonnes, which is 0.2 ODP tonnes below the maximum allowable level of consumption under the TPMP. The CFC baseline for Lesotho is 1.2 ODP tonnes.

Plan of action of the 2nd work programme

9. The Government of Lesotho is requesting US \$35,000 plus agency support costs for the Government of Germany for the implementation of the 2nd work programme of the TPMP. Through this work programme, the Government is committed to phase out an additional 0.4 ODP tonnes of CFCs.

10. The activities proposed for the 2nd work programme are the following:

- (a) Implementation of the 2nd phase of the incentive scheme for end-users. The Ozone Unit and the refrigeration association have identified approximately 50 cooling units with a refrigerant installed capacity of 10 to 30 kg that can benefit from the incentive scheme;
- (b) Further training programmes for refrigeration servicing technicians, including MACs. So far no training courses have been conducted for servicing MAC units, therefore one training course for technicians from the MAC sector will be conducted;
- (c) Awareness activities for end-users and the general public; and
- (d) Monitoring and management of the activities included in the TPMP, including data reporting, as applicable.

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

Issues related to compliance by Lesotho

11. At their 16th Meeting, the Parties to the Montreal Protocol noted that Lesotho (among other countries) had still not reported data for 2003 and, therefore, Lesotho (among other countries) was in non-compliance with its data reporting obligations under the Montreal Protocol. Furthermore, the Parties urged Lesotho (among other countries) to work closely with the implementing agencies to report the required data to the Ozone Secretariat as a matter of urgency, and to request the Implementation Committee to review the situation of Lesotho (among other countries) at its next meeting (Decision XVI/17 on data and information provided by the Parties in accordance with Article 7 of the Montreal Protocol).

12. In this regard, the Secretariat suggested that the Government of Lesotho send an official communication to the Ozone Secretariat (if this has not already been done) addressing the issues

raised by the Parties to the Montreal Protocol, and reporting the relevant ODS consumption according to the data collected during the preparation of the RMP update. Subsequently, the Fund Secretariat received a copy of the letter sent on 29 January 2005 by the Government of Lesotho to the Ozone Secretariat regarding its 2003 and 2004 ODS consumption.

Incentive programme

13. It is reported in the proposal that “due to restricted funds available under the project and to ensure maximum benefits to all, drop-ins rather than retrofits are to be encouraged”. In this regard, the Secretariat requested the Government of Germany to further explain the implementation modalities proposed for this incentive programme, since it might be used by a large number of Article 5 countries, in particular LVC countries, to phase-out CFC consumption.

14. Subsequently, the Government of Germany provided the following information:

- (a) The Refrigeration and Air conditioning Association, which has 34 service companies (i.e., the majority of the formal service companies), will be the supplier of all refrigerant drop-in alternatives in the country;
- (b) Based on the discussions with owners of equipment held during the workshop, it was agreed to replace CFC refrigerants with non-CFC drop-ins rather than performing retrofits because of the cost differential.
- (c) A set of criteria was also established for the equipment to be targeted first, i.e., cold rooms and chillers, which have a refrigerant charge of 10 kg or more of CFC-12 or R502, are 10 to 20 years old and in good operating condition. The alternative refrigerants are R406 (a mixture of HCFC-22, HCFC-142b and isobutane) for CFC-12, and R-408 (a mixture of HFC-125, HFC-134a and HCFC-22) for R-502;
- (d) The estimated total cost of replacing CFC refrigerants with drop-in refrigerants in a system with a refrigerant charge of 25 kg is US \$800, including the cost of labour, parts and the refrigerant (a 50 per cent subsidy will be provided from the TPM to the owners of the equipment). The cost of retrofitting the same refrigeration unit with HFC-134a or R-404a refrigerants would be between US \$2,000 and US \$2,500;
- (e) Any end-user that wishes to benefit from the incentive scheme should submit a formal request to the Ozone Unit; and
- (f) In early 2004, the prices of refrigerants per kg were: US \$14.00 for CFC-12, US \$13.00 for HFC 134a, US \$5.00 for R408, and US \$23 for R406 (a mixture of HFC-125, HFC-43a and HFC-134a). Very small amounts of CFC-12 have been imported recently, mainly for own use (not sold on the market).

Methyl bromide (MB) and halon consumption

15. Although MB is not included in the TPMP proposal, the progress report submitted by the Government of Germany in Lesotho, indicated that a national expert from the agricultural sector conducted a national survey and found out that a very small amount of MB (0.18 ODP tonnes) is used by the flour mill owners. However, MB is not consumed annually since it is not available in the country (i.e., must be imported from South Africa).

16. With regard to MB and halon consumption, the Secretariat requested additional information from the Government of Germany regarding the phase-out of these chemicals in Lesotho for the following reasons:

- (a) Lesotho appears to be in non-compliance with the control measures for MB under the Montreal Protocol. In 2002, Lesotho reported MB consumption of 0.2 ODP tonnes while the MB baseline is 0.1 ODP tonnes; and
- (b) At their 16th Meeting, the Parties to the Montreal Protocol noted that for 2002, Lesotho was in non-compliance with its obligations under Article 2B of the Montreal Protocol (2002 halon consumption was above the halon baseline). The Parties also noted with appreciation Lesotho's submission of its plan of action to ensure a prompt return to compliance with the control measures for halons. Under the plan, without prejudice to the operation of the financial mechanism of the Montreal Protocol, Lesotho specifically committed itself *inter alia* to a stage-wise reduction of halon consumption from 1.8 ODP tonnes in 2002, to 0.8 ODP tonnes in 2004, to 0.2 ODP tonnes in 2005, to 0.1 ODP tonnes in each 2006 and 2007, and to zero ODP tonnes in 2008, to introduce a quota system for the import of halons, and to introduce a ban on the import of halon-based equipment and systems in 2005 (Decision XVI/25). Lesotho is part of the regional halon banking project approved at the 35th Meeting of the Executive Committee, currently being implemented by the Government of Germany.

17. Regarding MB consumption, the Government of Germany indicated that, in 2003 and 2004, no MB was imported into the country (as reported to the Ozone Secretariat). The flour mills that were identified as users of MB in Lesotho have partially switched to phosphine and are testing other alternatives to MB. Through the TPMP, work is ongoing to inform the flour mills of other potential alternatives.

18. On the issue of halon consumption, the Government of Germany pointed out that one ODP tonne of halons had been imported into the country in 2003. However, in 2004 the Government of Lesotho reported zero consumption of halons under Article 7 of the Montreal Protocol. Under the regional halon banking project, the training programme on alternatives to halons had already been conducted, but halon recycling will commence only when the regional halon bank being established in South Africa is finalized.

RECOMMENDATION

19. In light of Decision XVI/17 and the subsequent 2003 and 2004 ODS consumption reports submitted by the Government of Lesotho to the Ozone Secretariat, the Executive Committee may wish to consider approval of the 2nd work programme of the Lesotho TPMP at a total cost of US \$35,000, plus agency support costs of US \$4,550 for the Government of Germany, on the understanding that the approval was without prejudice to the Montreal Protocol's mechanism dealing with non compliance and that the Government of Germany would provide appropriate monitoring throughout project implementation.
