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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Thirty-eighth Meeting
Rome, 20-22 November 2002

COUNTRY PROGRAMME: ANGOLA

This document consists of:

- Country Programme Evaluation Sheet (prepared by the Fund Secretariat)
- Comments and Recommendations of the Fund Secretariat
- Transmittal Letter from the Government of Angola
- Country Programme Cover Sheet
- Country Programme (Executive Summary)

ANGOLA COUNTRY PROGRAMME EVALUATION SHEET

Status of ratification of the Vienna Convention and the Montreal Protocol

	Signature	Ratification	Entry into
Vienna Convention (1985)		17-May-00	15-Aug-00
Montreal Protocol (1987)		17-May-00	15-Aug-00
London Amendment (1990)			
Copenhagen Amendment			
Montreal Amendment (1997)			
Beijing Amendment (1999)			

Production of controlled substances: No controlled substances produced

Consumption of controlled 128.7 metric tonnes
120.7 weighted tonnes (ODP)

(tonnes)	CFC-11	CFC-12	CFC-113	CFC-114	CFC-115	TOTAL	Halon121	Halon130	TOTAL	CTC	MCF	TOTAL	Me-Br
ODS	3.0	105.7			20.0	128.7							
ODP	3.0	105.7			12.0	120.7							

10 tonnes of CFC used in the informal sector for aerosol and foam products

Distribution of ODP by **CFC** 100.0% **Halon** **CTC and MCF** **MB**

Distribution of ODP by sector:	Aerosol	Foam	Halon	Refrigeration	Solvent	Other	MB
Consumption (ODP tonnes):	5.0	5.0	0.0	110.7	0.0	0.0	0.0
Percent of total:	4.1%	4.1%		91.7%			

MONTREAL PROTOCOL	**(ODP tonnes)CFCs**	**Halons**	**Methyl bromide**
Baseline consumption	120.7		
Allowable level of consumption in 2005	60.3		

Source: Country Programme (2002)

Country Programme

Duration of country programme: 8 years (2003-2010)

ODS phase out target: Complete phase out of CFCs by end-2009, complete phase out of halons and methyl bromide by 2008

Phase out priority area: Refrigeration servicing, halon and fumigant sectors

Cost of activities in country $1,580,400

Strategy:

The Government is committed to the phasing out the consumption of ODS in a controlled and cost-effective manner that is consistent with its economic development plans, to meet the phase-out schedule required by the Montreal Protocol. A regulatory system, including a licensing system, will be put in place for the control and ban of ODSs. The development and implementation of monitoring and control measures, training activities, refrigerant recovery and recycling programme and public awareness campaigns are the main components of the proposed action plan. The technical monitoring capacity will be improved to ensure the effective implementation of the terminal ODS phase out proposed by the Government.

COMMENTS AND RECOMMENDATIONS OF THE FUND SECRETARIAT

SECRETARIAT'S COMMENTS

1. A national survey on the consumption of ODS was conducted by GTZ during 2002, and the data collected was used for the development of the Angola country programme and for the preparation of the Terminal Phase-out Management Plan. Based on this survey, in 2001 about 120.7 ODP tonnes of CFCs were used in the country to service refrigeration equipment (mainly domestic refrigerators) and by small enterprises in the aerosol, foam and solvent sectors (10 ODP tonnes).

2. The civil war of the last 25 years led to a significant decline of Angola's industrial and agricultural production. Accordingly, consumption of ODSs in industrial and servicing sectors was also relatively low. However, with the cessation of hostilities, the expected growth in the national economy will have a direct impact on the ODS consumption levels in the country.

3. The survey has indicated that the current consumption of methyl bromide (MB) is nil. This is due to the collapse of Angola's intensive agricultural production as a result of the civil war. However, prior to the war MB was used in the country for soil-sterilisation. It is therefore very likely, that with the growth of agricultural production (resulting from the current stability) a significant increase in MB consumption could be expected.

4. The Government of Angola is proposing the establishment of legislation and a regulatory system to control imports of ODSs. The technical monitoring capacity will be improved to ensure the effective monitoring of the legal and technical provisions provided for under the Montreal Protocol. The Government has also empowered the National Directorate for Environment, of the Ministry of Fisheries and Environment, to address issues related to the implementation of the Montreal Protocol. The Government has indicated that it is committed to meeting its obligations as a signatory to the Montreal Protocol, with funding assistance through the Multilateral Fund to phase out the consumption of ODSs according to the Montreal Protocol phase-out schedule.

5. The country programme includes a project for the establishment of an Ozone Unit within the National Directorate for Environment, of the Ministry of Fisheries and Environment (institutional strengthening). The Government of Angola is requesting a total of US $213,300 for the implementation of this project. The Fund Secretariat's comments and recommendations on this request are presented under the Bilateral Co-operation document (UNEP/OzL.Pro/ExCom/38/16).

6. The country programme also includes a Terminal Phase-out Management Plan at a total cost of US $1,206,700. The Government of Angola will submit the request for funding of the phase out plan to the Executive Committee in 2003.

7. In the letter of transmittal of the country programme, the Minister of Fisheries and Environment stated that since no reliable data could be found for the period 1995-1997, the 2001 CFC consumption was considered as the freeze level and starting point for the total phase

out. According to the latest information available at the Fund Secretariat, the Ozone Secretariat has not received ODS consumption data for Angola. The Secretariat advised the Government of Germany to request the Ministry of Fisheries and Environment of Angola to submit the ODS data collected during the preparation of the country programme, to the Ozone Secretariat in order to seek advice on whether or not the 2001 consumption could serve as baseline.

8. The Fund Secretariat pointed out that the reported amount of CFC-12 for servicing refrigeration equipment appears to have been over estimated, on the basis that the numbers of domestic refrigerators and vehicles equipped with a MAC system in the country are low (240,000 units and 4,500 vehicles), and the average annual quantity of CFC used to service commercial refrigeration units is high (at 13.3 kg/unit).

9. The Government of Germany informed the Secretariat that it was very difficult to collect and/or calculate exact data for Angola after many years of civil war. Therefore the approach followed was to review various sources of information (i.e., country-wide survey, customs data, data from the bureau of statistics, international statistics sources including the World Bank) and compare the data thereof to obtain realistic figures. During a national workshop held in August 2002 with the representatives from the Government, national consultants and consultants from GTZ-Proklima, the consumption data gathered during the survey was further analysed. Specifically, the estimated consumption of 72 tonnes for the 240,000 domestic refrigerators in operation was determined taking into account the condition of the equipment (being old and therefore needing repair including recharging once a year or at least once in two years), and the large number of semi-skilled refrigeration technicians with low technical background. The same applies to the commercial refrigeration and MAC units.

SECRETARIAT'S RECOMMENDATIONS

10. The Fund Secretariat recommends as follows:

(a) Approval of the Angola Country Programme, noting that approval of the country programme does not denote approval of the projects identified therein or their funding levels;

(b) The Government of Angola be requested to present information annually to the Executive Committee on progress being made in the implementation of the country programme, in accordance with the decision of the Executive Committee on implementation of country programmes (UNEP/OzL.Pro/ExCom/10/40, para 135). Using the approved format, the initial report, covering the period 1 December 2002 to 31 December 2003, should be submitted to the Fund Secretariat no later than 1 May 2004.

República de Angola
Ministério das Pescas e Ambiente
Direcção Nacional do Ambiente

The Chief Officer
Secretariat of the Multilateral Fund
for the Implementation of the Montreal Protocol

MONTREAL / CANADA

Luanda, 28th of August 2002

Excellency

The Minister of Fisheries and Environment of the Republic of Angola hereby likes to express its most respectful regards to his Excellency, the Chief Officer of the Multilateral Fund to the Montreal Protocol.

We have the honour to herewith submit to you the Country Programme for the Phase out of the Ozone depleting Substances in our country.
Together with the Country Programme we submit a proposal for the Refrigerant Management Plan / Terminal Phase-out Management Plan as well as for an Institutional Strengthening project, which both have been developed along with the present Country Programme.

The Ministry of Fisheries and Environment would like to take this opportunity to emphasis the appreciation of the Angolan Government for the financial assistance extended to it through the Multilateral Fund, which enabled the preparation of the present Country Programme and the Refrigerant / Terminal Phase-out Management Plan respectively.

The Republic of Angola became a Party to the Protocol on 17th of May 2000.
Angola is classified as developing country operating under paragraph 1 of Article 5 of the Montreal Protocol.

We are pleased to ensure that the Government of the Republic of Angola is highly committed to the implementation of its strategy for the phase out of ozone depleting substances as stipulated in this Programme.

The present Country Programme has been developed on the basis of data collected through a national survey on the ODS consumption in the various sector and its sub-sectors respectively.
However, due to the war situation of the past, almost no reliable data could be found for the period 1995-1997. Accordingly we consider 2001 consumption as freeze level and starting point for the total phase-out.

The Programme contains a description of Angola's current and forecast consumption of ODS, its industrial structure with regard to the controlled substances, as well as an explanation of the Governments strategy to reach the phase-out.

We would like to mention, that actions other than those specified in the RMP / TPMP of this Country Programme may be developed. (Halon banking, Methyl Bromide substitution)
Proposals thereof will be submitted to the Secretariat of the Multilateral Fund at a later stage.

Accordingly we hereby would like to kindly apply for assistance with regard to the following projects, as specified in the present Country Programme and RMP / TPMP:

1. Project for the Creation and the Institutional Strengthening of Angola's National Ozone Unit

2. Refrigerant Management Plan / Terminal Phase-out Management Plan for the effective phase out of ODS, including the following:
   - Implementation of a legislation and regulation system
   - Training of Customs
   - Implementation of a Incentive Programme
   - Train of Trainers and Technicians
   - Implementation of a National Recovery & Recycling Project
   - Implementation of a Monitoring Program for the RMP
   - Launching of a Public Awareness Program
   - Identification of Chillers and offering of technical assistance for the conversion to non-ODS
   - Offering of technical assistance to foam- and aerosol manufacturers of the formal an informal sectors for the conversion to non-ODS

For each of the activities identified are specified the costs and means of funding, including national contribution where applicable.

No further funding will be requested to meet the phase-out target for the above sectors.

Accordingly your favourable approval of the above projects will be highly appreciated.

Excellency,
Please accept the assurance of our highest consideration

Yours sincerely

Maria de Fátima Jardim
Minister of Fisheries and Environment
Of the Republic of Angola

COUNTRY PROGRAMME COVER SHEET

COUNTRY **REPUBLIC OF ANGOLA**

DATE RECEIVED _____

LEAD NATIONAL AGENCY **NATIONAL DIRECTORATE FOR ENVIRONMENT / MINISTRY OF FISHERIES AND ENVIRONMENT**

LEAD IMPLEMENTING AGENCY **DEUTSCHE GESELLSCHAFT FUER TECHNISCHE ZUSAMMENARBEIT, GTZ**

PERIOD COVERED BY COUNTRY PROGRAMME **2003 – 2010**

1. PHASE OUT SCHEDULE

Substance	ODP Value	2001 Consumption in ODP Tonnes	Estim. total cons. until phase-out (ODP Tonnes)	Planned year of Phase-out
CFC-11	1.0	3.0	22.7	2009
CFC-12	1.0	105.7	496.3	2009
CFC-115 (as R502)	0.6	12.0	59.8	2008
Halon 1211 / 1301	3.0 / 10	0 *	12.5	2008
Methyl Bromide	0.6	0 *	6.4	2008
Total		**120.7**	**597.7**	**2009**

[*The 2001 consumption for Halon 1211 & 1301 and MeBr had been zero, however considerable installed capacities had been identified]

2. ACTION PLAN OF ANGOLA

In order to meet with the obligations resulting from the ratification of the Vienna Convention as well as the Montreal Protocol, the Government of the Republic of Angola - through its Ministry of Fisheries and Environment - has empowered the *National Directorate of Environment* to develop a national strategy for the phase out of Ozone Depleting Substances in that country with assistance from Germany.

Accordingly the following Action Plan has been developed:

- Constitute a National Ozone Unit of Angola within the National Directorate of Environment / Ministry of Fisheries and Environment, as *Focal Point* for all activities related to the Montreal Protocol.

- Develop and implement a legislation- and regulation-system with the following purpose:
    - Control and/or ban imports of ODS using equipment.
    - Control and/or prohibit the erection of new enterprises, producing or assembling equipment, foams, or aerosols using ODS.
    - Control and/or prohibit the expansion of ODS based technologies for existing manufacturing enterprises.
    - Establish a licensing system for ODS imports based on import quotas for ODS.
    - Introduce import taxes on ODS in order to reduce consumption

    Adapt the international customs code HS
- Train Customs officers on the legislation as well as in recognising ODS and/or ODS based equipment.
- Train trainers and refrigeration technicians in good refrigeration practises.
- Identify key ODS end users in the R&AC sector and develop a suitable incentive programme to stimulate the conversion to non ODS refrigerants. (Incentive Programme)
- Implement a National Recovery and Recycling project. (R&R Project)
- Identify chillers for emission reduction projects and/or Retrofit projects.
- Identify micro companies in the foam, aerosol and solvent sectors within the informal sector and provide engineering support in order to substitute ODS (Engineering assistance).
- Develop a monitoring programme in order to follow up the implementation of the Terminal Phase- out Management Plan.
- Embark on a public awareness programme.
- Identify key Halon-using companies and encourage them into establishing of a Halon-banking system.
- Identify MB-using enterprises in Agriculture and/or other sectors (grain- & fish-meal fumigation) seek funding, and monitor projects to introduce MB-substitutes.

3. PROJECTS

A summary of the projects identified so far and their respective costs are given below:

Name of Project		Period	Estimated Cost to MLF (US$)
Institutional Strengthening (I.S.)		2003 – 2005	213,300
Implementing Agency support costs for I.S. (13%)		2003 – 2005	27,700
Terminal Phase-Out Management Plan (TPMP) [Project Proposal to be submitted for approval at the 39th ExCom]	i) Implement a legislation- and regulation-system	2003 – 2004	70,000
	ii) Train Customs officers in recognising ODS and/or ODS based equipment	2003 – 2004	95,000
	iii) Train trainers and technicians in good refrigeration practises.	2003 – 2005	220,000
	iv) Incentive programme for end users of the refrigeration sector for conversion to non ODS	2003 – 2006	130,000
	v) Implement a National Recovery and Recycling project	2003 – 2006	326,700
	vi) Identify chillers for emission reduction or Retrofit	2003 – 2006	75,000
	vii) Engineering assistance for micro companies of the informal sector	2003 – 2008	120,000
	viii.) Monitoring of TPMP activities (included in I.S.)	2003 – 2010	0
	ix.) Public awareness program	2003 – 2008	170,000
	x.) Implement. Agency support costs for the TPMP (11%)	2003 – 2009	132,700
National or Regional Halon Bank (Project to be submitted later)			
Phase-Out projects for Methyl Bromide (Project to be submitted later)			
TOTAL (including Agency Support Costs)			**1,580,400**

4. COSTS (US$)

ODP to be phased out	120.7 ODP Tonnes
Cost of Institutional Strengthening (excluding Impl. Agency Support)	213,300
Cost of Institutional Strengthening (including 13% Agency Support)	241,000
Cost of TPMP (excluding Impl. Agency Support)	1,206,700
Cost of TPMP (including 11% Impl. Agency Support)	1,339,400
Cost effectiveness (Total Phase-out costs excl. Agency Supp.)	11.76/kg

EXECUTIVE SUMMARY

1. The Republic of Angola ratified the Vienna Convention and the Montreal Protocol on 18th June 1998 and became a party to the Protocol on 17th May 2000. Angola intends to further ratify the Amendments of the Protocol.

2. In order to implement the Montreal Protocol, the Republic of Angola, through the *National Directorate of Environment* in the *Ministry of Fisheries and Environment*, has nominated the **National Ozone Unit of Angola** and has empowered it to develop a Country Programme (C.P.) aiming on the phase out of the Ozone Depleting Substances in that country.

Current Situation

3. The Republic of Angola does not produce any ODS; consequently all its demands are met through imports. The total consumption of ODS for 2001 amounted to 120.7 ODP Tonnes. Accordingly Angola is part of the group of low volume consuming countries.

4. All of the identified ODS consumption for 2001 has been of Annex A substances (CFC-11, CFC-12, CFC-115). Based on a population of 13 million (2000 est.) the per capita consumption in Angola for 2001 has been about 0.01 kg.

5. The main consumption of ODS is in the Refrigeration and Air Conditioning sector (118.8 ODP tonnes incl. HCFC-22) or 92% of total ODS consumption. Apart from the R&AC sectors there seem to be manufacturing companies in the foam, aerosol and solvent sectors in Angola's huge informal sector. The annual ODS consumption for these companies has been estimated to about 10 tonnes of (mainly) CFC-12.

6. The Halons1211 and 1301 are in use particularly in the Oil and Gas producing industries, 2001 consumption is estimated to zero, however 33,332 kg have been identified as installed capacities.

7. Methyl Bromide has been used in Angola traditionally in the Agriculture (soil-sterilisation, grain-storage) as well as in the fishing sector (fishmeal storage).

8. However the total 2001 consumption has been estimated to be zero. The total existing stocks are estimated to 365 kg.

Implementing the Phase-Out

9. With assistance from GTZ/PROKLIMA, and funding assistance through the Multilateral Fund, the National Ozone Unit has carried out a national survey on ODS consumption in Angola during the period April – July 2002 which served as a data-basis for the formulation of the Country Programme.

10. The C.P. reflects the commitment of the Government of Angola towards the phase out of ODS consumption in that country in a controlled and cost effective manner, while ensuring a smooth shift to ozone friendly substances and minimising undue economic hardship for the industrial, commercial and domestic consumers.

11. The major components of the Government's strategy for the phase out of ODS therefore are the establishment of a legislative & regulatory framework with regard to ODS, the development of technical programmes by sector, the elaboration of incremental cost estimations for the use of non-ODS technologies and the creation of an education and awareness programme.

12. Accordingly the following Action Plan has been developed:

- To establish an effective National Ozone Unit for the management and monitoring of all phase-out activities as well as for data collection, compiling and reporting to the national and international institutions.
- To introduce a public awareness program
- To develop and implement a legislation and regulation-system in order to regulate imports of ODS and/or ODS-based equipment, as well as to control ODS consumption of national (local) industry.
- To train Customs Department in monitoring and controlling imports of ODS and/or ODS based equipment.
- To train trainers and refrigeration technicians in good refrigeration practises.
- To identify, encourage and support enterprises from the refrigeration, foam, aerosol sectors respectively in converting towards the use of ozone friendly substances. (Incentive programmes)
- To implement a National Recovery and Recycling project.
- To identify chillers for emission reduction and/or for retrofit projects.
- To identify micro companies in the informal sector and provide them with engineering support in order to substitute ODS (Engineering assistance)
- To develop a monitoring program in order to follow up the TPMP implementation.
- Identify key Halon-using companies and encourage them in the establishment of a Halon-banking system.
- Identify MB using enterprises in Agriculture and/or other sectors (fumigation of stored grain & fishmeal); seek funding-, and monitor projects to introduce MB-substitutes.

13. In order to provide adequate technical equipment, as well as to enable a high degree of professionalism and efficiency in the implementation of the phase-out activities, a proposal for an **Institutional-Strengthening project** for Angola's National Ozone Unit as part of the Action Plan has been developed along with the present Country Programme in order to be submitted for approval at the 39th ExCom Meeting.

14. As the refrigeration sector being the major ODS consumer in Angola, and in order to accelerate the transformation process in this sector, a Proposal for a **Terminal Phase-out Management Plan for CFCs** has been developed along with this Country Programme, for approval at the 39th ExCom Meeting.

[All projects related to Halon Banking and/or Methyl Bromide substitution will be prepared and submitted at a later stage].

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