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EXECUTIVE COMMITTEE OF  
THE MULTILATERAL FUND FOR THE  
IMPLEMENTATION OF THE MONTREAL PROTOCOL  
Thirty-second Meeting  
Ouagadougou, 6-8 December 2000

**COUNTRY PROGRAMME: LIBYA**

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 Libya
- Country Programme Cover Sheet
- Country Programme (Executive Summary)

## LIBYA COUNTRY PROGRAMME EVALUATION SHEET

National Ozone Office, Executive Office of the National Committee for Climate Change

*Status of ratification of the Vienna Convention and the Montreal Protocol*

	<b>Signature</b>	<b>Ratification</b>	<b>Entry into force</b>
Vienna Convention (1985)		11-Jul-90	09-Oct-90
Montreal Protocol (1987)		11-Jul-90	09-Oct-90
London Amendment (1990)			
Copenhagen Amendment (1992)			

**Production of controlled substances:** No controlled substances produced

**Consumption of controlled substances (1999)** 904.5 metric tonnes  
1,052.4 weighted tonnes (ODP)

(tonnes)	CFC-11	CFC-12	CFC-113	CFC-114	CFC-115	TOTAL	Halon121	Halon130	TOTAL	CTC	MCF	TOTALMe-Br
ODS	770.0	110.9		10.4	7.7	899.0	0.5	5.0	5.5			175.0
ODP	770.0	110.9		10.4	4.6	895.9	1.5	50.0	51.5			105.0

**Distribution of ODP by substance:** CFC 85.1% Halon 4.9% CTC and MCF MeBr 10.0%

<b>Distribution of ODP by sector:</b>	<b>Aerosol</b>	<b>Foam</b>	<b>Halon</b>	<b>Refrigeration</b>	<b>Solvent</b>	<b>Other</b>	<b>MeBr</b>
Consumption (ODP tonnes):	0.0	758.5	51.5	137.4	0.0	0.0	105.0
Percent of total:		72.1%	4.9%	13.1%			10.0%

<b>MONTREAL PROTOCOL</b>	<b>(ODP tonnes)CFCs</b>	<b>Halons</b>	<b>Methyl bromide</b>
Baseline consumption	716.7	633.1	
Allowable level of consumption in 2005	358.4	316.6	

Source: UNEP/OzL.Pro.11/6 (5 October 1999)

### Country Programme

**Duration of country programme:** 10 years (2001-2010)

**ODS phase out target:** 80% reduction by 2005; complete phase out by 2010

**Phase out priority area:** Foam, refrigeration and fumigant sectors

**Cost of activities in country programme:** \$1,109,000

### Strategy:

The Government of Libya is committed to phasing out consumption of ODS in a controlled and cost effective manner. The main thrust is in the conversion of foam and refrigerator manufacturing plants in the public sector to non-CFC technologies with funding from the Multilateral Fund. For the refrigeration servicing sector, the strategy is based on training, containment and recovery and recycling operations. Development and implementation of control measures, public awareness campaigns and training activities are the main components of the action plan. Legislation will be put in place and enactment texts will be defined, where necessary. Technical monitoring capacity will be improved to ensure effective monitoring of the legal and technical provisions provided for under the Montreal Protocol. An Executive Office of the National Committee for Climate Change will be established as a focal point for all activities related to the Montreal Protocol.

## COMMENTS AND RECOMMENDATIONS OF THE FUND SECRETARIAT

### COMMENTS

1. The total ODS consumption in the country in 1999 was estimated at 1,052.3 ODP tonnes with the following sectoral distribution: 895.9 tonnes of CFCs used in the manufacturing of foam products and domestic and small commercial refrigeration equipment, and servicing refrigeration equipment; 51.5 ODP tonnes of halons and 105 ODP tonnes of methyl bromide used as a soil fumigant.
2. The annual calculated level of Annex A Substances' consumption for the period 1995-1997, the baseline for determination of Libya's compliance with the Montreal Protocol, is 701.8 tonnes. Therefore, the Government of Libya is currently not in compliance with the Montreal Protocol. The 1995-1998 baseline for MB is 39 ODP tonnes.
3. During the survey for the preparation of the Libya country programme, there was found to be a high consumption of CFC-11 (770 tonnes equivalent to 73% of the total ODS consumption in the country) in the manufacture of flexible and rigid foam products by 20 enterprises (the country programme includes a table with CFC consumption figures for each of the 20 manufacturing plants).
4. There are also three domestic refrigerator and one freezer manufacturing plants using CFCs belonging to the public sector company, Electrical Household Appliances Company, and five private companies manufacturing cold water tanks and/or water heaters. The refrigeration servicing sector consists of about 3,000 technicians, several of them trained at vocational training schools. However, a certification programme for refrigeration and air conditioning technicians has not been established.
5. Halon systems (both halon-1211 portable systems and halon-1301 fixed systems) are used at the Libyan Iron and Steel Company and at oil refineries and petrochemical plants. At present, no phaseout plans have been developed for replacing these systems. However, the Government of Libya is considering the feasibility of establishing a national halon bank.
6. Libya has not yet ratified the London, Copenhagen and Montreal amendments to the Montreal Protocol. UNIDO has informed the Secretariat that the London Amendment has been approved by the Council of Ministers; however, this approval has to be endorsed by the Parliament. Once it is endorsed by the Parliament, the Ministry of Foreign Affairs will deposit the instrument of ratification in the United Nations (expected by March 2001). The National Committee for Climate Change, which will be in charge of the operation of the Ozone Unit, has submitted relevant documentation for ratification of the Copenhagen Amendment to the Council of Ministers for their approval (expected by June 2001).
7. The country programme includes a project for the establishment of a National Ozone Office within the Executive Office of the National Committee for Climate Change (institutional strengthening). The Government of Libya is requesting a total of US \$201,500 for the implementation of this project. The Fund Secretariat's comments and recommendations on this

request are presented under UNIDO's work programme amendments (UNEP/OzL.Pro/ExCom/32/26).

8. The country programme also includes a refrigerant management plan (RMP) project proposal. The Government of Libya is requesting a total of US \$1,407,500 for the implementation of this project. The Fund Secretariat considers the request for the implementation of the RMP project in Libya to be premature, for the following reasons:

- (a) The Government has not yet ratified any of the amendments of the Montreal Protocol (actions to be taken and possible dates for ratification of the amendments have not been established);
- (b) The Ozone Unit has not been established;
- (c) Manufacture of refrigeration equipment in the country is still based on CFCs. Full conversion to non-CFC technologies, as proposed in the country programme, will be achieved in 2001-2004;
- (d) The largest CFC user in the country is the foam sector. Conversion of this sector (proposed between 2001 and 2004), will have the greatest impact on CFC reductions in the country;
- (e) There is no policy and regulatory instruments in place for control and management of ODSs in the country (necessary for the implementation of the recovery and recycling project component of the RMP);
- (f) Total CFCs used in the refrigeration servicing sector represents less than 15% of the total ODS consumed in the country in 1999. Thus implementation of the RMP will not have a great impact on the total CFC phase out at this time.

9. The Government of Libya has agreed to defer consideration of the RMP project to a future meeting of the Executive Committee.

## **RECOMMENDATIONS**

The Fund Secretariat recommends as follows:

1. To approve the Libya Country Programme. Approval of the Country Programme does not denote approval of the projects identified therein or their funding levels.
2. To request the Government of Libya to present annually information 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 2000 to 31 December 2001, should be submitted to the Fund Secretariat no later than 1 May 2002.

3. The Executive Committee may also wish to urge the Government of Libya to ratify the London, Copenhagen and Montreal amendments to the Montreal Protocol in the immediate future.



الأسسة الوطنية للنفط  
NATIONAL OIL CORPORATION

10 / 10 / 1992

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الى الاخ/ الدكتور عمر العريبي  
المدير التنفيذي  
أمانة الصندوق المتعدد الأطراف  
لتنفيذ بروتوكول مونتريال

Dear Sir,

I have the honour to submit herewith the country programme of the Great Socialist People's Libyan Arab Jamahiriya for the consideration and approval of the Multilateral Fund for the implementation of the Montreal Protocol.

The Socialist People's Libyan Arab Jamahiriya adhered to the Protocol on 6<sup>th</sup> March 1992 and qualifies as an Article 5 Country. On behalf of the Socialist People's Libyan Arab Jamahiriya, the Country programme was prepared with the assistance of UNIDO.

I can also assure you that it is Libya's intention to monitor compliance with the protocol. If necessary, further and different actions from those specified in the Country programme will be updated and submitted to the Executive Committee of the Multilateral Fund.

بعد التحية:

يسعدني أن أقدم إليكم البرنامج الوطني للجماهيرية العربية الليبية الشعبية الاشتراكية العظمى للنظر في اعتماده من قبل الصندوق المتعدد الأطراف المعني بتنفيذ بروتوكول مونتريال.

التزمت الجماهيرية بروتوكول مونتريال في 1992/3/6 إفرنجي و تعنسير من الدول النامية المنصوص عليها في المادة الخامسة من البروتوكول، وقد تم إعداد هذا البرنامج الوطني نيابة عن الجماهيرية بدعم من منظمة الأمم المتحدة للتنمية الصناعية .

أيضا أود أن أؤكد أن لدى الجماهيرية النية في مراقبة الامتثال لنصوص البروتوكول ، وستعمل الجماهيرية عند الضرورة علي اتخاذ إجراءات أخرى ، بالإضافة إلى الإجراءات المبينة بالبرنامج الوطني ، و تعديله إحالته إلى اللجنة التنفيذية للصندوق المتعدد الأطراف .



المؤسسة الوطنية للنفط  
NATIONAL OIL CORPORATION

I hope that the Executive Committee will also approve the request for institutional strengthening of the Executive Office of the National Committee for Climate Change by establishing a separate unit for the country programme and the provisions of the Montreal Protocol.

نأمل أن تعتمد اللجنة التنفيذية للصندوق المتعدد الأطراف الطلب الخاص بدعم زيادة القدرات بالمكتب التنفيذي للجنة الوطنية لتغير المناخ . وذلك بتأسيس وحدة إدارية خاصة بالبرنامج الوطني و متابعة تنفيذ بروتوكول مونتريال .

AHMED ABDULKARIM AHMED  
Secretary of the People's Committee  
Chairman of National Committee  
for Climate Change



أحمد عبد الكريم أحمد  
أمن اللجنة الشعبية  
رئيس اللجنة الوطنية لتغير المناخ

## COUNTRY PROGRAMME COVER SHEET

**COUNTRY**

**LIBYAN ARAB JAMAHIRIYA**

**LEAD NATIONAL AGENCY**

**National Committee for Climate Change**

**PERIOD COVERED BY COUNTRY PROGRAMME**

**2001 – 2010**

### 1. PHASE OUT SCHEDULE

<b>Substance</b>	<b>1999 Consumption in ODP Tonnes</b>	<b>Planned Total Cons. until phase- out (tonnes x ODP)</b>	<b>Planned year of Phase-out</b>
CFC-11	769.95	4,277.28	2010
CFC-12	110.90	981.20	2010
CFC-114	10.37	0.98	2007
CFC-115 (as R-502)	4.60	42.31	2010
Halon 1211	1.50	10.50	2007
Halon 1301	50.00	459.89	2010
Methyl Bromide	122.50		2010

### 2. ACTION PLAN OF LIBYA

The General Peoples' Committee has established the National Committee for Climate Change (NCCC), (reporting to the Secretary of the General Peoples' Committee), and entrusted it with duties to develop a strategy and action plan for phasing out Ozone Depleting Substances. In order to implement these duties the NCCC has developed an Action Plan as follows:

- Establish the Executive Office of the NCCC as a focal point for all activities related to the Montreal Protocol.
- Embark on a public awareness program with funding from the Multilateral Fund
- Develop and implement control measures such as:
  - Prohibit imports of ODS using equipment
  - Prohibit new enterprises producing and/or assembling equipment, foams, or aerosols using ODS
  - Prohibit expansion of existing manufacturing facilities with ODS based technologies
  - Establish a cap on total ODP tonnage imported through existing licensing system
  - Encourage conservation of refrigerant
- Train Customs Department, National Information Centre and NOU in monitoring and collection of data to meet the reporting requirements of the Protocol
- Seek funding and monitor projects to convert refrigeration and foam manufacturing facilities
- Identify other investment projects not covered in this Country Programme and submit proposals for funding
- Implement a National Recovery and Recycling project.
- Identify key refrigeration installations and submit retrofitting proposals to the Multilateral Fund.

### 3. PROJECTS

A summary of the projects identified so far, including Institutional Strengthening - Annex 1 and Refrigerant Management Plan – Annex 2 are given below:

(i) Name of Project	Date	Estimated Cost to Multilateral Fund(US\$)	ODS Consumed (ODP Tonnes)
Institutional Strengthening	2001 - 2004	\$201,500	Annex A: 947.32 MeBr: 122.50
Conversion of Electrical Household Appliances - Musrata Unit (freezer)	2001 - 2004	tba	29.60
Conversion of Electrical Household Appliances - Tripoli Unit (Domestic Refrigerators)	2001 - 2004	tba	14.90
Conversion of Electrical Household Appliances - Rujban Unit (Domestic Refrigerators)	2001 - 2004	tba	14.00
Conversion of Electrical Household Appliances –Tajura Unit (Water Heaters – Rigid Foam Insulation)	2001 - 2004	tba	16.60
Conversion of General Company for Plastic and Foam Industry (GCPFI) – Bayan at Green Square Unit	2001 - 2004	tba	91.00
Conversion of GCPFI – Ben Ghazi Unit (Flexible Foam)	2001 - 2004	tba	34.00
Conversion of GCPFI – Derna Unit (Flexible Foam)	2001 - 2004	tba	32.00
Conversion of GCPFI – El Wahda Unit (Flexible Foam)	2001 - 2004	tba	94.00
Conversion of GCPFI - Garabouli Unit (Flexible Foam)	2001 - 2004	tba	37.00
Conversion of GCPFI - Musrata Unit (Flexible Foam)	2001 - 2004	tba	57.00
Conversion of GCPFI - El-Houria Unit (Flexible Foam)	2001 - 2004	tba	96.00
Conversion of GCPFI - Sebha Unit (Flexible Foam)	2001 - 2004	tba	26.00
Conversion of Jenzour Company (Flexible Foam)	2001 - 2004	Tba	60.00
Conversion of Foam Company for Foam Industry (Flexible Foam)	2001 - 2004	Tba	58.00
Conversion of Kanoun Company for Foam Industry (Flexible Foam)	2001 - 2004	tba	57.00
Conversion of Brothers Company for Water Heater (Rigid Foam Insulation)	2001 - 2004	tba	11.00
Conversion of Essourur Company for Water Heater (Rigid Foam Insulation)	2001 - 2004	tba	10.00
Conversion of Eshams Company for Cold Water Tank (Rigid Foam Insulation)	2001 - 2004	tba	12.00
Conversion of Musrata company for Cold water tank (Rigid Foam Insulation)	2001 - 2004	tba	10.00
Conversion of Ali Sannoga (Rigid Foam Insulation)	2001 - 2004	tba	8.85
Retrofitting of Key Refrigeration Installations (To be identified and prepared later)		tba	N/A

Refrigerant Management Plan	i) Technician Training	2001	135,000	CFC-11 – 4.22 CFC-12 – 139.35 CFC-114 – 0.14 CFC-115 – 5.85
	ii) Training in Monitoring and Control of ODS	2001	28,000	947.32
	iii) Recovery/Recycling Project	2001 - 2002	744,500	CFC-12 – 139.35 CFC-115 – 5.85
	iv) Additional projects including end-user application	After 2004	500,000	
National or Regional Halon Bank (project to be submitted later)		2001 - 2002		1211 – 1.50 1301 – 50.00
Phase-Out projects for Methyl Bromide				122.50

Halon 1211 and 1301 are currently installed at some critical locations in industry, and conservation measures will begin soon. Plans for total replacement of Halons have not yet been developed.

#### 4. COSTS

ODP to be phased out

947.32 ODP tonnes

Total Cost of phase-out

Cannot be determined till all investment projects are prepared and approved.

Cost of projects being submitted with this Country Programme

US\$ 1,109,000

## EXECUTIVE SUMMARY

The Libyan Arab Jamahiriya ratified the 1985 Vienna Convention and the 1987 Montreal Protocol on July 11, 1990 and qualifies as an Article 5 country. In order to comply with the provisions of the Protocol, the National Committee for Climate Change (NCCC) of Libya has carried out a national survey in 2000 and formulated its Country Programme with the assistance of UNIDO and funding assistance from the Multilateral Fund.

The Country Programme provides data on import and use of ODS in Libya and expresses the commitment of the country to phase out consumption of ODS. An Action Plan has been defined, and steps will be taken to implement some or all of the action items, after scrutiny, to ensure a smooth phase out without causing undue economic hardship to the industrial, commercial and the domestic consumers.

Libya does not produce any ODS and all its requirements are met through imports. The total 1999 Annex A ODS consumption amounted to 947.32 ODP Tonnes, resulting in a consumption of 0.18 kg/capita. (1999 estimated population 5.3 million)

The principal consumption of ODS is in the Foam sector (including refrigerator and water heater insulation) – 758.45 ODP Tonnes or 80%, followed by the Refrigeration and Air Conditioning sector – 137.37 ODP Tonnes or 14.5%. Halon 1211 and 1301 are in use in critical areas, particularly in the Oil and Gas producing industries and 1999 consumption is estimated at 51.50 ODP Tonnes or 5.5% of total ODS. Methyl Bromide is used for soil treatment. The consumption in 1999 was 122.50 ODP Tonnes.

Libya is committed to phasing out the consumption of ODS in a controlled and cost effective manner. Following the lifting of the embargo, production in the foam and refrigeration sector has begun picking up, and is yet to reach peak levels. As can be seen from the consumption figures, 1999 ODS consumption is much higher than earlier years. It will take some or all of the steps outlined in the Action Plan to comply with the phase out schedule required by the Protocol. With timely assistance from the Multilateral Fund to phase out ODS in the Foam and R&AC manufacturing enterprises, the NCCC is confident of meeting the 2005 compliance requirements of 50% reduction in consumption. However, the NCCC is concerned about availability of a supply of ODS to meet the service requirements of existing ODS based R&AC equipment to enable them operate to the end of their economic life. It is expected that by 2010, most equipment will have been retrofitted or replaced with ODS free technology, with some CFC-12 based equipment remaining. It will strongly encourage recovery and recycling to meet this requirement. Market forces such as rising prices and increasing availability of ozone friendly technology, along with phase-out in the manufacturing sector with assistance from the Multilateral Fund, will play a vital role in the shift by consumers to ODS free technology, particularly in the commercial and industrial sector.

The General Peoples' Committee has nominated the National Committee for Climate Change, which reports to the Secretary of the General Peoples' Committee, for the preparation of the Country Programme and Refrigerant Management Plan. An institutional strengthening project is submitted for the formation of the National Ozone Unit. The NOU will be constituted within the

Executive Office of the National Committee for Climate Change to co-ordinate and monitor activities towards a complete phase out of ODS.

A total of US\$ 1,109,000 is being requested from the Multilateral Fund to implement the Institutional Strengthening Project and components of the Refrigerant Management Plan. All the investment projects in the R&AC, Foam and Methyl Bromide sectors will be prepared and submitted through UNIDO and UNDP for implementation in 2001/2002.