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

<table>
<thead>
<tr>
<th>Convention/Amendment</th>
<th>Signature</th>
<th>Ratification</th>
<th>Entry into force</th>
</tr>
</thead>
<tbody>
<tr>
<td>London Amendment (1990)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Copenhagen Amendment (1992)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Production of controlled substances: No controlled substances produced

Consumption of controlled substances (1999)

<table>
<thead>
<tr>
<th>Substance</th>
<th>CFC-11</th>
<th>CFC-12</th>
<th>CFC-113</th>
<th>CFC-114</th>
<th>CFC-115</th>
<th>TOTAL</th>
<th>Halon121</th>
<th>Halon130</th>
<th>TOTAL</th>
<th>CTC</th>
<th>MCF</th>
<th>TOTAL Me-Br</th>
</tr>
</thead>
<tbody>
<tr>
<td>ODS</td>
<td>770.0</td>
<td>110.9</td>
<td>10.4</td>
<td>7.7</td>
<td>899.0</td>
<td>0.5</td>
<td>5.0</td>
<td>5.5</td>
<td>5.5</td>
<td>175.0</td>
<td>105.0</td>
<td></td>
</tr>
<tr>
<td>ODP</td>
<td>770.0</td>
<td>110.9</td>
<td>10.4</td>
<td>4.6</td>
<td>895.9</td>
<td>1.5</td>
<td>50.0</td>
<td>51.5</td>
<td>105.0</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Distribution of ODP by substance:

- CFC: 85.1%
- Halon: 4.9%
- CTC and MCF: 10.0%
- MeBr: 10.0%

Distribution of ODP by sector:

- Aerosol: 72.1%
- Foam: 4.9%
- Halon: 13.1%
- Refrigeration: 10.0%
- Solvent: 0.0%
- Other: 0.0%
- MeBr: 10.0%

MONTREAL PROTOCOL (ODP tonnes)

- CFCs: 716.7
- Halons: 633.1
- Methyl bromide: 358.4

Baseline consumption: 716.7
Allowable level of consumption in 2005: 358.4

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.
Dr. Omar El-Arini  
Chief Executive Officer  
Secretariat of the Multilateral Fund for the Implementation of Protocol Montreal  
1800 McGill College 27th floor,  
Montreal, Canada, KJA 316  
Fax: 001 514 282 0068  
Tel: 001 514 282 1122

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 6th 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 النوبة:

يمكنني أن أقدم إليكم البرنامج الوطني للجماهيرية العربية الليبية الشعبية الاشتراكية العالمى للنظر في اعتماده من قبل الصندوق المتعدد الأطراف المعني.


أيضا أود أن أؤكد أن لدى الجمهورية النية في مراقبة الامتثال لنصوص البروتوكول ، وستعمل الجمهورية عند الضرورة على إتخاذ إجراءات أخرى بالإضافة إلى الإجراءات السببية بالبرنامج الوطني، وتحذير إدارته إلى اللجنة التنفيذية للصندوق المتعدد الأطراف.
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.

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

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

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:

<table>
<thead>
<tr>
<th>(i)</th>
<th>Name of Project</th>
<th>Date</th>
<th>Estimated Cost to Multilateral Fund (US$)</th>
<th>ODS Consumed (ODP Tonnes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i)</td>
<td>Institutional Strengthening</td>
<td>2001 - 2004</td>
<td>$201,500</td>
<td>Annex A: 947.32</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>MeBr: 122.50</td>
</tr>
<tr>
<td>(i)</td>
<td>Conversion of Electrical Household Appliances - Musrata Unit (freezer)</td>
<td>2001 - 2004</td>
<td></td>
<td>29.60</td>
</tr>
<tr>
<td>(i)</td>
<td>Conversion of Electrical Household Appliances - Tripoli Unit (Domestic Refrigerators)</td>
<td>2001 – 2004</td>
<td></td>
<td>14.90</td>
</tr>
<tr>
<td>(i)</td>
<td>Conversion of Electrical Household Appliances - Rujban Unit (Domestic Refrigerators)</td>
<td>2001 - 2004</td>
<td></td>
<td>14.00</td>
</tr>
<tr>
<td>(i)</td>
<td>Conversion of General Company for Plastic and Foam Industry (GCPF) – Bayan at Green Square Unit</td>
<td>2001 - 2004</td>
<td></td>
<td>91.00</td>
</tr>
<tr>
<td>(i)</td>
<td>Conversion of GCPF – Ben Ghazi Unit (Flexible Foam)</td>
<td>2001 - 2004</td>
<td></td>
<td>34.00</td>
</tr>
<tr>
<td>(i)</td>
<td>Conversion of GCPF – Derna Unit (Flexible Foam)</td>
<td>2001 - 2004</td>
<td></td>
<td>32.00</td>
</tr>
<tr>
<td>(i)</td>
<td>Conversion of GCPF – El Wahda Unit (Flexible Foam)</td>
<td>2001 - 2004</td>
<td></td>
<td>94.00</td>
</tr>
<tr>
<td>(i)</td>
<td>Conversion of GCPF – Garabouli Unit (Flexible Foam)</td>
<td>2001 - 2004</td>
<td></td>
<td>37.00</td>
</tr>
<tr>
<td>(i)</td>
<td>Conversion of GCPF – Musrata Unit (Flexible Foam)</td>
<td>2001 - 2004</td>
<td></td>
<td>57.00</td>
</tr>
<tr>
<td>(i)</td>
<td>Conversion of GCPF – El-Houria Unit (Flexible Foam)</td>
<td>2001 - 2004</td>
<td></td>
<td>96.00</td>
</tr>
<tr>
<td>(i)</td>
<td>Conversion of GCPF – Sebha Unit (Flexible Foam)</td>
<td>2001 - 2004</td>
<td></td>
<td>26.00</td>
</tr>
<tr>
<td>(i)</td>
<td>Conversion of Jenzour Company (Flexible Foam)</td>
<td>2001 - 2004</td>
<td></td>
<td>60.00</td>
</tr>
<tr>
<td>(i)</td>
<td>Conversion of Foam Company for Foam Industry (Flexible Foam)</td>
<td>2001 - 2004</td>
<td></td>
<td>58.00</td>
</tr>
<tr>
<td>(i)</td>
<td>Conversion of Kanoun Company for Foam Industry (Flexible Foam)</td>
<td>2001 - 2004</td>
<td></td>
<td>57.00</td>
</tr>
<tr>
<td>(i)</td>
<td>Conversion of Brothers Company for Water Heater (Rigid Foam Insulation)</td>
<td>2001 - 2004</td>
<td></td>
<td>11.00</td>
</tr>
<tr>
<td>(i)</td>
<td>Conversion of Essourur Company for Water Heater (Rigid Foam Insulation)</td>
<td>2001 - 2004</td>
<td></td>
<td>10.00</td>
</tr>
<tr>
<td>(i)</td>
<td>Conversion of Eshams Company for Cold Water Tank (Rigid Foam Insulation)</td>
<td>2001 - 2004</td>
<td></td>
<td>12.00</td>
</tr>
<tr>
<td>(i)</td>
<td>Conversion of Musrata company for Cold water tank (Rigid Foam Insulation)</td>
<td>2001 - 2004</td>
<td></td>
<td>10.00</td>
</tr>
<tr>
<td>(i)</td>
<td>Conversion of Ali Sannoga (Rigid Foam Insulation)</td>
<td>2001 - 2004</td>
<td></td>
<td>8.85</td>
</tr>
<tr>
<td>(i)</td>
<td>Retrofitting of Key Refrigeration Installations (To be identified and prepared later)</td>
<td>tba</td>
<td>N/A</td>
<td></td>
</tr>
</tbody>
</table>
| 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  
| iv) Additional projects including end-user application | After 2004 | 500,000 | CFC-115 – 5.85  
| National or Regional Halon Bank (project to be submitted later) | 2001 - 2002 |      | CFC-12 – 139.35  
| Phase-Out projects for Methyl Bromide | | | | CFC-115 – 5.85  

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

<table>
<thead>
<tr>
<th>ODP to be phased out</th>
<th>947.32 ODP tonnes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Cost of phase-out</td>
<td>Cannot be determined till all investment projects are prepared and approved.</td>
</tr>
<tr>
<td>Cost of projects being submitted with this Country Programme</td>
<td>US$ 1,109,000</td>
</tr>
</tbody>
</table>
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.