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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Twenty-fourth Meeting
Montreal, 25-27 March 1998

COUNTRY PROGRAMME: MALI

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

MALI COUNTRY PROGRAMME EVALUATION SHEET

Ozone Secretariat, Ministry for the Environment

Status of ratification of the Vienna Convention and the Montreal Protocol

	Signature	Ratification	Entry into force
Vienna Convention (1985)		28-Oct-94	26-Jan-95
Montreal Protocol (1987)		28-Oct-94	26-Jan-95
London Amendment (1990)		28-Oct-94	26-Jan-95
Copenhagen Amendment (1992)			

Production of controlled substances: No controlled substances produced

Consumption of controlled substances (1995) 104.5 metric tonnes
103.9 weighted tonnes (ODP)

(tonnes)	CFC-11	CFC-12	CFC-113	CFC-114	CFC-115	TOTAL Halon1211	Halon1301	TOTAL	CTC	MCF	TOTAL	Me-Br
ODS	38.0	65.0			1.5	104.5						
ODP	38.0	65.0			0.9	103.9						

Distribution of ODP by substance: CFC 100.0% Halon CTC and MCF

<i>Distribution of ODP by sector:</i>	Aerosol	Foam	Halon	Refrigeration	Solvent	Other
Consumption (ODP tonnes):	0.0	19.0	0.0	84.9	0.0	0.0
Percent of total:		18.3%		81.7%		

Country Programme

Duration of country programme: 13 years (1998-2010)

ODS phase out target: Complete phase-out by 2010

Phase out priority area: Foam and refrigeration sectors

Cost of activities in country programme: \$274,000

Strategy:

The Government of Mali intends to comply with the provisos set by the Montreal Protocol, by introducing a tax regime to discourage the import of ODS and of new equipment using CFCs, regulations prohibiting the installation of new industrial plants consuming large quantities of ODS, incentives to promote the import of replacement substances in the sectors using ODS; regulations to control the import of second-hand CFC-based refrigeration systems; encouraging measures stemming from the refrigerant management plan including the recovery, recycling and re-use of ODS; and creating a customs list of banned substances mainly CFCs, HCFC-22, methyl bromide, and halons.

COMMENTS AND RECOMMENDATIONS OF THE FUND SECRETARIAT

COMMENTS

1. The Country Programme conforms to the format of the approved guidelines. The total ODS consumption in the country is estimated at 104.5 metric tonnes of CFCs, of which 85.5 tonnes are used to service refrigeration equipment including MACs, and 19 tonnes used as a foam blowing agent.
2. During the preparation of the country programme a survey was conducted to determine the total consumption of controlled substances in the country. A number of questionnaires were prepared for refrigeration maintenance workshops, industries using ODS and importers. The National Working Party also visited refrigeration plants, the Association of Refrigeration Engineers, the Customs Department, the Energy Supply Department and public service and private enterprises.
3. More than 80 per cent of the CFCs in the refrigeration sector are consumed by maintenance shops. The survey covered 175 refrigeration workshops in the country of which 140 are located in Bamako. These workshops repair not only domestic refrigerators and freezers but also motor vehicle air conditioners, cold chambers and centralized air conditioning systems. Most of the work is done by technicians who have been trained on the job, using fairly unsuitable tools.
4. Two enterprises manufacture flexible polyurethane foam in Mali: Simorev, using methylene chloride as a blowing agent and Fofy, using methylene chloride and CFC-11 (19 tonnes) for a total production of 400 tonnes of foam. The three aerosol fillers in the country (Sodema, Mapalco and Sirpaco) use hydrocarbon as a propellant.
5. The country programme includes a project for the establishment of an Ozone Unit within the Ministry for the Environment (institutional strengthening). The Government of Mali is requesting a total of US \$70,000 for the implementation of this project.
6. The main responsibilities of the Ozone Unit would include: monitoring the development and implementation of a Refrigeration Management Plan and the associated projects for policies, strategies, laws, regulations, incentives; providing industry with the most up-to-date information on ODS replacement and the most recent technologies available; supervising the public awareness programme; serving as a point of contact for the Multilateral Fund, Montreal Protocol and the implementing agencies; reporting annually to the Ozone Secretariat on the CFC consumption in the country according to Article 7 of the Montreal Protocol; and reporting annually to the Executive Committee on the progress in the implementation of the Country Programme.
7. A project proposal for the preparation of a national refrigerant management plan by UNEP is included in the country programme (US \$30,000).

RECOMMENDATIONS

The Fund Secretariat recommends as follows:

1. To approve the Mali 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 Mali 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 27 March 1998 to 31 December 1998, should be submitted to the Fund Secretariat no later than 31 March 1999.
3. To approve the amount of US \$70,000 and US \$9,100 support cost for institutional strengthening as an amendment to UNEP's 1998 work programme. To request UNEP to proceed with the disbursement of the first one-year tranche of the funds approved for institutional strengthening, but subsequent disbursements to be contingent on the submission of a report to the Executive Committee on the status of development of a refrigerant management plan (Decision 20/4).

PROGRAMME DE RECHERCHE S.S.E

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MINISTRE DE L'ENVIRONNEMENT
SECRÉTARIAT GÉNÉRAL

REPUBLIQUE DU MALI
UN PEUPLE - UN BUT - UNE FOI

BAMAKO, LE 03 FEV. 1998

Le Ministre de l'Environnement
Bamako



0046/MS-EG

Docteur El Arini, Chef du Secrétariat
Secrétariat du Fonds Multilatéral
aux Fins de l'Application du
Protocole de Montréal.

Cher Docteur El Arini,

La République du Mali a ratifié le Protocole de Montréal le 28 octobre 1994.

La consommation du Mali étant inférieure à 0.3 Kg/habitant, il est donc visé par les dispositions du paragraphe 1 de l'article 5 du Protocole.

Nous avons l'honneur de vous transmettre, pour approbation et financement, notre Programme de Pays. Celui-ci, réalisé sous la direction du Ministère de l'Environnement avec l'assistance du Programme des Nations Unies pour l'Environnement (Industrie et Environnement), a permis l'élaboration d'une stratégie qui prévoit un plan d'action et par la suite la réalisation de projets.

Ces projets vont permettre l'élimination totale des substances qui appauvrissent la couche d'ozone d'ici à l'an 2010.

Le Gouvernement a approuvé l'ensemble des actions contenues dans le présent Programme de pays, et s'assurera que la mise en oeuvre se fera en accord avec les dispositions du Protocole de Montréal. Ainsi, il pourra être modifié et soumis une nouvelle fois à l'approbation du Comité Exécutif du Fonds Multilatéral si d'autres actions s'avéraient nécessaires au bon respect du Protocole.

En attendant, nous espérons que le Comité Exécutif du Fonds Multilatéral approuvera, lors de sa réunion, le présent Programme de Pays et financera les projets qui y sont contenus.

Les projets proposés sont :

- projet de renforcement des institutions ;
- projet d'élaboration d'un plan de gestion des fluides frigorigènes ;
- projet de reconversion d'une usine de mousse.

Nous vous prions d'agréer, cher Docteur El Arini, notre haute considération.



COVER SHEET

Country: Republic of Mali
Principal national agency: Ministry for the Environment
Principal implementing agency: UNEP-IE
Date of receipt: ...
Period covered by the Country Programme: 1998 - 2010

1. Phase-out timetable

Substances	Current consumption in tonnes of ODP, 1995	Expected total consumption until phase-out (in tonnes of ODP)	Phase-out year
CFC 11	38	244.35	2010
CFC 12	65	506.49	2010
CFC 13	0.9	5.40	2010
Total	103.9	756.24	

2. Action plan of the government

Year(s)	Steps to be taken	Sector	Planned effects
1998	Creation of Ozone Office	All	Co-ordination and follow-up of activities included in the Country Programme
as from 1998	Fiscal measures to discourage import of ODS and systems that contain them	Refrigeration and air conditioning	To slow down the growth of future consumption
1998	Refrigerant Management plan (RMP)	Refrigeration and motor vehicle air conditioning	Improved co-ordination of the different projects in this sector with a view to reducing consumption of ODS
1999	Training customs officers to identify ODS	All	Controlling amounts of ODS imported into the country
1999	Conversion of the FOFY foam plant*	Foam	Eliminating 20% of the country's consumption

* For reference only: to be developed and submitted later

3. Summary of project

Years	Project type	Description of project	Project budget US\$	Funding requested from the MF (US\$)	Implementing agencies (if any)	Tonnes of ODP phased out
1998-2001	Ozone Office	Co-ordination and follow-up of activities included in the Country Programme	94,300	70,000	UNEP	
1998-2001	Refrigerant Management plan	Projects related to refrigeration sector with a view to reducing ODS consumption	30,000	30,000	UNEP. The CFD will cover the capital costs of the recycling project.	To be determined
1999	Conversion of plant producing flexible polyurethane foam		150,000 (to be confirmed)	-	CFD	19 tonnes

4. Costs

Cost of activities and projects in the Country Programme	\$US 100,000
Estimated cost of complete phase-out	\$US 274,300
Estimated specific cost	\$US 2.6/kg

SUMMARY

R1. Mali signed and ratified the Vienna Convention and the Montreal Protocol on the protection of the ozone layer on 28 October 1994.

R2. The government set up a national working party, under the auspices of the Ministry for the Environment, to draw up a country programme for implementing the Montreal Protocol.

R3. The national working party received the technical and financial support of UNEP.

R4. The country programme was prepared according to the indications of the Executive Committee set out in the report of its 5th meeting (document UNEP/OZL.Pro/Ex Com/5/16).

R5. Consumption in 1995 was 103.90 tonnes of ODP.

R6. The population of Mali is about 9,190,940 and its specific consumption is 0.011 kg *per capita*.

R7. Mali neither produces nor exports ODS.

R8. The principal ODS used are CFC-11 (38 t) and CFC-12 (65 t).

R9. All the CFC-12 is used in the refrigeration sector; 19 t of CFC-11 is used for making foam, the rest in refrigeration.

R10. The aerosol manufacturers use hydrocarbons as propellant gases.

R11. For fire extinguishers, halons have been given up in favour of CO₂.

R12. The country's requirements from 1995 to 2010 have been predicted assuming that imports of refrigeration systems go up by 5% a year, that no constraints are applied under the Protocol, and that replacement substances are available in sufficient quantity.

R13. The government has decided to institute a plan of action to ensure that the ODS phase-out timetable is maintained.

R14. This plan of action focuses on the following measures:

- increasing customs duties on the import of ODS and new refrigerators employing CFCs;
- incentives to promote the import of replacement substances in those sectors using ODS;
- introduction of regulations on the import of second-hand refrigeration systems containing CFCs;
- encouragement to recover, recycle and re-use ODS;
- funding of alternative technologies through grants from the Fund;
- encouraging measures stemming from the Refrigerant Management Plan;
- establishment of a customs "banned substances" list for certain ODS, notably CFC-11, CFC-12, CFC-115 (R502), HCFC-22, methyl bromide, and the halons (1301 and 1211);
- introduction of regulations banning the installation in Mali of new industrial units consuming large amounts of ODS;
- training customs officers to control and track down ODS.

R15. Three projects are proposed to meet the ODS phase-out timetable laid down by the Montreal Protocol:

- Creation of the Mali Ozone Office
- Conversion of a foam plant
- Formulation of a plan to control refrigerant fluids. This project will lead to others in the field of refrigeration

R16. The cost of the present plan of action is \$US 250,000. This amount does not cover the projects resulting from the refrigerant Management plan.

R17. The cost of the project to convert the foam production plant is approximate and will require further work.

R18. The government of Mali submits the present country programme to the Executive Committee of the Montreal Protocol Multilateral Fund in seeking financial support

Appendix 1

PROJECT N°1: Mali Ozone Office

- | | |
|-----------------------------------|---|
| 1. Title of request: | Creation of a Mali Ozone Secretariat |
| 2. Name of country: | Mali |
| 3. Duration: | 3 years |
| 4. Operating agency: | Ministry for the Environment |
| 5. Implementing agency: | UNEP |
| 6. Consumption of controlled ODS: | 103.90 tonnes |
| 7. Planned budget: | \$ US 94,300 |
| 8. Objectives: | The secretariat will have the task of co-ordinating and monitoring all the actions and projects of the government |
| 9. Responsibilities: | <ul style="list-style-type: none">• To verify implementation of the undertakings accepted by the government as described in the Country Programme,• Supervising the public awareness program,• Keeping in touch with the Montreal Protocol Secretariat and other organisations involved in the ozone question,• Providing industry with the most up-to-date information on ODS replacement and the most recent technologies available elsewhere in the world,• Evaluating potential candidates for the special training programmes,• Organising and running seminars,• Reviewing the problems of applying the Montreal Protocol in industry,• Monitoring the formulation and execution of the Refrigerant Fluid Management Plan. |
| 10. Justifications: | <ul style="list-style-type: none">• Action to deal with the lack of awareness of the phenomenon of ozone layer depletion, its potential impact on humanity and the scientific and technical data relative to the protection of the ozone layer in general and the use of ODS replacement technologies in particular,• Assisting the institutional infrastructure to cope with the problems raised by the phase-out of ODS |
| 11. Beneficiaries of the project: | Present and potential consumers of ODS |
| 12. Expected results: | <ul style="list-style-type: none">• Monitoring progress of actions developed within the ODS phase-out programme and keeping the Multilateral Fund informed,• Making an annual report on expenditure in the field of institutional support,• Exchanging relevant information with other countries,• Facilitating access to the new technologies by local business. |

FUNDING REQUESTED FROM THE MULTILATERAL FUND

	First Year \$US	Second Year \$US	Third Year \$US	TOTAL \$US
1. Capital expenditure				
Office equipment				
PC with CD drive	6,000			
Printer and software				
Modem and inverter				
Photocopier + fax	3,000			
SUB-TOTAL 1	9,000			
2. Regular expenditure				
Supervisors	4,000	4,000	4,000	
Support personnel	2,500	2,500	2,500	
SUB-TOTAL 2	6,500	6,500	6,500	
3. Running costs				
Missions and official travel	5,000	5,000	5,000	
Research, surveys, etc.	2,500	2,500	2,500	
Communication (telephone, post)	2,000	2,000	2,000	
Services (water, electricity, etc.)	2,000	1,000	1,000	
Office supplies	2,000	2,000	2,000	
Equipment maintenance	1,000	1,000	1,000	
SUB-TOTAL 3	14,500	13,500	13,500	
GRAND TOTAL	30,000	20,000	20,000	70,000

CONTRIBUTION BY THE GOVERNMENT OF MALI

	First Year \$US	Second Year \$US	Third Year \$US	TOTAL \$US
1. Basic salary of three civil servants	6,000	6,000	6,000	18,000
2. Premises	2,100	2,100	2,100	6,300
TOTAL	8,100	8,100	8,100	24,300