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COUNTRY PROGRAMME: LAO PEOPLE'S DEMOCRATIC REPUBLIC

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 Lao PDR
- Country Programme Cover Sheet
- Country Programme (Executive Summary)

LAO PEOPLE'S DEMOCRATIC REPUBLIC COUNTRY PROGRAMME EVALUATION SHEET

National Ozone Unit, Science, Technology and Environment Agency

Status of ratification of the Vienna Convention and the Montreal Protocol

	Signature	Ratification	Entry into force
Vienna Convention (1985)		21-Aug-98	19-Nov-98
Montreal Protocol (1987)		21-Aug-98	19-Nov-98
London Amendment (1990)			
Copenhagen Amendment (1992)			

Production of controlled substances: No controlled substances produced

Consumption of controlled substances (1999) 43.3 metric tonnes
43.3 weighted tonnes (ODP)

(tonnes)	CFC-11	CFC-12	CFC-113	CFC-114	CFC-115	TOTAL Halon121	Halon130	TOTAL	CTC	MCF	TOTAL	Me-Br
ODS	30.0	13.3				43.3						
ODP	30.0	13.3				43.3						

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

Distribution of ODP by sector:	Aerosol	Foam	Halon	Refrigeration	Solvent	Other	MeBr
Consumption (ODP tonnes):	0.0	30.0	0.0	13.3	0.0	0.0	0.0
Percent of total:		69.3%		30.7%			

MONTREAL PROTOCOL (ODP tonnes)	CFCs	Halons	Methyl bromide
Baseline consumption	43.3		
Allowable level of consumption in 2005	21.6		

Source: Ozone Unit (June 2001)

Country Programme

Duration of country programme: 9 years (2001-2010)

ODS phase out target: 73% reduction by end-2003. Complete phase out by end-2009

Phase out priority area: Foam and refrigeration servicing sectors

Cost of activities in country programme: \$1,055,000

Strategy:

The Government is committed to phasing out consumption of ODSs as early as possible, taking into consideration the economic impact of the phase out. The Government will prohibit the import of ODS based equipment or products containing ODSs and formulate regulations, where necessary, to prohibit the use of ODS in manufacturing processes and in the refrigeration service workshops; existing ODS-based industries will continue operating subject to approval by the relevant authorities and in line with the national ODS phase-out plan (the manufacturing industries and the refrigeration servicing workshops will be registered for close monitoring). As a Party to the Montreal Protocol, Lao PDR will be committed to comply with the Protocol limits on consumption in the various amendments.

COMMENTS AND RECOMMENDATIONS OF THE FUND SECRETARIAT**COMMENTS**

1. The only survey on consumption of ODS in Lao PDR was carried out in 2000 for the preparation of the country programme and refrigerant management plan (RMP). Many difficulties were encountered during the survey. A large number of refrigerant and air conditioning users and service workshops are scattered across the country and most of them are in the unorganised sector. It was also difficult to identify ODS importers, as most of them import small quantities direct from Thailand without declaring it. Based on this survey, the 2000 ODS consumption in the country was estimated at 43.3 ODP tonnes of CFCs used in the foam sector (30 tonnes) and for servicing refrigeration equipment (13.3 tonnes). The CFC baseline for Lao PDR's was also assumed at 43.3 ODP tonnes. ODS consumption data collected during the preparation of the country programme has been forwarded to the Ozone Secretariat.
2. The largest consumption of CFCs in the country (30 tonnes of CFC-11 equivalent to 70 per cent of the total consumption) is by one manufacturer of mattresses (Prasert Foam). The refrigeration service sector consists of about 300 technicians, most of them working on small service workshops in the unorganised sector (100) and servicing household refrigerators and small commercial refrigeration equipment (such as display cabinets and bottle coolers). Since 1998, HFC-134a based refrigeration equipment have been introduced into the market.
3. Based on the information gathered during the survey and the data collected by the consultants preparing the country programme and the RMP project, it was concluded that the ODS consumption in the aerosol, solvent, fire fighting and fumigant (methyl bromide) sectors is nil. However, this information cannot be corroborated because of the lack of awareness among users and reliable data on all chemicals in the country.
4. The Government of Lao PDR is proposing an import-export management regulations, by which imports of ODSs will be approved in accordance with the ODS phase-out plan in the country programme taking due account of essential ODS use; the prices of ODSs and their substitutes will be adjusted when necessary to ensure a cost-effective transition process; and existing relevant laws and regulations will be adjusted to reflect the adequate management and control of each ODSs used in the country. The Government is also considering a ban on the use of ODS in all new equipment projects and a subsequent ban on the import of ODS-based equipment and products by beginning of 2002.
5. Taking into consideration that about 70 per cent of the total consumption of ODS in the country is by one company in the foam sector, and by converting it to a non-CFC technology, Lao PDR will be in compliance with the 50 per cent CFC reduction in 2005, the Government of Lao PDR was advised to request assistance from an implementing or bilateral agency to prepare a project proposal aimed at phasing out the consumption at this plant by late 2002 or early 2003.
6. The country programme includes a project for the establishment of a National Ozone Office within the Science, Technology and Environment Agency (institutional strengthening). The Government of Lao PDR is requesting a total of US \$105,000 for the implementation of this

project. The Fund Secretariat's comments and recommendations on this request are presented under UNEP's work programme amendments (UNEP/OzL.Pro/ExCom/34/22).

7. The country programme also includes a refrigerant management plan (RMP) project proposal. The Government of Lao PDR is requesting a total of US \$444,992 for the implementation of this project. The Fund Secretariat's comments and recommendations on this request are presented in document UNEP/OzL.Pro/ExCom/34/20.

RECOMMENDATIONS

The Fund Secretariat recommends as follows:

8. To approve the Lao PDR Country Programme. Approval of the Country Programme does not denote approval of the projects identified therein or their funding levels.

9. To request the Government of Lao PDR 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 2000 to 31 December 2001, should be submitted to the Fund Secretariat no later than 1 May 2002.

COUNTRY PROGRAMME COVER SHEET

Country Programme : **Lao PDR**

Lead National Agency : **Science, Technology and Environment Agency**

Period Covered by the Country Programme : **2000 – 2010**

1. Phase-out Schedule

Substance	%	Current Consumption (ODP)	Planned Total Consumption till Phase-out Time	Planned Year of Phase-out
CFC 11	69	30.00 x 1.0 =30.00	90.00 x 1.0 =30.00	2003
CFC 12	31	13.25 x 1.0 = 13.25	90.70 x 1.0 =90.70	2010
		TOTAL = 43.25	TOTAL = 180.70	

2. Government Action Plan

Year	Description of Action	Sector	Intended Effect
1. INSTITUTIONAL MEASURES			
2001	Establish National ODS Phase-out Committee and an Ozone Protection Unit (OPU) within STEA to facilitate ODS phase-out.	All	Create an institutional mechanism to steer ODS phase-out
2001	Establish relevant industrial sector expert groups to facilitate the formulation and implementation of phase-out action plans.	All	Create an institutional mechanism to facilitate ODS phase-out
2001	Enhance data collection and reporting procedure through introduction of an Application Permit System whereby the approved importers are required to report on quantity and types of ODS imported as well as on potential users.	All	Strengthen the institutional mechanism to facilitate ODS phase-out
2001	Compile information on ozone layer protection. Set up databases on relevant non-ODS technologies and alternatives.	All	Create supporting measures to facilitate ODS phase-out
2001	Capacity building of Government Ministries in preventing the creation of new sources of ODS consumption e.g. informing relevant approving authorities dealing with importers of ODS and ODS based equipment/products about the ODS Action Plan and the action required from them.	All	Educate all stakeholders to participate effectively in the national phase-out action plan
2. REGULATORY MEASURES			
2001	In addition to existing Customs rules to address ODS issues, where necessary,	All	Introduce control measures to facilitate ODS phase-out

Year	Description of Action	Sector	Intended Effect
	monitor individual ODS and report to STEA		
2001	Formulation of law/regulations or the issuance of administrative directives to ban or control the use of ODS in the various sectors	All	Introduce control measures to facilitate ODS phase-out
2001	Continuous improvement of Application Permit system to control import/ export of ODS	All	Introduce control measures to facilitate ODS phase-out
2001	Formulation of guidelines on the use of non-ODS technologies to assist the relevant Government planning Committees in vetting investment projects	All	Introduce control measures to facilitate ODS phase-out
2001	Introduce monetary instruments e.g. tax incentive schemes such as tax reduction on the use of non-ODS based goods and ODS alternatives	All	Introduce control measures to facilitate ODS phase-out
2001	Initiate voluntary agreements with companies/industry groups under which they commit to change to substitutes/alternatives without further action from the government.	All	Introduce control measures to facilitate ODS phase-out
3. REPORT/STUDIES			
2000	Preparation of ODS Country Programme (CP).	All	Formulate Action Plan for ODS Phase-out
2001	Registration of users and sources of ODS consumption as a follow-up to the preparation of the CP.	All	To facilitate the ODS phase-out
2003	Preparation of ODS Country Programme Update.	All	Up-dating the CP and Action Plan in the light of the implementation
2001	Study/Documentation of non-ODS alternatives/substitutes applicable to Lao PDR.	All	To facilitate ODS phase-out
2002	Study the use of Methyl Bromide in agricultural sector and of CFCs in sterilants and MDIs.	Methyl bromide & CFC in sterilants	To confirm the use of methyl bromide in agricultural, CFCs in sterilants and MDIs.
4. ODS REDUCTION PLANS			
2001	Formulation of Refrigerant Management Plan for Mobile Air Conditioning Sector and for Central Air Conditioning as well as Refrigeration Sectors.	Air Conditioning and Refrigeration	To facilitate ODS phase-out in the sector.
2001	Formulation of Servicing Plan for the Fire Fighting Sector using recycled halon	Fire Fighting	To facilitate ODS phase-out in the sector.
2001	Formulation of Reduction Plans for the	Solvent/	To facilitate ODS phase-out

Year	Description of Action	Sector	Intended Effect
	Solvent (Cleaning), Aerosol and Foam Sectors where relevant.	Aerosol/Foam	in the sector.
5. PUBLIC AWARENESS CAMPAIGN			
2001	Organising conference/seminar on ozone layer protection for all the stakeholders	All	To strengthen the capacity of stakeholders participating in ODS phase-out
2001	Organising sector seminar/workshops on non-ODS alternatives/ substitutes	All	To strengthen the capacity of stakeholders participating in ODS phase-out
2001	Organising training seminar/workshops for servicing and maintenance workshop operators	Air conditioning and Refrigeration	To strengthen the capacity of servicing workshop operators in recycling and reusing of CFCs
2001	Education Curriculum - While public awareness campaigns are carried out, any relevant practical activities are required such as introducing the Ozone Layer Protection as a subject in the education curriculum for Secondary Schools	All	To create awareness on ozone layer protection among secondary schools
2001	Public awareness through Slogan, Poster, Brochures, Pictures competition, sport activities, quiz etc to be carried out through co-operation with mass media	All	To create public awareness on ozone layer protection
6. PLANS TO BE PREPARED			
2003	Refrigerant Management Plan (RMP)	Air conditioning and Refrigeration	To facilitate ODS phase-out in the sector
7. INVESTMENT PROJECTS			
2001	Prasert Foam Co. Ltd.	Foam	To facilitate ODS phase-out in the foam sector
2001 - 2010	Others to be specified later based on the RMP	Air conditioning and Refrigeration	To facilitate ODS phase-out in the Air conditioning and Refrigeration sector

Executive Summary

1. This Country Programme (CP) reflects the commitment of Lao PDR to its obligation as a Party to the Montreal Protocol having in mind the socio-economic needs of the country. The CP was approved by the Government of Lao PDR and is being presented to the 34th meeting of the Multilateral Fund Executive Committee (MFEC) for approval.
2. The CP provides the socio-economic background of Lao PDR. It presents the current status as well as forecasts (assuming that no action is taken to phase-out ODS consumption) on the consumption of Ozone Depleting Substances (ODS) in Lao PDR. It outlines the proposed institutional and policy frameworks for ODS phase-out and outlines the actions to be taken by the Government and industries, the implementation strategies, the action plan and the proposed ODS phase-out projects and activities. Lao PDR is seeking financial assistance from the Multilateral Fund (MLF) to fund the activities.
3. Lao PDR does not produce or export ODS. Based on the ODS Survey conducted, the estimated consumption in 1999 was 41.2 Metric Tonnes (ODP) of Annex A Group I CFCs or 0.0412 kg per capita based on a population of 5 million in 1999. The major bulk of consumption (30.0 MT) came from the use of CFC 11 in one foam manufacturing company. The rest of the consumption of 11.2 MT is made up of 8.0 MT for the servicing needs of Mobile Air Conditioners (MAC) and the other 3.2 MT for serving the air conditioning (excluding MAC) and refrigeration sector. A second estimation of the ODS consumption based on the first charge and servicing needs of ODS using equipment showed that the consumption may be in the region of 43.25 MT per annum. This figure was adopted for the ODS phase-out plan.
4. Lao PDR has proposed to implement a series of actions, which would ensure that the consumption of CFCs are phased-out within the Developing Countries ODS Phase-out Schedule required under the Montreal Protocol. It has also made some provisions in the first three years of the implementation to allow time to build up the capacity of the various stakeholders to participate fully in the implementation.
