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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Forty first Meeting
Montreal, 17 -19 December 2003

COUNTRY PROGRAMME: PAKISTAN

This document consists of:

- Comments and Recommendations of the Fund Secretariat
- Letter from the Government of Pakistan
- Country Programme (Executive Summary)

PAKISTAN COUNTRY PROGRAMME UPDATE

1. The Government of Pakistan submitted to the 41st Meeting of the Executive Committee the Pakistan country programme update.

ODS phase out projects approved for funding

2. So far, the Executive Committee has approved 53 ODS projects and activities for Pakistan at a total cost of US 14,707,931, to phase out 1,343.8 ODP tonnes of ODSs. As of December 2002, a total of 445.4 ODP tonnes have been phased out and US $9,009,583 has been disbursed. Annex I provide a list of Multilateral Fund projects and activities approved for Pakistan.

ODS consumption

3. The ODS baselines for compliance in Morocco and allowable ODS consumption for 2005-2015 are as follows:

Allowable consumption (ODP tonnes)	**CFC**	**Halon**	**MB**	**CTC**	**TCA**
Baseline consumption	1679.4	14.2	14.0*	412.9**	2.3**
2005	839.7	7.1	11.2	62.00	1.61
2007	251.91	7.1	11.2	62.00	1.61
2010	0	0	11.2	0	0.69
2015	0	0	0	0	0

*1995-1998 baseline
**1998-2000 baseline

4. In 2002, the Government of Pakistan reported to the Ozone Secretariat a total CFC consumption of 1,646.7 ODP tonnes (mainly CFC-11 and CFC-12), with the following sectoral distribution:

Aerosol sector	0 ODP tonnes
MDIs	69.4 ODP tonnes
Foam sector	260.7 ODP tonnes
Refrigeration manufacturing sector	702.7 ODP tonnes
Refrigeration servicing sector	613.9 ODP tonnes

5. The 2002 CFC consumption is slightly lower than the CFC baseline for compliance (1,679.4 ODP tonnes), primarily because of the CFC phase out associated with the conversion of the foam sector to non-CFC technologies (759 ODP tonnes approved for funding). Conversely, the consumption of carbon tetrachloride (CTC) has remained unchanged (655.6 and 636.9 and ODP tonnes in 2001 and 2002, respectively) as its level of consumption in the country was underestimated (and only 88.8 ODP tonnes have been funded for phase out). Halon consumption has also remained unchanged (no halon projects have been prepared) and the 2002 TCA consumption reported under Article 7 was zero.

6. CFC consumption in Pakistan continues to be concentrated as much in the manufacturing sector as it is in the servicing sector. One transnational corporation (with a 22 per cent local ownership) is producing CFC-based MDIs, with a total consumption of 69.4 ODP tonnes. In the servicing sector, CFC-based refrigerators continue to dominate the market in the next 15 years.

7. When all Multilateral Fund approved projects are completed in the refrigeration and foam sectors, about 46 per cent of total CFC consumption will still remain unfunded in the manufacturing sector.

8. In order to meet its 2005 Montreal Protocol's obligations, the Government of Pakistan intends to target sectors which will enable a rapid phase out of CFC within two years. Pakistan has indicated that manufacturers which plan to continue using CFC until 2010, such as the MDI manufacturer, will have to be dissuaded to ensure that the final end-user is not left with the burden of a sudden end to CFC-based products.

Unfunded CFC consumption according to the country programme update

9. According to the Pakistan country programme update, the remaining ODS consumption to be phased out after taking into account all ongoing projects so far approved by the Executive Committee is shown in the following table:

Sector	**ODP tonnes**			
	2002 consumption	**Already funded**	**Remaining funded consumption**	**Remaining unfunded consumption**
CFCs				
Aerosol	-	-	-	-
Foam	260.8	759.1	153.9	106.9
MDIs	69.4	-	-	69.4
Domestic refrigeration	443.5	148.3	148.3	295.2
Commercial refrigeration	254.0	208.0	185.0	69.0
MAC (for buses)	5.3	-	-	5.3
Refrigeration servicing	614.0	-	-	614.0
Total CFCs	1,646.8	1,115.4	487.2	1,159.7
Other ODSs				
Halon	17.0	-	-	17.0
Process agents (CTC)	80.0	80.0	80.0	-
Solvents (CTC / TCA)	556.9	140.3	80.7	476.2
Fumigation (MB)	-	-	-	-

Policy measures

10. The National Ozone Depleting Substance Phase Out Policy was approved in November 2000 by the Cabinet. It includes, among others, higher tariff on ODSs and components for ODS-based products and restrictions on production of CFC products with effect from 31 December 2003. Also, on 7 September 2001 the Central Board of Revenue issued a regulation removing concessionaire duties for components and raw material for CFC-free refrigerators and freezers;

and import duties on components and raw material for production and service of CFC-based equipment may be increased from 10 –25 per cent to 35 per cent.

11. In addition, a reduction in import quotas of CFCs used for manufacturing and servicing refrigeration equipment was approved and agreed by the Ministry for Industry and Production and the Ministry for Environment as follows: 10 per cent in 2002 – 2003; 15 per cent in 2003 – 2004; 25 per cent in 2004 – 2005; and 50 per cent by 1st January 2005.

Project proposals submitted to the 41st Meeting

12. The Government of Pakistan submitted to the 41st Meeting of the Executive Committee, three projects proposals to phase out 1,063.6 ODP tonnes of CFCs and one project proposal for the phase out of 413.7 ODP tonnes of ODS solvents (mainly CTC):

(a) Phase out of the use of CFCs in remaining foam enterprises: Pakistan Insulation, Simpson Wire, HEPCO, Indus Plastic, Workman and Thermocraft Engineering (World Bank), with a total CFC phase out of 104.8 ODP tonnes;

(b) Phase out of the use of CFC-11 and CFC-12 in the manufacture of refrigeration equipment at Dawlance, United Refrigeration, Ice Age and at 29 small enterprises (World Bank), with a total CFC phase out of 344.8 ODP tonnes;

(c) Implementation of the refrigerant management plan (RMP), (UNIDO), for a total phase out of 614 ODP tonnes of CFCs used in the refrigeration servicing sector; and

(d) Sector phase-out plan of CTC (UNIDO), with a total phase out of 413.7 ODP tonnes of CTC.

13. The Fund Secretariat's comments and recommendations of the above projects could be found in document UNEP/OzL.Pro/ExCom/41/51.

SECRETARIAT'S COMMENTS AND RECOMMENDATIONS

COMMENTS

14. According to Decision 35/57 of the Executive Committee, the remaining consumption eligible for funding for Pakistan was calculated at 487.1 ODP tonnes of CFCs on the basis of Option 1 (Montreal Protocol baseline) or 250.9 ODP tonnes on the basis of Option 2 (very recent consumption) (document UNEP/OzL.Pro/ExCom/35/61). Since the 35th Meeting, the Executive Committee has approved a total of 14.2 ODP tonnes of CFCs in Pakistan. Therefore, the maximum remaining CFC consumption eligible for funding is 472.9 ODP tonnes, based on Option 1.

15. Since the 37th Meeting, the Government of Pakistan submitted project proposals for the phaseout of CFC in the manufacturing sector and in the refrigeration-servicing sector, and for

phase-out in the solvent sector. However, due to outstanding issues related to the remaining ODS consumption eligible for funding, the project proposals were subsequently withdrawn.

16. In the World Bank's letter of submission of the Pakistan country programme update, stated that:

(a) "With the Government's endorsement, [the World Bank] has received instructions on how Pakistan would like to proceed in regards to Decision 35/57. Pakistan has chosen Option 1, with an understanding that the remaining consumption for funding is 503.14 ODP MT. This includes the consumption of the cancelled refrigeration project (PAK/REF/26/INV/31). Although the enterprise was liquidated, the production capacity has remained and is now being used by a group of four partners since the end of 2002. This group has been operating with a reduced number of the old employees to produce this year.

(b) In addition, in the final CPU, the Government of Pakistan has indicated that it plans on prioritizing CFC phase out by targeting all remaining manufacturing enterprises at once (288 ODP MT total eligible consumption), while commencing activities in the servicing sector to permit sufficient lead time for putting the RMP into place (184.79 MT to 214.99 MT remaining eligible consumption, depending on the decision on the cancelled project above). This relates, of course, to the issue of the amount of CFC that may be funded at the upcoming Executive Committee meeting.

(c) Rather than reducing the issue to only a matter of ODP tons that may be funded according to the model at the 41st Executive Committee meeting, the Bank would like to call to the Secretariat's attention that there is a remaining "unfunded" consumption of over 1000 ODP MT. With the implementation of the proposed projects, the phase out achieved will be higher than the limited amount that may be funded. The refrigeration proposal for example, will phase out 369.4 MT although only 181.3 MT can be compensated. Implementation of this phase out must commence immediately, however, to ensure all of the phase out occurs as scheduled in the next few years".

17. Regarding consumption of the cancelled refrigeration project (PAK/REF/26/INV/31), the World Bank submitted a letter from the new proprietors which confirmed that the enterprise is viable (albeit under a different name) and are currently producing CFC-based refrigerators.

18. On the basis of the sectoral distribution of the remaining CFC consumption eligible for funding provided by the Government of Pakistan, the Secretariat reviewed the three CFC phase out project proposals submitted to the 41st Meeting.

RECOMMENDATIONS

19. The Fund Secretariat recommends approval of the Pakistan country programme update, noting that approval of the country programme does not denote approval of the projects identified therein or their funding levels.

Annex I
List of projects and activities approved by the Executive Committee for Pakistan

Projects and activities	Agency	ODP funded	ODP phased out	US$ approved	US$ disbursed
Foam sector					
Phase out of CFC-11 in the manufacture of molded and rigid PUF at Razi Sons	IBRD	60.0	60.0	557,386	464,948
Project preparation to phase out CFC consumption that is not accounted for in the country programme	IBRD	-	-	28,250	28,250
Conversion to CFC-free technology in the manufacture of integral skin polyurethane foam at Synthetic Products Enterprises (Pvt) Ltd. (SPEL)	IBRD	13.6	13.6	181,506	114,895
Umbrella project: conversion to CFC-free technology in the manufacture of rigid polyurethane foam (thermoware)	IBRD	239.6	-	1,808,000	974,321
Conversion to CFC-free technology in the manufacture of polyurethane foam (flexible slabstock, flexible molded, rigid foam) at Diamond Group of Industries	IBRD	64.1	49.1	636,573	431,586
Terminal umbrella: conversion to HCFC-141b and water blown technology in the manufacture of rigid polyurethane foam (thermoware)	IBRD	105.7	-	812,357	437,775
Elimination of CFC-11 through conversion to methylene chloride/LIA technology in the manufacture of flexible polyurethane slabstock foam at United Foam Industries	IBRD	28.6	28.6	201,366	201,366
Elimination of CFC-11 through conversion to water based technology in the manufacture of flexible molded polyurethane foam at Saleem Automotive Industries Ltd.	IBRD	2.5	2.5	35,660	35,711
Conversion from CFC-11 to water-based technology in the manufacture of rigid polyurethane shoe soles at Jaguar Industries	IBRD	40.0	-	315,586	-
Project preparation in the rigid polyurethane foam	IBRD	-	-	13,560	13,560
Phase-out of CFC-11 in the manufacture of flexible PUF molded and integral skin at Master Group: (Master Enterprises Ltd., Durafoam Ltd., Khyber Plastic and Polymer Industries Ltd., Procon En)	IBRD	205.0	205.0	1,247,330	1,246,300
Refrigeration sector					
Preparation of refrigerant management plan	UNIDO	-	-	33,900	31,358
Strategy to phase-out ODS in the refrigeration industry	UNIDO	-	-	56,150	56,150
Phasing out ODS at the Chest Freezer Factory of Riaz Electric Co. Ltd.	UNIDO	48.2	-	929,975	783,631
Phasing out ODS at the refrigerator and chest freezer plants of Pak Elektron Ltd. (PEL)	UNIDO	68.0	-	1,367,633	1,154,194
Conversion of refrigerator manufacture from CFC-11 to cyclopentane foam blowing agent and CFC-12 to R-134a refrigerant at Domestic Appliances Ltd. (DAL)	IBRD	-	-	-	-

Projects and activities	Agency	ODP funded	ODP phased out	US$ approved	US$ disbursed
Phasing out ODS at the freezer factory of Hirra Farooq's (Pvt) Ltd.	UNIDO	31.2	-	589,385	463,355
Conversion to CFC-free technology in the manufacture of polyurethane foam at Kold Kraft Ltd.	IBRD	11.5	11.5	197,750	191,782
Conversion to CFC-free technology in the manufacture of polyurethane foam (domestic refrigeration) at Cool Industries Ltd. (Waves)	IBRD	117.6	-	951,178	-
Conversion to CFC-free technology in the manufacture of polyurethane foam at Singer Pakistan Ltd.	IBRD	17.8	-	232,659	194,274
Elimination of CFC-11 and CFC-12 by converting to HCFC-141b and HFC-134a in the manufacture of commercial refrigeration equipment at Dawlance P. Ltd.	IBRD	-	-	31,063	-
Elimination of CFC-11 and CFC-12 converting to HCFC-141b and HFC-134a in the manufacture of refrigeration equipment at United Refrigeration Industries Ltd.	IBRD	-	-	29,758	-
Preparation of projects in the foam flexible sub-sector	IBRD	-	-	10,170	10,170
Project preparation in the refrigeration sector (railway)	IBRD	-	-	18,080	18,080
Conversion from CFC-11 to HCFC-141b and from CFC-12 to HFC-134a technology in the manufacture of commercial refrigeration equipment at Pakistan Air-conditioning Engineering Co. P. Ltd., (PAECO)	IBRD	19.7	-	199,650	-
Conversion from CFC-11 to HCFC-141b and from CFC-12 to HFC-134a technology in the manufacture of commercial refrigeration equipment at Mumtaz Engineers	IBRD	13.9	-	231,352	-
Replacement of refrigerant CFC-12 with HFC-134a and foam blowing agent CFC-11 with HCFC-141b in the production of domestic refrigerators at Ideal Appliances, Ltd.	UNIDO	12.9	-	195,604	42,604
Preparation of a phase-out plan in the refrigeration sector (CFC manufacturing)	UNIDO	-	-	21,500	-
Elimination of CFC-11 and CFC-12 by converting to HCFC-141b and HFC134a in the manufacture of commercial refrigeration equipment at Shadman Electronic Industries P. Ltd.	IBRD	15.5	15.5	267,738	180,517
Phase-out of CFC-11 and CFC-12 by conversion to HCFC-141b and HFC-134a in the manufacture of domestic refrigeration equipment at Refrigerators Manufacturing Company Pakistan Ltd.	IBRD	-	-	(0)	-
Solvent sector					
Conversion of cleaning installations from carbon tetrachloride (CTC) and methyl chloroform (MCF) to tetrachloroethylene (PER) and water in	UNIDO	45.6	-	268,677	-

Projects and activities	Agency	ODP funded	ODP phased out	US$ approved	US$ disbursed
combination with partial process modification at Hirra Farooq Ltd., Lahore					
Conversion of ODS coating processes from CFC-113 to trichloroethylene and IPA at Treet Corporation Ltd., Hyderabad	UNIDO	18.9	18.9	358,737	358,738
Conversion of ODS cleaning and coating processes from CFC-113 to trichloroethylene and IPA at Treet Corporation Ltd., Lahore	UNIDO	40.7	40.7	576,483	576,163
Project preparation for 4 projects in the solvent (CTC) sector	UNIDO	-	-	33,900	11,233
Preparation of two projects in the solvents sector	UNIDO	-	-	22,600	10,377
Preparation of investment projects in the solvents sector (CTC/TCA)	UNIDO	-	-	26,875	-
Conversion of cleaning installations from carbon tetrachloride (CTC), methyl chloroform (MCF) and CFC-113 to tetrachloroethylene (PER) and water in combination with process modification at Breeze Frost Industries Ltd., Lahore	UNIDO	33.2	-	303,310	-
Conversion of cleaning installations from carbon tetrachloride to tetrachloroethylene at Riaz Electric Ltd., Lahore	UNIDO	10.0	-	137,948	-
Other (phase out) sectors					
Preparation of a phase-out plan in the fumigants sector		-	-	32,250	-
Preparation of a demonstration project (tobacco, tomatoes, cucurbits)	UNIDO	-	-	10,021	10,021
Project preparation for a halon sector phase-out plan	UNIDO	-	-	23,650	-
Conversion of carbon tetrachloride as process solvent to 1,2-dichloroethane at Himont Chemicals Ltd.	UNIDO	80.0	-	548,842	3,689
Several sector					
Assistance for the country programme update	IBRD	-	-	50,850	11,300
Preparation of investment projects (1995)	IBRD	-	-	143,009	143,009
Renewal of the institutional strengthening project (phase II)	UNDP	-	-	195,113	41,426
Preparation of projects in the foam and refrigeration sectors	IBRD	-	-	74,580	74,580
Project preparation in the foam and refrigeration sectors	IBRD	-	-	71,190	71,190
Project preparation	IBRD	-	-	113,000	113,000
Institutional strengthening under the Multilateral Fund for the Implementation of the Montreal Protocol	UNDP	-	-	288,103	288,103
Preparation of investment projects (1994)	IBRD	-	-	100,068	94,320
Project identification and preparation (1993)	IBRD	-	-	8,956	8,956
Country programme preparation	UNEP	-	-	67,800	67,800
Project preparation in the foam and refrigeration sectors	IBRD	-	-	50,850	50,850
Total		**1,343.8**	**445.4**	**14,707,931**	**9,009,583**

EXECUTIVE SUMMARY

Pakistan ratified the Montreal Protocol in 1992. A country programme for Pakistan was first prepared in 1996 based on 1995 ozone depleting substances (ODS) consumption which was discussed and reviewed in a national stakeholders' workshop organized by the Ministry of Environment in July 1996. This country programme was approved by the Multilateral Fund (MLF) Executive Committee at its 20th Meeting in October 1996. Best efforts were made at that time to portray ODS consumption in the different sectors. During project implementation, it was revealed that due to incomplete data some companies using ODS were not identified and that some sub-sectors consuming substantial amount of ODS were possibly missed out. In addition, over the last seven years, a few establishments were closed while others quickly took over the market share which changed the characteristics of the market. There was also some variation in ODS consumption data reported by the National Ozone Unit (NOU) in recent years for Art. 7 reporting under the MP and CP reporting to the MLF. This all resulted in the necessity to update the Country Programme for phasing out the ODS.

Pakistan attaches great importance to the implementation of the Montreal Protocol and therefore, a separate cell was created under the Ministry of Environment (MoE) in 1996. The NOU or Ozone Cell formulates policies and monitors the ODS consumption of CFC's in the country. Pakistan has taken several proactive steps to reduce consumption of CFC's in the country. An import authorization system was introduced in 1998 and import quotas were then subsequently allocated in 1999 through the Ministry of Commerce. A National ODS phase out policy was approved in November 2000. Under this policy the import of CFC's was further restricted by 10% in July 2002 and 15% in July 2003.This import will be further reduced by another 25% in July 2004 thus effectively meeting the 50% reduction target six months ahead of the Montreal Protocol schedule. Key achievements of the Ozone Cell, Pakistan in phasing out the ODS are at Annex-V.

Despite large adjustment costs, the industry in Pakistan has generally been open to the conversion to the use of non-ODS substances. The Government policy has also helped tremendously to induce compliance as far as it was possible, given the difficult economic and industrial situation in Pakistan during the past decade or so. The Government policy has resulted in higher prices and tighter supply of CFC which prompted the recent acceleration of enterprise conversions under the Multilateral Fund (MLF) for the Implementation of the Montreal Protocol. UNIDO and IBRD have been actively involved as implementing agencies in the country within the MLF framework with a total of 25 projects, some of which are already completed or are at the final stages of implementation.

The foam sector has almost converted to non-CFC production or is in advanced stages of phasing out CFCs. The refrigeration sector, however, was not prompt in implementation. An average of 400,000 CFC-based units are being produced annually by this sector and this has added a huge quantity of CFC-based units to the servicing sector.

The total consumption of CFCs at present is slightly less than baseline figures primarily because of the foam sector's conversion efforts. Conversely, the consumption of carbon tetrachloride (CTC) has virtually remained unchanged as its persistence was underestimated and MLF projects were prepared and funded in a limited quantity. The consumption of another ODS that has remained unchanged is halon. Halon was not targeted by the country programme, thus no halon projects were prepared.

Assuming that ongoing projects are completed as planned and pipeline projects are approved and implemented, Pakistan should meet the 50% reduction requirements of the Montreal Protocol in 2005 for Annex A, Group I chemicals (CFC). The 2002 freeze level for halon was slightly surpassed, however, the Ozone Cell, Ministry of Environment, in consultation with the Ministry of Commerce is currently

considering ways to complement its existing halon policy in order to ensure that virgin import levels remain aligned to the MP reduction schedule. Although initially it appeared through Art. 7 data that Pakistan would not meet the first methyl bromide reduction target in 2005, it was determined that the past reported consumption of methyl bromide was in fact solely for quarantine and preshipment – meaning that Pakistan is not at risk of non-compliance in 2005 if consumption trends continue.

Pakistan has created the regulatory framework required to put into place further controls on ODS consumption. Pakistan, however, need financial assistance to quickly convince the ODS users and to build capacity to ensure continuity in overall ODS phaseout efforts, develop and implement sector-specific policies, and enforce existing and future control measures. Pakistan is thus requesting assistance from the MLF which will allow it to regain control of consumption for meeting pressing Montreal Protocol targets while guaranteeing continued assistance in investment and non-investment activities up through 2009.

The Government of Pakistan recognizes that there is limited time for phasing out ODS in order to meet its upcoming MP compliance targets and is thus submitting its request separately for financial assistance in several sectors in parallel with the submission of this country programme update to the 41st Executive Committee.

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GOVERNMENT OF PAKISTAN
Ministry of Environment

Islamabad, the 20th November 2003

Subject : **Projects for 41st Ex-Com Meeting**

Dear Mr. Hetherington,

In the context of the submission of the Country Program Update, the Government of Pakistan has decided to prioritize CFC phase out in the remaining manufacturing enterprises while simultaneously initiate activities in the servicing sector.

The Government of Pakistan has opted for Option-I at a level of 503.14 MT (473 MT plus 30 MT, the amount of eligible consumption for cancelled project.)

The Government of Pakistan would therefore, request the Secretariat of the Multilateral Fund to distribute the balance/eligible consumption of CFC as follows:-

Foam	106.9 MT
Refrigeration	181.25 MT

The RMP would therefore, be estimated at between 189.25 to 219.85 MT contingent on the decision of the 30 MT from a cancelled project submitted since the Option-I was established. Any ODP reduction made as a result of subsequent project review/cancellation of the Foam and Refrigeration projects may also be reallocated to the servicing sector/RMP proposal.

Best Regards

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