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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Fiftieth Meeting
New Delhi, 6-10 November 2006

PROJECT PROPOSAL: BRAZIL

This document consists of the comments and recommendation of the Fund Secretariat on the following project proposal:

Phase-out

- National CFC phase-out plan (fifth tranche) Germany and UNDP

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**PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS
BRAZIL**

PROJECT TITLE**BILATERAL/IMPLEMENTING AGENCY**

National CFC phase-out plan (fifth tranche)	Germany and UNDP
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SUB-PROJECT TITLES

(a) Technical assistance for MDI transition strategy	UNDP
(b) MDI technical assistance/investment projects	UNDP
(c) Investment projects – CFC-113 solvents	UNDP
(d) Investment projects – CFC-12 sterilants	UNDP
(e) Investment projects – foam manufacturing	UNDP
(f) Investment projects – commercial refrigeration manufacturing	UNDP
(g) Investment project – MAC CFC-12 R & R project	UNDP
(h) Investment project – industrial refrigeration and central air-conditioning R & R project	UNDP
(i) Domestic & commercial refrigeration service sector: technician training project	Germany
(j) Domestic & commercial refrigeration service sector: CFC-12 recovery project	UNDP
(k) Domestic & commercial refrigeration service sector: regional CFC-12 recycle/reclaim project	UNDP
(l) Customs training	Germany
(m) Project implementation & monitoring unit	UNDP

NATIONAL CO-ORDINATING AGENCY:	CONAMA
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LATEST REPORTED CONSUMPTION DATA FOR ODS ADDRESSED IN PROJECT**A: ARTICLE-7 DATA (ODP TONNES, 2005, AS OF SEPTEMBER 2006)**

Annex A, Group I, CFC	967.18		
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B: COUNTRY PROGRAMME SECTORAL DATA (ODP TONNES, 2005, AS OF SEPTEMBER 2006)

ODS	Aerosol	Foam	Ref.	ODS	Solvents	Process agent	Fumigant
CFC	No sectoral data submitted						

CFC consumption remaining eligible for funding (ODP tonnes)	0
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CURRENT YEAR BUSINESS PLAN: Total funding US \$1,282,000: total phase-out 302.6ODP tonnes.

PROJECT DATA		2002	2003	2004	2005	2006	2007	2008	2009	2010	Total
CFC (ODP tonnes)	Montreal Protocol limits		10,521	10,521	5,261	5,261	1,578	1,578	1,578	0	
	Annual consumption limit	8,280	6,967	5,020	3,070	2,050	1,000	424	74	0	
	Annual phase-out from ongoing projects	745	313	1,210	1,207	0	0	0	0	0	3,475
	Annual phase-out newly addressed	251	1,000	737	743	1,020	1,050	576	350	74	5,801
	Annual unfunded phase-out	0	0	0	0	0	0	0	0	0	0
TOTAL ODS CONSUMPTION TO BE PHASED OUT		996	1,313	1,947	1,950	1,020	1,050	576	350	74	9,276
Total ODS consumption to be phased-in (HCFCs)		0	0	0	0	0	0	0	0	0	0
Final project costs (US \$):											
Funding for UNDP		7,860,000	5,720,000	0	3,970,000	2,856,400	1,190,000	870,000	250,000	100,000	22,816,400
Funding for Germany		1,640,000	700,000	0	0	1,543,600	0	0	0	0	3,883,600
Total project funding		9,500,000	6,420,000	0	3,970,000	4,400,000	1,190,000	870,000	250,000	100,000	26,700,000
Final support costs (US \$):											
Support cost for UNDP		705,400	500,000	0	342,500	242,276	92,300	63,500	12,500	5,000	1,963,278
Support cost for Germany		147,600	63,000	0	0	138,924	0	0	0	0	349,524
Total support costs		853,000	563,000	0	342,500	381,200	92,300	63,500	12,500	5,000	2,313,000
TOTAL COST TO MULTILATERAL FUND (US \$)		10,353,000	6,983,000	0	4,312,500	4,781,200	1,282,300	933,500	262,500	105,000	29,013,000
Final Project cost-effectiveness (US \$/kg)											4.60

FUNDING REQUEST: Approval of funding for the fifth tranche funding (2007) as indicated above.

SECRETARIAT'S RECOMMENDATION	Blanket approval
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PROJECT DESCRIPTION

1. On behalf of Government of Brazil, UNDP has submitted a request, for consideration by the 50th Executive Committee, for funding of the fifth phase of the national CFC phase-out plan (NCP) at a cost of US \$1,190,000 and US \$92,300 in support costs. The NCP for Brazil was approved in July 2002 at the 37th Meeting of Executive Committee, at a total level of funding of US \$26.7 million. With the support of this plan, the Government of Brazil intends to achieve complete phase out of its CFC consumption by 2010, starting at a consumption level of 8,280 ODP tonnes in 2002.

Background

2. The plan is being implemented with the assistance of UNDP as lead implementing agency and the Government of Germany as co-operating agency for the service technician and customs officer training programmes component. So far, requests for four tranches have been approved.

3. The documentation submitted by UNDP to the 50th Meeting, on behalf of the Government of Brazil, consists of:

- (a) A comparison of achievements versus performance indicators for 2005, such as consumption, work plan targets etc.;
- (b) An independent verification report regarding 2005 consumption data;
- (c) Report on the progress achieved in the first seven months of the fourth phase of the implementation work plan (2006); and
- (d) Fifth phase of the implementation of the work plan (2007) and related funding request.

Verification

4. UNDP submitted a report on the verification of CFC consumption of Brazil in 2005 and of the implementation of the activities under the national phase-out plan. The verification confirmed that Brazil consumed a total of 967.31 ODP tonnes of CFCs in 2005, as compared to the maximum allowable consumption under the agreement of 3,070 ODP tonnes for the same year.

Status

5. The plan covers activities in multiple sub-sectors and activities. An overview of the current status is provided in the following table:

ACTIVITY / SECTOR	OVERVIEW
CFC recovery	Close co-ordination with training efforts (GTZ-implemented) has been achieved. 562 CFC-12 recovery machines have been distributed to 70 companies in 26 cities in São Paulo State. Positive feedback (figures for recovered CFC-12) has been received. Preparation for the next step was carried out in five states. A Technical Cooperation Agreement was signed for end-of-life recovery of CFC-12 in approximately 14,000 household refrigerators.
Foam manufacturing sector	The conversion of 71 enterprises was completed in the integral skin, rigid PU and flexible molded PU sub-sectors. From the 32 polyurethane flexible foam projects, 12 chose methylene chloride (MC) and 22 water-based technologies as CFC replacement. The MC projects are technically and financially completed and awaiting signature of Protocols and preparation of reports, which will be completed in 2007. The projects with water-based technology had their technical problems resolved in 2005. However, there are some issues with the procurement of related equipment, trials and training. Technical completion can be expected in the beginning of 2007 and formal completion by mid-2007. No additional resources were allocated for this sector in 2006.
Commercial refrigeration manufacturing sector	As there were no companies that met the Government's criteria, the Government decided to transfer the funds to the recovery component. Consequently, no activities were carried out in this sector.
MAC servicing sector	22 training sessions took place with the participation of 359 technicians from pre-selected companies in the sector. 242 R&R machines were distributed. As an example, in July 2006 (latest report), 122 out of 242 companies reported a total of 1.17 tonnes of CFC-12 recycled, as compared to 2.65 tonnes of new CFC refrigerant used; that indicates that about 30% of the refrigerant consumption can be supplied through recovery in that sector. Training and distribution work is ongoing.
Industrial refrigeration and central air-conditioning servicing sector – chillers	This activity has been re-focused and is being co-ordinated with the planned activities under the project “application of energy-efficient CFC-free technologies for replacement of CFC-based chillers”, one chiller demonstration project approved by the 47 th Meeting. The activities funded by this plan are presently not advancing but awaiting the commencement of the chiller replacement project.
CFC reclaim centre	The number of reclaim centres to be established has been modified from 10 to 5. One centre is operating since 2005 and reported a total of 0.716 tonnes of CFC-12 recovered in 2005 with less than 12 months operation. For the first 6 months of 2006, a further 0.456 tonnes of CFC-12 have been recovered. A second operator has been identified and delivery of equipment expected during 2007. The location of the two remaining reclaim centres has been defined.
MDI transition strategy	Control on imports and used CFCs in this sector through the Technical Federal Register has been established. First estimates of quantities have been obtained, and a detailed analysis of the MDI sector and its needs is underway

ACTIVITY / SECTOR	OVERVIEW
	as a result of consultation with health sector stakeholders. The work is being carried out by the Ministry of Health.
CFC-113 solvents	A survey showed that industries have adopted alternative, non CFC-based solvents in dry-cleaning, metal degreasing, formulations as well as in cleaning electro-electronics. According to the Foreign Trade System, there has been no consumption of CFC-113 as solvent in Brazil since 2004. The work is not yet concluded due to investigations into the potential use of solvents as process agent.
CFC-12 sterilants	According to the research carried out, there seems to be no CFC-12 consumption as sterilants since 2004. Final clarification will be achieved through a survey, to be carried out in a number of states.
Refrigeration service technician training *	7,000 technicians had been trained by the end of July 2006. In total, 27 mobile training units are available, each having a capacity to train 500 technicians per year. Production of 8,000 freely books with photo-training on good practices for mechanics in the commercial and domestic refrigeration sector, 7,000 material kits on safety in gas recovery, as well as 6,000 posters for publicity on good practice training has been completed.
Customs officer training*	In the previous tranche 55 customs officers/instructors as well 9 staff members from the national environmental protection agency (IBAMA) that issues import licenses were trained. Since then, the activity was limited to support in the development, revision and update of the Handbook for ODS import and export control.

* Implemented by Government of Germany; all other activities implemented by UNDP

6. The first 42 months of implementation, covered in the report, show a satisfactory performance. Evidently, the tranches have been front loaded. Disbursements of 50% or more of the funding approved have been achieved in half of the activities. The remaining activities have specific, structural issues leading to a slow disbursement, and are not likely to lead to delays in the phase-out. The plan met most of its objectives. The following comparison of expenditures relates to the sub-sectors and activities mentioned in the previous table, and provides valuable insights into the progress on implementation.

Activity/Sector	Total budget 1st to 4th tranche	Expenditures (until 7.06)	
		Amount	Share of budget
Project Implementation & Monitoring Unit	\$1,955,000	\$1,154,770	59%
CFC-12 Recovery Project	\$6,424,600	\$2,116,374	33%
Regional CFC-12 Reclaim Project	\$1,936,800	\$1,011,131	52%
MAC CFC-12 R&R Project	\$2,006,400	\$1,832,102	91%
Chillers R&R Project	\$1,063,600	\$55,869	5%
Foam Manufacturing Project	\$4,200,000	\$4,192,315	100%
Comm. Refrigeration (CRM) Manufacturing	\$1,370,000	\$52,080	4%
MDIs Investment Projects	\$450,000	\$5,136	1%
Investment Projects – CFC-113 Solvents	\$500,000	\$7,658	2%
Investment Projects – CFC-12 Sterilants	\$500,000	\$1,116	0%
Technician Training Project	\$3,742,400	\$1,977,101	53%
Custom Training	\$141,200	\$130,270	92%
Total	\$24,290,000	\$12,535,922	52%

7. A number of new activities were added by UNDP to the 2007 implementation plan, resulting in funding being reallocated between the different activities. The new activities include the establishment of recycling centers at stores that trade refrigeration components; two projects for replacement of existing CFC-refrigeration equipment by more energy efficient, non-CFC equipment in co-operation with energy suppliers; dissemination of technologies information; training and capacity-building in different regions; and the development of technical norms for recovery, recycling and reclamation. The amounts reallocated are set out in the table below.

Activity/Sector	Budget reallocation	Funding from 5th tranche	Revised budget 1-5th tranche	Remaining expenditures
<i>Existing / long term planned activities</i>				
Project Implementation & Monitoring Unit	\$300,000		\$2,255,000	\$1,100,230
CFC-12 Recovery Project	-\$1,152,274		\$5,272,326	\$3,155,952
Regional CFC-12 Reclaim Project	\$0		\$1,936,800	\$925,669
MAC CFC-12 R&R Project	\$100,000		\$2,106,400	\$274,298
Chillers R&R Project	-\$288,406		\$775,194	\$719,325
Foam Manufacturing Project	\$0		\$4,200,000	\$7,685
Comm. Refrigeration (CRM) Manufacturing	-\$1,317,920		\$52,080	\$0
MDIs Investment Projects	\$0	\$990,000	\$1,440,000	\$1,434,864
Investment Projects – CFC-113 Solvents	\$0		\$500,000	\$492,342
Investment Projects – CFC-12 Sterilants	\$0		\$500,000	\$498,884
Technician Training Project	\$0		\$3,742,400	\$1,765,299
Custom Training	\$0		\$141,200	\$10,930
<i>Sub-total</i>	<i>-\$2,358,600</i>	<i>\$990,000</i>	<i>\$22,921,400</i>	<i>\$10,385,478</i>
<i>Newly added activities</i>				
CFC-12 Recycling Centers Project	\$102,600		\$398,600	\$398,600
Env. Management on Comm. Refrigeration	\$870,000		\$870,000	\$870,000
Project on Energy and CFC-12 Recovery	\$850,000	\$200,000	\$1,050,000	\$1,050,000
Project to Disseminate Tech. Data	\$416,000		\$120,000	\$120,000
Project to Support the Technical Rules	\$120,000		\$120,000	\$120,000
<i>Sub-total</i>	<i>\$2,358,600</i>	<i>\$200,000</i>	<i>\$2,558,600</i>	<i>\$2,558,600</i>
Total	\$0	\$1,190,000	\$25,480,000	\$12,944,078

8. The reallocation of the budget also takes into account completed or discontinued activities. The activities relating to foam and customs training are largely completed and have exhausted the budget allocated. The remaining balance in the commercial manufacturers activity has been fully reallocated, and the activity stopped.

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

9. The proposal has been submitted for consideration at the 50th Meeting, and the Secretariat has reviewed it accordingly. The report and subsequent information provide a very transparent picture on previous progress, status and planned activities of the NCPP.

10. A number of issues were raised and clarified by UNDP and Brazil, such as clarification on expenditures and impact of recovery and recycling operations. A particular point raised was related to the fact that there were no solvent uses of CFC-113, and no import of the substance. UNDP however reported that work is not yet concluded due to further investigations into the use of solvents including CFC-113 as a process agent. UNDP replied that the national consultant had

not yet completed his research. The consultant advised that while there are no CFC-113 imports recorded in the import/export data, at the same time there is additional information in the Federal Registry System that indicates CFC-113 consumption as a process agent. UNDP and GTZ provided detailed explanations regarding all questions, and all open issues were subsequently resolved.

RECOMMENDATION

11. The Fund Secretariat recommends blanket approval of the fifth tranche of the phase-out plan with associated support costs at the funding level shown in the table below:

	Project Title	Project Funding (US\$)	Support Cost (US\$)	Implementing Agency
(a)	National CFC phase-out plan (fifth tranche)	1,190,000	92,300	UNDP