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Executive Committee of the
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Implementation of the Montreal Protocol

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REVISED WORK PROGRAMME AND RELATED BUDGET

FOR THE INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT (WORLD BANK)

INTERIM MULTILATERAL FUND OF THE MONTREAL PROTOCOL

World Bank Work Program
for Investment Project Preparation and Related Studies

Introduction

1. This work program and budget for assistance to developing countries in reducing their emissions of ozone reducing substances (ODS) [1] was originally prepared for review by the Executive Committee of the Interim Multilateral Fund of the Montreal Protocol at its April 15-19, 1991, meeting in Montreal. Detailed plans and cost estimates were provided for activities proposed for support by Multilateral Fund for the remainder of 1991 (April-December, 1991). Following that meeting, and subsequent consultations with UNEP, UNDP and the Montreal Protocol Secretariat, this work program and budget has now been revised for final presentation to the Executive Committee at its next meeting during June 17-18, 1991, in Nairobi. The first several months of 1991 have thus been spent preparing, or updating and consolidating, for review with Governments, UNEP, UNDP, and the Secretariat, individual country work programs for the remainder of calendar 1991, and for fiscal year 1992, the Bank's planning and fiscal year. Support from respective Governments has been obtained in writing for many of the work programs [2]. While the budget and planned outputs presented in this executive summary are for calendar 1991, individual country programs are presented through December 1991, and FY 1992[3], serving the needs of both the Executive Committee and the Bank for planning and budgeting purposes. Indeed, for some countries in Latin America and the Caribbean, planning for Protocol implementation is sufficiently advanced to enable projections to be made of three year work plans, budgets and outputs, hence the CY 1991 budgets and work plans are presented in the context of these longer planning periods.

2. While work programs are presented here only for those countries which have ratified the Montreal Protocol, work programs have been prepared for certain countries which are expected to ratify in the course of the next year. Work programs for five "non-ratified" countries were prepared using the Bank's own resources and are being held in abeyance for presentation to the Executive Committee when the countries concerned become eligible for Interim Multilateral Fund support.

3. During the remainder of CY 1991, as missions are mounted country by country, a more accurate appraisal will be possible of the time required for proposed studies, and preparation and appraisal activities for investment operations for calendar 1992 and 1993. In effect, the absorptive capacity of our clients, and the capacity of the Bank to deliver planned assistance will become apparent during CY 1991, enabling more precise work planning and budget estimates to be prepared for the Executive Committee towards the end of the second half of CY 1991 for the remainder of the three-year period.

Program Scope

4. The proposed work program envisages activities in 15 countries during CY 1991. Though beyond the time frame of this work program and budget, it is noteworthy that an additional two country programs are planned to start in CY 1992 (Argentina and Guatemala). Work programs are presented for each country for which Bank supervised

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[1] The use of the term "ozone depleting substance", in this context, should be understood to refer only to those ozone depleting substances specifically controlled by the Protocol.

[2] Governments were invited to confirm in writing their support for programs that had been prepared by the Bank in consultation with them. Many have already confirmed. The relevant documentation is available on request.

[3] The World Bank fiscal year begins on July 1 and ends on June 30. Thus, FY 1992 begins on July 1, 1991 and ends on June 30, 1992.

assistance is proposed. Although the level of assistance proposed varies greatly between countries, all countries have had or anticipate receiving the benefits of initial reconnaissance missions leading frequently to Country Program Framework Papers (CFP's), which help lay the foundation for comprehensive country programs. Due to the Gulf War, for several countries in the Middle East and North Africa, it has not been possible during the first part of CY 1991 to review proposed work programs, face to face. In addition to the work program preparation costs through May 1991 of US$500,000, supported by an advance of that amount from the Multilateral Fund, support required for the proposed work programs is estimated to be US$1.88 million in CY 1991, of which US$.95 million is for policy framework and technical reviews, including reconnaissance studies, CFP's, and development of country programs, US$.61 million is for project preparation activities and project appraisals, and US$.32 million is for operations coordination and related policy work, including financial and legal administration (Tables 2 and 3 and para. 8).

Country Eligibility

5. All countries for which assistance is requested from the Protocol Fund during CY 1991 have ratified the Protocol and have notified the Bank in writing of their desire to have the Bank provide the assistance identified.

Project Pipeline

6. The Bank's primary contribution to the implementation of the Montreal Protocol is to manage the investment project cycle, including assistance to countries in their developments which would facilitate and sustain the benefits anticipated from those investments. In the course of CY 1991, it is anticipated that a total of 11 reconnaissance studies and CFP's, and 2 pre-investment studies will be completed, leading to the appraisal of 2 projects during CY 1991.

Interagency Cooperation

7. The proposed work program has been prepared in close consultation with UNDP and UNEP, and ongoing collaboration is anticipated between the Bank and these agencies in the course of the project cycle for Montreal Protocol Fund-supported investment projects. The Bank is already working closely with UNDP in 2 reconnaissance studies and CFP's. See Table 1.

Budget Assumptions

8. The underlying assumption in the proposed CY 1991 budget is that the Bank will be reimbursed reasonable costs incurred in fulfilling its role as an implementing agency. The proposed budget does not include any costs attributable to time devoted by senior World Bank managers and related support staff and services in formalizing and overseeing the Bank's participation as an implementing agency, including their attendance at meetings of the Montreal Protocol. Reimbursement is being requested for all costs incurred in preparing, appraising and supervising investment operations of the Montreal Protocol, including overall operations coordinations functions and preparation of policy papers dedicated entirely to Protocol Fund implementation. These include direct staff and consultant costs, and all overheads, including operational line management support functions, office and communications expenses, travel and expenses. Given the substantial commitment of senior management to Montreal Protocol deliberations, the Bank will recover less than the full costs of undertaking its role as an implementing agency. See Tables 2 and 3. The budget for Montreal Protocol operations coordination, related policy analysis and review, and legal and financial administration, is US$.32 million for the period May 1-December 31st, 1991.

Financial Commitment and Disbursement Schedules

9. The Bank will make no investment project disbursements until funding for the total investment project has been committed up-front. Using scheduled investment project approval dates as the benchmark dates for the timing

of required project funding commitments, a total financial commitment of US$5.0 million is now anticipated during CY 1991, as shown in Table 4.

10. Assuming that these commitments are made as anticipated, no disbursements are expected during CY 1991. In fact, the first disbursements for investment project funding will not take place until early in the following year. As a consequence, the current schedule of quarterly investment project disbursements, the first disbursements will be made in the first and second quarters of CY 1992 (or the third and fourth quarter of the Bank's FY 1992) and are estimated to total US$2.59 million. These disbursements are shown in Table 5 which has been prepared to reflect activity in the Bank's FY 1992.

TABLE 1

OTHER AGENCY PARTICIPATION

COUNTRY	UNDP	UNEP	OTHER
Bangladesh	X		
Ecuador			USEPA
Egypt	X	X	USEPA
Ghana	X	X	
Jordan	X		
Kenya	X	X	SIDA
Maylasia	X		CIDA
Mexico		X	USEPA
Nigeria	X	X	
Philippines	X		EEC
Thailand	X	X	SIDA
Trinidad/Tobago	X		
Tunisia	X	X	

TABLE 2

MONTREAL PROTOCOL INTERIM MULTILATERAL FUND

CALENDAR YEAR 1991 WORK PROGRAM AND BUDGET
(Ratified Countries)

COUNTRY	RATIFIED	TYPE c/	STUDIES BUDGET	PROJECT PREPN BUDGET	OVERALL BUDGET	NO. PROJECTS PLANNED
Bangladesh	X	A,B	$25,564	$0	$25,564	
Brazil a/	X	B,C	$0	$0	$0	
Chile	X	A,B	$121,166	$162,736	$283,902	1
Ecuador	X	A,B	$40,386	$92,031	$132,417	1
Egypt	X	C	$68,981	$95,065	$164,046	2
Ghana	X	A	$29,362	$0	$29,362	
Jordan	X	A,B	$46,513	$2,310	$48,823	
Kenya	X	A	$31,498	$0	$31,498	
Malaysia b/	X	A,B,C	$16,294	$38,289	$54,583	2
Mexico	X	B	$36,061	$68,164	$104,225	1
Nigeria	X	A	$212,935	$0	$212,935	
Philippines	X	A,B	$30,127	$0	$30,127	
Sri Lanka	X	A,B	$23,339	$0	$23,339	
Thailand b/	X	B,C	$60,060	$0	$60,060	3
Trinidad/Tob.	X	A,B	$107,561	$86,843	$194,404	1
Tunisia	X	A,B,C	$58,363	$64,748	$123,111	
Venezuela a/	X	A,B,C	$0	$0	$0	
Yugoslavia	X	B,C	$38,233	$3,500	$41,733	
Total			$946,443	$613,686	$1,560,129	

a/ Provision of $10,000 each for Brazil and Venezuela has been set aside in the central fund to allow for further discussions with the governments as explained in the country workprogram descriptions.

b/ Upper limits, preliminary field visits indicate significant bilateral/interests/resources may be available for some of these efforts.

c/ Study Types:

A - Country Wide Reconnaissance - Ozone Depleting Substance (ODS) Consumption/ Institutional Resources;

B - Country Framework Paper (CFP);

C - Phase-out Plan.

TABLE 3 GLOBAL ENVIRONMENT FACILITY - CFC WORKPLAN

REGION: GLOBAL

WORK PLAN CY91

TASKS/RESOURCES	PERSONS (#)	STAFF WEEKS	CONSULTANT DAYS	TRIPS (#)	FIELD DAYS	BUDGET ($)
STUDIES:						
Bank Staff		51		23		$220,938
Consultants						
External			645	21		$374,100
Local			237			$40,600
Travel						$133,472
Per Diem						$75,104
Other						$102,229
Subtotal Studies		51	882	44		$946,443
PREP/APPRAISALS						
Bank Staff		45		13		$196,875
Consultants						
External			252	11		$146,160
Local			754			$84,800
Travel						$68,304
Per Diem						$37,907
Other						$79,640
Subtotal Prep/Apprais		45	1006	24		$613,686
GRAND TOTAL		96	1888	67		$1,560,129

TABLE 4

INTERIM MULTILATERAL FUND

CY 91 ANTICIPATED COMMITMENT SCHEDULE

COUNTRY	QUARTER	PROJECT COST (in $ millions)
Mexico	Fourth	5.0
TOTAL		5.0

TABLE 5

INTERIM MULTILATERAL FUND

FY92 ANTICIPATED DISBURSEMENT SCHEDULE

COUNTRY	PROJECTS	TOTAL PROJECT COST at approval (in million)	APPROVAL QUARTER	QUARTER			
				FIRST	SECOND	THIRD	FOURTH
Mexico	Training	2.00	Second			0.30	0.30
	Recycling	3.00	Second			0.50	0.50
	Foam						
Tunisia	HFC-134a	0.70	Third				0.04
	Insulation						
	Training						
	Foam						
	LPG aerosol						
Egypt	Training	2.50	Third				0.15
	Recycling						
	Red. CFC-12						
Malaysia	?	4.00	Third				0.70
Thailand	Auto A/C Rec.	8.00	Fourth				
	Solvent Recyc.						
	Solvent phase-out						
Total		20.20				0.80	1.69

(?) indicates there is no basis yet for specifying.

BANGLADESH

1. Background

Bangladesh has signed and ratified the Montreal Protocol. There is no production of ODS in the country. No data is available on ODS consumption at present, however consumption is likely to be low and rising slowly.

2. Goals of the Work Program and Project Identification

To assist the Government in establishing and implementing an effective ODS phase-out program. The work plan has been discussed with both UNEP and UNDP and it has been agreed that the World Bank will take the lead in developing the program.

3. Task Descriptions

Task 1. Reconnaissance mission scheduled for mid-1991 to determine the status of the ODS program in Bangladesh.

Task 2. Reach agreement with UNDP on who will be responsible for preparation work and on the possibility of a joint UNDP/Bank exploratory mission to Bangladesh.

Task 3. Complete Country Program Framework Paper (CFP) by December, 1991.

Task 4. Complete project preparation work by June 1992.

TABLE 1

COUNTRY: BANGLADESH

WORK PLAN CY91

TASKS/RESOURCES	PERSONS (#)	STAFF WEEKS	CONSULTANT DAYS	TRIPS (#)	FIELD DAYS	BUDGET ($)
STUDIES:						
Bank Staff	1	2				$8,750
Consultants						
External	1		20	1	10	$11,600
Local						$0
Travel						$3,944
Per Diem						$1,270
Other						$0
Subtotal Studies		2	20			$25,564
PREP/APPRAISALS						
Bank Staff						$0
Consultants						
External						$0
Local						$0
Travel						$0
Per Diem						$0
Other						$0
Subtotal Prep/Apprais		0	0			$0
GRAND TOTAL		2	20			$25,564

TABLE 2. BANGLADESH

FY 92 STUDY SCHEDULE
(MONTH/YEAR)

STUDY TASKS	PREPARATORY MISSION	MAIN MISSION	DRAFT REPORT	FINAL REPORT
Reconnaissance Study		6/91		7/91
CFP		12/91		6/92

TABLE 3. BANGLADESH

FY 92 PROJECT COST & REPORT/APPROVAL SCHEDULE
(MONTH/YEAR)

PROJECT	PROJECT COST $	IEPS DATE	FEPS DATE	APPRAISAL DATE	Y.C. REV. DATE	NEGOT. DATE	APPROVAL DATE
None							

BRAZIL

1. Background

The work program for Brazil has been withdrawn due to the lack of government approval at this time. Although a work program has been proposed, the authorities were unable at the time to approve. Provision of US$10,000 is therefore now being made to allow for further discussions with the government with the intention of reporting back to the Executive Committee of the Multilateral Fund at the earliest possible date.

CHILE

1. Background

Chile acceded to the Montreal Protocol by signing the Protocol on June 14, 1988 and ratifying it on March 26, 1990. From the information available to the Bank, it appears that Chile is not a producer of Group I substances (CFC-11, CFC-12, and CFC-113), Group II substances (Halon 1201, Halon 2402, and carbon tetrachloride) or Group III substances (1,1,1-trichloroethane) as classified under the Protocol. The demand for these substances is met entirely through importation. No information is available at this time on the levels of consumption, use pattern, structure, size and technological sophistication of the ODS consuming industrial sectors. In addition, information is required on the measures, if any, taken by the Government of Chile (GOC) on the development of the policy and institutional framework within which the phase-out of Group I, II and III substances will occur. This is essential for the development of an overall strategy for phasing out these substances.

The National Environmental Commission (CONAMA) is the most appropriate institution to take the lead in this effort. CONAMA was created in 1990 to provide leadership in Chile on environmental issues, with particular emphasis on cross-sectoral impacts. The resources available to CONAMA, nevertheless, are limited. It will therefore require significant support in terms of technical assistance and additional resources to manage this effort.

The main uses of ozone depleting substances in Chile are likely to be commercial and industrial air-conditioning, automobile air-conditioning, solvent cleaning, aerosols, and fire protection. The majority of firms and organizations using ODSs are in the private sector.

The Bank has certain projects under preparation in Chile which could include a component for a CFC phase-out program. These include the Environmental Institutions Development Project, and the follow-on Environmental Management Investment Project. The schedule presented below is proposed with the critical dates for the first project in mind.

2. Goals of the Work Program and Project Identification

The overall goal of the Bank's activities over the next three years in Chile is to: (a) assist Chile in the development of a strategy for the phasing out of ODSs; (b) help strengthen Chile's institutional capability to manage ozone protection activities, in conjunction with the efforts being made to improve its current environmental management framework; and (c) support Chile in project identification, preparation and implementation. The work plan has been discussed with both UNEP and UNDP and it has been agreed that the World Bank will take the lead in developing the program.

The process will begin by preparation of a baseline reconnaissance study and Country Framework Paper (CFP). These should provide an agreed approach for the Bank and the Country to achieve the goals set forth in the Montreal Protocol. Based upon the results of these studies, the first group of possible projects (Phase I) will be identified and prepared.

3a. Task Descriptions

Task 1. Reconnaissance Mission
Schedule: May 1991

This mission will collect background information on the industry in Chile, and will complement the information on the policy and institutional framework which the Bank already has for Chile. It will be necessary to assess whether the existing framework is adequate to address the ODS phase-out. The mission will also discuss the modalities for cooperation with the National Environment Commission (CONAMA). The Mission will consist of the World Bank Task Manager for Chile, and a technical consultant. The mission will develop a position paper on the ODS phase-out effort in Chile, including terms of reference for the CFP Formulation Missions, and, as appropriate, revise the proposed work program.

Task 2. CFP Formulation and Project Identification Mission
Schedule: July 1991

The objective of the mission will be to initiate, with CONAMA, preparation of a strategy for CDS phase-out, including a definition of the technical, policy and institutional issues. In addition, it would identify projects which could be supported under the Protocol. Technical consultants would assess the levels of consumption, use patterns, structure, size and technological sophistication of the ODS consuming industrial sectors. The mission would work with CONAMA and associated Government agencies, as well as with relevant industry, consumer and NGO groups. The mission would agree with CONAMA on the strategy and structure of the CFP paper, and on the respective contributions from each of these groups to the paper. A comprehensive baseline reconnaissance study of ODS, and a draft CFP would be completed by October, 1991.

Task 3. Final CFP/Project Preparation Mission (Phase I)
Schedule: October 1991

The mission would discuss the draft CFP to the Government and based on these discussions the document would be finalized. It is expected that this would include agreement of a program to strengthen Chile's policy framework and management capabilities. Resources to carry out this program could be included under the Environmental Institutions Development Project. It is expected that appraisal of this Mission would coincide with the Appraisal Mission for the Bank project.

The mission would also include technical experts who would prepare potential projects which had been identified by the earlier mission.

Task 4. Project Preparation Mission (Phase I)
Schedule: May 1992

The mission will complete preparation activities.

Task 5. Appraisal Mission (Phase I)
Schedule: August 1992

Task 6. Project Supervision
Schedule: March 1993

Supervision will focus on initial implementation activities for each of the approved projects.

Task 7. Project Supervision/Project Identification (Phase II)
Schedule: September 1993

Based on the experience gained from the first phase of projects, additional projects may be identified and project preparation initiated.

3b. Project Descriptions

Individual projects would be identified during the process of development of the CFP.

TABLE 1

COUNTRY: CHILE

WORK PLAN CY91

TASKS/RESOURCES	PERSONS (#)	STAFF WEEKS	CONSULTANT DAYS	TRIPS (#)	FIELD DAYS	BUDGET ($)
STUDIES:						
Bank Staff	1	5		2	21	$21,875
Consultants						
External	3		80	4	56	$46,400
Local	1		48			$12,000
Travel						$18,956
Per Diem						$11,935
Other						$10,000
Subtotal Studies		5	128			$121,166
PREP/APPRAISALS						
Bank Staff	1	8		2	28	$35,000
Consultants						
External	2		112	4	56	$64,960
Local	1		84			$21,000
Travel						$18,956
Per Diem						$13,020
Other						$9,800
Subtotal Prep/Apprais		8	196			$162,736
GRAND TOTAL		13	324			$283,902

TABLE 2. CHILE

FY 92 STUDY SCHEDULE
(MONTH/YEAR)

STUDY TASKS	PREPARATORY MISSION	MAIN MISSION	DRAFT REPORT	FINAL REPORT
1. CPF	05/91	07/91	10/91	01/91
2. Pre-investment Studies				
3. Others (Specified)				

TABLE 3. CHILE

FY 92 PROJECT COST & REPORT/APPROVAL SCHEDULE
(MONTH/YEAR)

PROJECT	PROJECT COST $	IEPS DATE	FEPS DATE	APPRAISAL DATE	Y.C. REV. DATE	NEGOT. DATE	APPROVAL DATE
		12/91	07/92	08/92	11/92	12/92	02/93

ECUADOR

1. Background

Ecuador acceded to the Montreal Protocol on 30 April 1990. Ecuador is not a producer of Group I substances (CFC-11, CFC-12, and CFC-113), Group II substances (Halon 1201, Halon 2402, Halon 2402, and carbon tetrachloride) or Group III substances (1,1,1-trichloroethane) as classified under the Protocol[1]/. The demand for these substances is met entirely through importation. No information is available at this time on the levels of consumption, use pattern, structure, size, and technological sophistication of the ODS-consuming industrial sectors. In addition, information is required on the measures, if any, taken by the Government of Ecuador on the development of the policy and institutional framework within which the phase-out of Group I, II, and III substances will occur. This is essential for the development of an overall strategy for phasing out these substances.

2. Goals of the Work Program and Project Identification

The Bank is of the view that the Government of Ecuador (GOE) would be most willing to quickly implement projects designed to phase-out the use of ODSs. In addition, the GOE is currently preparing national environmental legislation that the Bank believes can be amended to include provisions mandating the phaseout of ODSs as required under the recent London Revisions to the Montreal Protocol. The resources available to the GOE, however, are limited. Consequently, the GOE will require significant support in terms of technical assistance and additional resources to manage a phase-out effort.

The main uses of ozone depleting substances in Ecuador are likely to be commercial and industrial air-conditioning, automobile air-conditioning, solvent cleaning, aerosols, and fire protection. The firms using ODSs are all in the private sector.

The Bank has certain projects under preparation in Ecuador to which a CFC phase-out program could be added. The schedule presented below is proposed keeping in mind the important dates for these projects. In mid-May, the Bank will mount a joint mission with USEPA and share responsibility for a joint diagnostic study. USEPA will prepare the technical portion; the Bank will draft the legal, policy and institutional portion. The study should be completed by mid-summer.

Because of the commitment of the GOE to phasing out ODSs, this schedule assumes the rapid implementation of projects to achieve this goal. Specifically, it combines the preparation of a baseline reconnaissance study, the CFP preparation activities, and the project identification activities. The Bank also recommends that a local coordinator be hired to manage the project implementation activities for a period of three years. The work plan has been discussed with both UNEP and UNDP and it has been agreed that the World Bank will take the lead in developing the program.

3a. Task Descriptions

Task 1. Reconnaissance Mission
Schedule: March 1991

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[1]/ These are the ODSs widely used in each of the Groups and of most concern. There are a number of other materials included in the Protocol which are used in extremely small quantities or not at all in the industrialized world. It is highly unlikely that Ecuador will be a consumer of these lesser known ODSs.

This mission will collect baseline information on the industry in Ecuador. It will make preliminary contact with industry to obtain their assistance in data collection and to generate interest in technology demonstration workshops. The technical consultant will work with industry to define the information needs for project preparation for each of the potential projects that could be implemented to reduce ODS use. In addition, preliminary contacts will be made with the GOE to assist in (1) developing legislation to phase out the use of ODSs, and (2) quickly identifying and implementing projects to achieve the phaseout goals. The services of a local consultant will be essential to ensure a thorough effort in fulfilling the information needs for the project. The Mission will consist of the World Bank Task Manager and a technical consultant.

Task 2. Baseline Study - CFP Mission - Project Identification
Schedule: May 1991

This joint Mission with USEPA will follow-up on the activities of the previous trip. It will be led by the Bank Task Manager and will include a technical consultant and an industrial economist. The industrial economist will ensure that the policy framework developed in the CFP is clearly defined, consistent with LATEN guidelines, and acceptable to the GOC. The mission will work with industry to assess the level of ODS consumption, use pattern, structure, size, and technological sophistication of the ODS consuming industries. The Mission will also discuss overall policy, incentives, institutional, regulatory, and legislative issues with consumer groups, NGOs, environmental groups and other non-government groups. The consultant will discuss project specific details with relevant industry groups, and review the industry's progress in fulfilling the information needed to prepare each of the identified projects. Finally, the Mission will evaluate the possibility of using the existing policy and institutional framework to implement the Protocol, and develop a tentative strategy to phase-out ODS use in Ecuador. The results of this Mission will be a completed baseline and CFP study, and identification of projects to be implemented to phase out ODS use in Ecuador.

Task 3. Project Preparation Mission I
Schedule: October 1991

This Mission will finalize the detailed projects and discuss them with GOE and the industries involved. Discussions with GOE on establishing or fine-tuning the policy and institutional framework will also take place. If any of the projects are likely to involve procurement of equipment then guidelines for such an activity will also have to be formulated in consultation with GOE. Each of the projects will include seminars, workshops, training, and technology demonstration activities to ensure rapid replication of the project throughout Ecuador. Finally, a local project coordinator will be hired half time for a period of three years to oversee the implementation of the projects in Ecuador.

Task 4. Board Approval
Schedule: February 1992

Task 5. Project Implementation Mission
Schedule: May 1992

For each of the projects approved by the Board, the initial implementation activities will be launched by the Bank.

Task 6. Project Monitoring Mission
Schedule: November 1992

To assess progress in reducing the use of ODSs, the Bank will monitor the projects.

Task 7. Project Preparation Mission II
Schedule: May 1993

This Mission will be aimed at defining additional projects to reduce the use of ODSs. Given the rapid technological developments in ODS substitute technologies there is a high probability that other projects could be developed for implementation. This Mission will define and initiate the process for additional project development. The technical consultant will work with industry to define the information needs for project preparation.

Task 8. Project Preparation Mission III
Schedule: August 1993

The project preparation phase will be advanced through discussions with industry groups on their progress in fulfilling the information needs distributed to them in the previous Mission. The Mission will also continue the required monitoring efforts.

3b. Project Descriptions

If additional project opportunities to reduce ODS use are discovered, the Bank will prepare detailed project proposals to present to the Board. This work program assumes that in the first two years of the Protocol Fund, the technologies that are commercially available in industrialized countries to reduce ODS use will be implemented in Ecuador.

TABLE 1

COUNTRY: ECUADOR

WORK PLAN CY91

TASKS/RESOURCES	PERSONS (#)	STAFF WEEKS	CONSULTANT DAYS	TRIPS (#)	FIELD DAYS	BUDGET ($)
STUDIES:						
Bank Staff	1	2		1	6	$8,750
Consultants						
External	2		36	1	26	$20,880
Local	1		18			$900
Travel						$2,818
Per Diem						$2,848
Other						$4,190
Subtotal Studies		2	54			$40,386
PREP/APPRAISALS						
Bank Staff	2	5		1	9	$21,875
Consultants						
External	2		18	1	9	$10,440
Local	1		528			$26,400
Travel						$2,818
Per Diem						$1,602
Other						$28,896
Subtotal Prep/Apprais		5	546			$92,031
GRAND TOTAL		7	600			$132,417

TABLE 2. ECUADOR

FY 92 STUDY SCHEDULE
(MONTH/YEAR)

STUDY TASKS	PREPARATORY MISSION	MAIN MISSION	DRAFT REPORT	FINAL REPORT
1. CPF		05/91	05/91	07/91
2. Pre-investment Studies				
3. Others (Specified)				

TABLE 3. ECUADOR

FY 92 PROJECT COST & REPORT/APPROVAL SCHEDULE
(MONTH/YEAR)

PROJECT	PROJECT COST $	IEPS DATE	FEPS DATE	APPRAISAL DATE	Y.C. REV. DATE	NEGOT. DATE	APPROVAL DATE
		05/91	08/91	10/91	12/91	01/92	02/92

EGYPT

1. Background

Egypt has played a leading role over the last ten years in establishing an international framework for protecting the ozone layer. Egypt was the seventh country to sign and ratify the Montreal Protocol on August 2, 1988. Since that time, Egypt has played a leading role in the meetings and the discussion of the Parties to the Protocol. Dr. El Mohamadi Eid, chairman of the Egyptian Environment Affairs Agency (EEAA) was formerly one of the 14 members of the Executive Committee of the Protocol.

Egypt is a net importer of CFCs. In 1989, EEAA, in collaboration with the U.S. Environment Protection Agency (EPA), prepared the first case study on the "Costs to Egypt of Protecting the Stratospheric Ozone Layer". In this study, it is stated that in 1989 Egypt consumed a total of 2375 metric tons (MT) of CFCs and that the estimated cost to Egypt to phase out CFCs ranges from US$30.5 to 37.7 million. The study also identified several reduction measures that can be implemented as demonstration projects. Seven projects were identified for a total cost of US$4.0 million.

In November 1990, at the invitation of the Egyptian Government, the Bank conducted a reconnaissance study to revalidate the CFC data by years and end-uses and re-analyze the seven projects in terms of the advantages and disadvantages of the available technology, the estimated CFC savings and their cost and time to implement.

CFC consumption in Egypt in 1990 is 1830 MT, a decrease of 545 MT from 1989. The decrease is principally due to lower CFC use in the aerosol industry resulting from the ban by the Ministry of Industry and a decrease in production of home refrigerators due to the current depressed economy. The 1990 consumption represents 0.17% of total world consumption and is approximately 0.035 Kg/capita. It is estimated that 44% of CFC is used in the foam industry, followed by 37% which is used in the refrigeration industry. Both private and public sectors are using ozone depleting substances (ODS).

The Bank is of the view that the Government of Egypt is committed to support a program for phasing out CFCs. Already the Ministry of Industry has issued a ministerial decree banning the use of CFC in the aerosol industry as of January 1991. EEAA, the Egyptian coordinating agency for CFC activities, is prepared to recommend to the GOE further actions for the CFC phase-out.

2. Goals and Status of Work Plan and Project Identification

The purpose of this work plan is to strengthen the Egyptian capabilities in consolidating their data collection on CFC, understand the technology of the CFC's-free alternatives and demonstrate the CFCs conservation process in the refrigeration industry. The work plan has been discussed with both UNEP and UNDP and it has been agreed that the World Bank will take the lead in developing the program as a model country program.

The work plan will be coordinated by EEAA which will provide in kind support during project identification and preparation.

3a. Task Descriptions

In order to undertake the work plan, the following tasks are proposed for FY 1992:

Task 1. Identification Mission.
Schedule: July 1991. Duration: 2 weeks

The purpose of this mission is to: (a) complete the requirements for the Country Program Framework (CFP) so that it can serve as a model for other developing countries to adopt; and (b) study the technical feasibility and define the project elements of the three activities on training, reduction of CFC-12 and recycling of CFC-11. The mission will consist of the task manager and a technical consultant.

Task 2. CFP and Project Preparation Mission
Schedule: September 1991. Duration: 3 weeks

This mission will discuss the final draft of the CFP which will be carried out in July-August 1991 and the action plan to implement the CFP. Based on the mission discussion with government officials and industrialists, the CFP will be finalized. The Mission will also discuss the specific details of the two projects in the refrigeration industry. This will include detailed project description, project analysis and implementation. The mission will consist of a task manager, one refrigeration consultant and one industrial economist.

Task 3. CFP Action Plan and Appraisal
Schedule: December 1991. Duration: 3 weeks.

Project appraisal will include the evaluation of the CFC phase-out policy and the regulatory environment affecting the performance of the above two refrigeration projects. Financing and implementation arrangements will be finalized in order to facilitate successful project implementation. Measures will also be identified to initiate the implementation of the CFP through a well defined action plan that should include these activities within the framework of phasing-out CFCs. The mission will consist of a task manager, a financial analyst and an economist.

Task 4. Board approval
Schedule: January 1992.

Task 5. Project Supervision Mission
Schedule: March 1992. Duration: 2 weeks.

Supervision will focus on the implementation of the different workshops and the initial activities of the two refrigeration projects approved by the Board.

3b. Project Descriptions

The Bank and EEAA have agreed on a short-term plan of activities that should help the GOE in initiating a program for CFC phase out. Details are as follows:

(a) **Policy:**

- Complete the EEAA/EPA study on the financial and economic impact of CFC phase-out in the refrigeration and foam industries.
- Develop a CFP outline for Egypt.

(b) **Projects:**

- Reduce CFC-12 charge in domestic refrigerators by redesigning refrigerator condensers.
- Establish recycling units to conserve CFC-11 and CFC-12 in refrigerators and air conditioners.

3c. Activities to be implemented by UNEP/UNDP

- Establish a database on CFC import and consumption conforming to the Protocol (UNEP).
- Conduct a series of workshops on CFC alternatives (UNDP).
- Establish a long-term training program to understand and assess CFC-free technologies (UNDP).

TABLE 1

COUNTRY: EGYPT

WORK PLAN CY91

TASKS/RESOURCES	PERSONS (#)	STAFF WEEKS	CONSULTANT DAYS	TRIPS (#)	FIELD DAYS	BUDGET ($)
STUDIES:						
Bank Staff	2	5		2	26	$21,875
Consultants						
External	1		30	1	20	$17,400
Local	1		36		36	$7,200
Travel						$11,646
Per Diem						$7,760
Other						$3,100
Subtotal Studies		5	66			$68,981
PREP/APPRAISALS						
Bank Staff	2	11		3	40	$48,125
Consultants						
External	1		24	1	16	$13,920
Local	1		20		20	$4,000
Travel						$16,060
Per Diem						$7,660
Other						$5,300
Subtotal Prep/Apprais		11	44			$95,065
GRAND TOTAL		16	110			$164,046

TABLE 2. EGYPT

FY 92 STUDY SCHEDULE
(MONTH/YEAR)

STUDY TASKS	PREPARATORY MISSION	MAIN MISSION	DRAFT REPORT	FINAL REPORT
1. CFP		07/91	08/91	09/91
2. Pre-investment Studies	09/91	12/91	12/91	01/92
3. Others (Specified)				
4.				
5.				

TABLE 3. EGYPT

FY 92 PROJECT COST & REPORT/APPROVAL SCHEDULE
(MONTH/YEAR)

PROJECT*	PROJECT COST $	IEPS DATE	FEPS DATE	APPRAISAL DATE	Y.C. REV. DATE	NEGOT. DATE	APPROVAL DATE
ID		08/91	08/91	12/91	12/91	01/92	01/92
Training							
Recycling							
Reducing CFC-12							

* Dates for all projects

GHANA

1. Background

Ghana acceded to the Montreal Protocol by ratifying the Protocol on July 24, 1989. Ghana is not a producer of any of the ozone depleting substances controlled by the Montreal Protocol (Group I substances: CFC-11, CFC-12, and CFC-113; Group II substances: Halon 1201, Halon 2402, Halon 2402, and carbon tetrachloride; and, Group III substances: 1,1,1-trichloroethane)[5]/. The demand for these substances is met entirely through importation. Preliminary estimates are that Ghana's 1990 consumption of ozone depleting substances was 152 MT, of which 29% was for CFC 12, 35% for CFC 11, and 32% for HCFC 22, with the balance being for CFC 113, F502 and 1,1,1 trichloroethane (methyl chloroform). Ghana's per capita consumption is 0.01kg. In addition, information is required on the policy and institutional framework within which the phase-out of ODSs will occur.

2. Goals of the Work Program and Project Identification

The main uses of Group I substances in Ghana are commercial, industrial, and domestic refrigeration and air-conditioning, automobile air-conditioning, aerosol products and fire protection. The number of firms and organizations using the bulk of these ODSs is small. The work plan has been discussed with both UNEP and UNDP and it has been agreed that the World Bank will take the lead in developing the program. The work program and budget has included an initial reconnaissance mission to assess the baseline data necessary to determine Ghana's dependence on ODSs. Ghana's eventual country program framework will evolve partly within the context of a future UNEP-sponsored regional workshop for low-consumption countries, which would use Ghana as a model country program, and include discussions of the specific policy, incentives, institutional, regulatory, and legislative issues with government, industry, consumer groups, NGOs, environmental groups and other non-industry groups. This is essential for the development of an overall strategy for phasing out these substances.

3. Task Descriptions

Task 1. Reconnaissance Mission
Schedule: March 1991

This mission will collect baseline information on the industry in Ghana. It will also make contact with Ghana's environmental authorities to plan future activities for implementing the Protocol. The result of the mission will be a baseline reconnaissance report on the consumption of ODSs, end use sectors, and technology characteristics of the affected industries. The Mission will consist of the World Bank Task Manager for Ghana and a technical consultant.

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[5]/ These are the ODSs widely used in each of the Groups and of most concern. There are a number of other materials included in the Protocol which are used in extremely small quantities or not at all in the industrialized world. It is highly unlikely that Ghana will be a consumer of these lesser known ODSs.

TABLE 1

COUNTRY: GHANA

WORK PLAN CY91

TASKS/RESOURCES	PERSONS (#)	STAFF WEEKS	CONSULTANT DAYS	TRIPS (#)	FIELD DAYS	BUDGET ($)
STUDIES:						
Bank Staff	1	1		1	6	$4,375
Consultants						
External	1		20	1	15	$11,600
Local						$0
Travel						$7,804
Per Diem						$2,583
Other						$3,000
Subtotal Studies		1	20			$29,362
PREP/APPRAISALS						
Bank Staff						$0
Consultants						
External						$0
Local						$0
Travel						$0
Per Diem						$0
Other						$0
Subtotal Prep/Apprais		0	0			$0
GRAND TOTAL		1	20			$29,362

JORDAN

1. Background

Since May 31, 1989, Jordan has been a party to the Montreal Protocol. The total CFCs consumption and per capita consumption for 1986, as reported by UNEP are 302 MT and 0.09 kg per capita respectively.

2. Goals and Status of Work Plan and Project Identification

The purpose of this work plan is to strengthen Jordan's capabilities in introducing CFC conservation measures in certain applications and in understanding the technology of the alternatives. The work plan has been discussed with both UNEP and UNDP and it has been agreed that the World Bank will take the lead in developing the program.

3a. Task Descriptions

The following tasks are planned for Jordan:

Task 1. Reconnaissance mission.
Schedule: September 1991. Duration: 2 weeks

We are planning to conduct a reconnaissance mission in order to collect information on CFC use, current and future growth; obtain, if available, previous studies on CFC utilization and substitutes and visit major industrial firms that are using CFCs. A baseline reconnaissance study will be prepared. The Bank task manager and a consultant will undertake the mission. Local consultants will also be used for data collection and analysis.

Task 2. Identification mission.
Schedule: November 1991. Duration: 2 weeks

Based on the assessment report in Tunisia, the mission will work with the Jordanian Environment Agency on the outline elements of the CFP and will identify potential projects that will assist Jordan in reducing CFC. An effort will be made to avoid replicating projects already undertaken in Egypt, Turkey, Yugoslavia and Tunisia. The task manager and an industrial economist will conduct this mission.

Task 3. CFP and Project preparation mission.
Schedule: February 1992. Duration: 2 weeks

The mission will discuss the draft of the CFP that will be conducted in December 1991 and January 1992 and the results of the previous mission in the form of a draft report. The project preparation phase will also be finalized. The mission will include the task manager, an economist, and an industrial engineer.

Task 4. Project appraisal.
Schedule: April 1992. Duration: 3 weeks

The appraisal mission will evaluate the policy and regulatory framework as defined in the CFP as well as the institutional, human resources and implementation arrangements for the projects identified. The mission will include the task manager, a financial analyst, and an economist.

3b. Project Descriptions

Projects will be identified during the identification mission. Emphasis will be on users with the largest potential CFC savings in the refrigeration, foam and aerosols industries.

TABLE 1

COUNTRY: JORDAN

WORK PLAN CY91

TASKS/RESOURCES	PERSONS (#)	STAFF WEEKS	CONSULTANT DAYS	TRIPS (#)	FIELD DAYS	BUDGET ($)
STUDIES:						
Bank Staff	2	4		2	20	$17,500
Consultants						
External	1		15	1	10	$8,700
Local	1		10		10	$2,000
Travel						$11,528
Per Diem						$4,440
Other						$2,345
Subtotal Studies		4	25			$46,513
PREP/APPRAISALS						
Bank Staff						$0
Consultants						
External						$0
Local						$0
Travel						$0
Per Diem						$0
Other						$2,310
Subtotal Prep/Apprais		0	0			$2,310
GRAND TOTAL		4	25			$48,823

TABLE 2. JORDAN

FY 92 STUDY SCHEDULE
(MONTH/YEAR)

STUDY TASKS	PREPARATORY MISSION	MAIN MISSION	DRAFT REPORT	FINAL REPORT
1. CFP		01/92	02/92	04/92
2. Pre-investment Studies	02/92	05/92	06/92	07/92
3. Others (Specified) Reconnaissance		09/91	11/91	12/91
4.				
5.				

TABLE 3. JORDAN

FY 92 PROJECT COST & REPORT/APPROVAL SCHEDULE
(MONTH/YEAR)

PROJECT	PROJECT COST $	IEPS DATE	FEPS DATE	APPRAISAL DATE	Y.C. REV. DATE	NEGOT. DATE	APPROVAL DATE
1. Projects		02/92	03/92	05/92	07/92	08/92	10/92
2. to							
3. be							
4. determined							
5.							
6.							

KENYA

1. Background

Kenya acceded to the Montreal Protocol by ratifying the Protocol on November 9, 1988. Kenya is not a producer of any of the ozone depleting substances controlled by the Montreal Protocol (Group I substances: CFC-11, CFC-12, and CFC-113; Group II substances: Halon 1201, Halon 2402, Halon 2402, and carbon tetrachloride; and, Group III substances: 1,1,1-trichloroethane)[5]. The demand for these substances is met entirely through importation. No information is available at this time on the levels of consumption, use pattern, structure, size, and technological sophistication of the ODS-consuming industrial sectors. In addition, information is required on the measures, if any, taken by the Government of Kenya (GOK) on the development of the policy and institutional framework within which the phase-out of ODSs will occur. The policy framework will be developed after discussions of the policy, incentives, institutional, regulatory, and legislative issues with consumer groups, NGOs, environmental groups and other non-industry groups. This is essential for the development of an overall strategy for phasing out these substances.

2. Goals of the Work Program and Project Identification

The main uses of Group I substances in Kenya are likely to be commercial, industrial, and domestic refrigeration and air-conditioning, automobile air-conditioning, aerosol products and fire protection. The Bank is of the view that the number of firms and organizations using the bulk of these ODSs is likely to be small. Information collection therefore would not be time consuming. The work program and budget considers a reconnaissance mission to assess the baseline data necessary to determine Kenya's dependence on ODSs. The Bank plans to coordinate efforts with the GOK representatives responsible for environmental planning. UNEP will then take the lead in assisting in the development of a country program, including the possibility of joint execution with UNDP of a training project. The Bank's work program has been discussed with and agreed to by UNEP and UNDP.

3. Task Descriptions

Task 1. Reconnaissance Mission
Schedule: March 1991

This mission will collect baseline information on the industry in Kenya. It will also make contact with Kenya's environmental authorities to plan future activities for implementing the Protocol. The result of the mission will be a baseline reconnaissance report on the consumption of ODSs, end use sectors, and technology characteristics of the affected industries. The Mission will consist of the World Bank Task Manager for Kenya and a technical consultant. The results of the mission will be shared with UNEP which is planning on assisting the government in developing a country program. Should the UNEP undertaking recommend any project investment activities, the Bank anticipates further consultations toward agreement on these investments.

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[5] These are the ODSs widely used in each of the Groups and of most concern. There are a number of other materials included in the Protocol which are used in extremely small quantities or not at all in the industrialized world. It is highly unlikely that Kenya will be a consumer of these lesser known ODSs.

TABLE 1

COUNTRY: KENYA

WORK PLAN CY91

TASKS/RESOURCES	PERSONS (#)	STAFF WEEKS	CONSULTANT DAYS	TRIPS (#)	FIELD DAYS	BUDGET ($)
STUDIES:						
Bank Staff	1	1		1	6	$4,375
Consultants						
External	1		20	1	15	$11,600
Local						$0
Travel						$10,150
Per Diem						$2,373
Other						$3,000
Subtotal Studies		1	20			$31,498
PREP/APPRAISALS						
Bank Staff						$0
Consultants						
External						$0
Local						$0
Travel						$0
Per Diem						$0
Other						$0
Subtotal Prep/Apprais		0	0			$0
GRAND TOTAL		1	20			$31,498

MALAYSIA

1. Background

Malaysia has signed and ratified the Montreal Protocol and it came into force on November 27, 1989. There is no production of ODS in the country and consumption of ODS is estimated at about 5,000 tons for 1990.

The Department of Environment (DE) has prepared TOR for a study to determine ODS consumption, future needs, alternative options and their cost, and the recommended strategy for compliance. The cost of this study has been estimated by the Department of Environment at US$87,000 (five months of one foreign expert, local consultants, and overseas and local travel). CIDA undertook this study in mid-1990. The study is scheduled for completion by June 1991.

The CIDA study will include an assessment of the current interaction in regard to ODS, supply/demand, major industries concerning ODS, and a description/analysis of current government programs in ODS phase out. It will not undertake the full scope of work required for a country program. Malaysia anticipates completing development of the country program National Study (Country Program Framework Paper) by July 1991.

We are proposing to the Government that preparation of the National Study and feasibility studies for the short-term action plan proceed in parallel.

The UNEP/SIDA CFC Project in Bangkok also promotes ODS Phase out activity in Malaysia.

2. Goals of the Work Program and Project Identification

To assist the Government in establishing and implementing an effective ODS phase out program. The work plan has been discussed with both UNEP and UNDP and it has been agreed that the World Bank will take the lead in developing the program.

3. Task Descriptions

Task 1. Reconnaissance mission -- to agree on work program.
Schedule: April 1991

Task 2. Complete National Study (CFP).
Schedule: completed by December 1991

Identify financing, select consultants, prepare TOR, and implement study.

Task 3. Project identification/preparation of feasibility studies.
Schedule: completed by June 1991

Identify financing and select consultants.

Task 4. Complete feasibility studies by December, 1991.

Task 5. Complete appraisal and documentation for eight (8) sub-projects.

TABLE 1

COUNTRY: MALAYSIA

WORK PLAN CY91

TASKS/RESOURCES	PERSONS (#)	STAFF WEEKS	CONSULTANT DAYS	TRIPS (#)	FIELD DAYS	BUDGET ($)
STUDIES:						
Bank Staff	1	3		1	5	$13,125
Consultants						
External						$0
Local						$0
Travel						$2,554
Per Diem						$615
Other						$0
Subtotal Studies		3	0			$16,294
PREP/APPRAISALS						
Bank Staff	2	4		1	12	$17,500
Consultants						
External	1		20	1	15	$11,600
Local						$0
Travel						$5,868
Per Diem						$3,321
Other						$0
Subtotal Prep/Apprais		4	20			$38,289
GRAND TOTAL		7	20			$54,583

TABLE 2. MALAYSIA

FY 91-92 STUDY SCHEDULE
(MONTH/YEAR)

STUDY TASKS	PREPARATORY MISSION	MAIN MISSION	DRAFT REPORT	FINAL REPORT
NONE				

TABLE 3. MALAYSIA

FY 92 PROJECT COST & REPORT/APPROVAL SCHEDULE
(MONTH/YEAR)

PROJECT	PROJECT COST $	IEPS DATE	FEPS DATE	APPRAISAL DATE	Y.C. REV. DATE	NEGOT. DATE	APPROVAL DATE
8 Sub-projects	$4million	10/91		12/91			03/92

MEXICO

1. Background

Mexico signed the Protocol in September 1987 and was the first country to ratify it in March 1988. Mexico consumes approximately 8,130 metric tons of Group I substances (CFC-12, CFC-11, CFC-113, and CFC-114), 260 metric tons of halons (Halon 1211 and Halon 1301) and 9,000 metric tons of Group III substances (1,1,1-trichloroethane). Mexico produces most of the CFC-11 and CFC-12 consumed domestically and a small portion of these substances is exported. Carbon Tetrachloride (a Group II substance) is also produced domestically and is consumed entirely as a feedstock for chlorofluorocarbon production. Mexico meets the demand for CFC-113, CFC-114, and methyl chloroform through importation.

Mexico has actively participated in the discussions and subsequent negotiations leading to the Montreal Protocol and currently co-chairs the Executive Committee of the Interim Multilateral Fund of the Montreal Protocol. It is very much committed to phase out the use of ODS. SEDUE has succeeded in convincing the two CFC producers and seven industrial users to sign voluntary agreements to reduce production and consumption of ODS, implement recycling and other conservation measures and, in some cases, adopt alternative technologies. About a dozen other agreements are being negotiated with individual firms or industry leaders. These voluntary agreements form the basis of Mexico's strategy to implement the Protocol and has been instrumental in creating an environment of trust and cooperation between the authorities and industry on this matter. SEDUE, with CANACINTRA's assistance, has also identified six projects to reduce or recycle CFCs. Three consist of implementing recycling technologies and the rest concern reduction of ODS use in foam, provision of training and safety during aerosol manufacturing. All the projects appear eligible for financing under the Interim Fund and are likely to reduce ODS consumption to some extent.

SEDUE's ozone protection effort consists of periodic oversight by two senior officials and a programs subdirector. USEPA is anticipating working with SEDUE to assist in their country program, in funding the first year of a technical center, and on a project to phase-out solvents. The Mexican industry has made significant in-kind contributions to these efforts. The Bank is of the view that SEDUE's work plans and goals will require additional staff availability and programmatic support.

2. Goals of the Work Program and Project Identification

The overall goal of the Bank's activities over the next three years in Mexico is to: (1) to support Mexico's project preparation and implementation effort, and (2) to help strengthen Mexico's institutional capabilities to manage ozone protection activities and complement its current policy framework with programs consistent with LATEN guidelines. Project activities for the three year period will be grouped in two phases: Phase I which includes projects already identified and those to be identified in CY91; and Phase II which includes projects identified in CY92. In addition, the Bank will support writing the Country Program Framework Paper (CFP) which will describe the approach and specific activities that the Bank will undertake to achieve the above goal. The Bank will agree with SEDUE on the paper's recommendations.

The work program outlined below assumes that the Mexican industry will continue to provide in-kind support during project identification and preparation. In addition, consultations are underway with USEPA on border region (Maquiladora) considerations. USEPA recently issued a report on project proposals eligible for funding under the Protocol, which the Bank will review. The work plan has been discussed with both UNEP and UNDP and it has been agreed that the World Bank will take the lead in developing the Mexico program as a global model country program of special interest to all three agencies.

3a. Task Descriptions

Task 1. Work Program Discussion and Update on Project Identification Mission (Phase I)
Schedule: January 1991 Duration:

This mission agreed with the Mexican authorities on a work program for the drafting of the Country Program Framework Paper (CFP) and the preparation of projects to be financed by the Interim Fund. The mission also collected additional information on the projects already identified by SEDUE and the Mexican industry team to make a preliminary assessment of the need for further preparatory project work.

Task 2. Policy Paper Discussions and CFP Formulation Mission
Schedule: May 1991 Duration: 6 months

The mission will have three tasks: (1) discuss overall policy, incentives, institutional, regulatory, and legislative issues with consumer groups, NGOs, environmental groups and other non-industry groups. (2) agree with SEDUE on the strategy and structure of the paper, (3) agree on the respective contribution of these institutions to the paper. Paper will be completed by May 1991.

Task 3. Project Preparation Missions (Phase I)
Schedule: July 1991 Duration: 6 months

Based on the results of the first mission, technical missions would be organized to complete detailed project preparation, including ODS reduction potential (i.e., kilograms or tons reduced), technology selection, project sites, profile of participating firms, and first order costs. To make best use of resources spent in the field, the missions could be organized so that groups of projects of similar technical nature are prepared together, or by working on groups of projects with similar data gathering needs. A local consultant will be recruited to assist headquarters staff and the Mexican authorities in these areas.

Task 4. Final CFP/Institutional Strengthening Mission
Schedule: September 1991

The mission will present the final CFP to the government and, based on its recommendation, will agree on a program to strengthen Mexico's policy framework and ozone protection management capabilities. The program budget and activities will be incorporated as a separate project into a Phase I project portfolio.

Task 5. Project Appraisal Mission (Phase I Projects)
Schedule: September 1991 Duration:

The mission will finalize the design and cost of the project portfolio and agree with the government and private sector participants on the conditions and financial arrangements of the loan/credit.

Task 6. Negotiations and Approval
Schedule: November 1991 Duration: 6 weeks

Negotiations could take place in November 1991 and the first operation could be approved before the end of 1991.

Task 7. Project Identification Mission (Phase II)
Schedule: January 1992 Duration:

This Mission will be aimed at identifying and determining additional preparation work for new projects identified and proposed by the Mexican industry and SEDUE.

Task 8. Supervision Mission
Schedule: January 1992

The mission will supervise the implementation of the first project approved in December 1991.

Task 9. Project Preparation Mission (Phase II Projects)
Schedule: April 1992 Duration:

Based on the results of the first mission for Phase II Projects, this technical mission would be organized to complete detailed project descriptions and other preparatory work.

Task 10. Appraisal Mission (Phase II Projects)
Schedule: November 1992 Duration:

The mission will finalize the design and cost of the Phase II project portfolio and agree with the government and private sector participants on the conditions and financial arrangements of the loan/credit.

Task 11. Negotiations and Approval
Schedule: February 1993 Duration: 2 months

Negotiation of the second phase project could take place in February/March 1993 and could be approved in April 1993.

3b. Project Descriptions

In a joint effort with CANACINTRA (Mexico's Chamber of Industries) and the United States Environmental Protection Agency, SEDUE conducted a study providing baseline data on total ODS consumption, growth forecasts, demand for ODS by end-use, technology used in these sectors, potential alternative technologies and substances, and first order costs of phasing out CFCs by the year 2010. Upon completion of this study, Mexico began discussions with industry to identify specific ODS reduction projects. The projects of immediate interest are:

Recycling

1. CFC-12 recycling from mobile air conditioning systems. Work completed so far includes project terms of reference, preliminary discussions with the automotive and air conditioning service industry.

2. Off-site CFC-113 and methyl chloroform recycling from solvent cleaning applications. Preliminary discussions with firms specialized in solvent treatment have been held and draft terms of reference are under preparation.

3. CFC-11 and CFC-12 recycling from refrigeration and air conditioning applications. A preliminary project proposal has been presented to SEDUE.

4. On-site CFC-11 recycling from large chillers. A preliminary project proposal has been presented to SEDUE.

Chemical Alternative:

Hydrocarbon propellants in aerosols. A public education and outreach program and a plan to strengthen safety systems in existing capacity have been proposed.

Alternative Technology:

Training and technical support to introduce technologies that eliminate the need for solvent cleaning in the electronics industry.

In addition, SEDUE is discussing draft terms of reference of a CFC conservation study for the Maquiladora industry (export-oriented firms typically operating in the Mexico/U.S. border zone). At least five additional projects concepts are currently being formulated.

TABLE 1

COUNTRY: MEXICO

WORK PLAN CY91

TASKS/RESOURCES	PERSONS (#)	STAFF WEEKS	CONSULTANT DAYS	TRIPS (#)	FIELD DAYS	BUDGET ($)
STUDIES:						
Bank Staff	1	3		3	20	$13,125
Consultants						
External	2		21	3	20	$12,180
Local						$0
Travel						$5,316
Per Diem						$5,440
Other						$0
Subtotal Studies		3	21			$36,061
PREP/APPRAISALS						
Bank Staff	1	4		2	10	$17,500
Consultants						
External	1		30	2	10	$17,400
Local	1		90			$27,000
Travel						$3,544
Per Diem						$2,720
Other						$0
Subtotal Prep/Apprais		4	120			$68,164
GRAND TOTAL		7	141			$104,225

TABLE 2. MEXICO

FY 91/92 STUDY SCHEDULE
(MONTH/YEAR)

STUDY TASKS	PREPARATORY MISSION	MAIN MISSION	DRAFT REPORT	FINAL REPORT
1. CFP	5/91	7/91	7/91	9/91
2. Pre-investment Studies				
3. Others (Specified)				

TABLE 3. MEXICO

FY 92/93 PROJECT COST & REPORT/APPROVAL SCHEDULE
(MONTH/YEAR)

PROJECT	PROJECT COST $	IEPS DATE	FEPS DATE	APPRAISAL DATE	Y.C. REV. DATE	NEGOT. DATE	APPROVAL DATE
Phase I Projects	$5million	04/91	07/91	09/91	10/91	11/91	12/91
Phase II Projects		02/92	05/92	11/92	01/93	03/93	04/93

NIGERIA

1. Background

Nigeria acceded to the Montreal Protocol by ratifying the Protocol on October 31, 1988. Nigeria is not a producer of any of the ozone depleting substances controlled by the Montreal Protocol (Group I substances: CFC-11, CFC-12, and CFC-113; Group II substances: Halon 1201, Halon 2402, Halon 2402, and carbon tetrachloride; and, Group III substances: 1,1,1-trichloroethane)[7]/. The demand for these substances is met entirely through importation. An initial reconnaissance study was carried out in November/December 1990 and concluded that CFC consumption in Nigeria is sufficiently high to warrant follow-up work towards the development of a national reduction/phase out strategy.

The recent mission to Nigeria estimated the level of CFC consumption at 3000-4000 MT per year and, in conjunction with the fact that the number of users is fairly substantial, Nigeria should be included among those nations for which follow-up studies should be undertaken. Priority for design of reduction/substitution programs should be focused on aerosol and foaming agent applications, where commercial technology is already available. As substitute technology becomes available, refrigeration/air conditioning applications can be addressed.

Information is required on the measures, if any, taken by the Government of Nigeria (GON) on the development of the policy and institutional framework within which the phase-out of ODSs will occur. The policy framework will be developed after discussions of the policy, incentives, institutional, regulatory, and legislative issues with consumer groups, NGOs, environmental groups and other non-industry groups. Some of this work is being undertaken within the framework of the Bank's Environmental Management Project, for Nigeria, which is now under preparation.

The main uses of Group I substances in Nigeria are likely to be commercial, industrial, and domestic refrigeration and air-conditioning, automobile air-conditioning, aerosol products and fire protection. The Bank is of the view that the number of firms and organizations using the bulk of these ODSs is likely to be small. Information collection therefore would not be time consuming.

2. Goals of the Work Program and Project Identification

Based upon analysis of indicative 1985 market share data, aerosol and foaming agent applications account for some 65% of national consumption, solvent usage is negligible, and air conditioning/refrigeration is 35%. These market shares may have already changed substantially due to substitutions for CFC's in aerosol and foam production. The extent of such substitution will be estimated in follow-up work by the Bank during preparation of the industrial pollution component of the Environmental Management Project.

A CFC Reduction Technical Strategy Development Study will be conducted to provide a sound technical foundation for the development of a country strategy and recommend programs and investment activities for CFC reduction/substitution/elimination. It will identify programs and investment activities for which Trust Fund financing will facilitate implementation of the proposed country strategy. The results of this study will be the baseline data for development of the country strategy and country program framework. In-country training, and technical assistance needs in support of country program implementation, will be defined by the Bank in collaboration with the UNDP, partly in the context of an in-country technical assistance workshop sponsored by the UNDP. Related

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[7]/ These are the ODSs widely used in each of the Groups and of most concern. There are a number of other materials included in the Protocol which are used in extremely small quantities or not at all in the industrialized world. It is highly unlikely that Nigeria will be a consumer of these lesser known ODSs.

African regional-level seminars and workshops will be sponsored by UNEP. The work plan has been discussed with both UNEP and UNDP and it has been agreed that the World Bank will take the lead in developing the program.

The study will be carried out by an international chemical process design consulting firm with expertise in the principal applications of CFC's, particularly Freons. The national counterpart supervising agency will be FEPA. Interim Trust Fund support will be provided to Federal Environmental Protection Agency (FEPA) in the form of an appropriate technical consultant for study supervision and review. The study will have a calendar duration of three months, subject to preparation of the initial census by FEPA.

3. Task Description

Task 1. Technical Strategy Development Study
Schedule:

Starting with a census of all major industrial users of CFCs prepared by the Federal Environmental Protection Agency (FEPA), the selected consultants will carry out a detailed enterprise level technical assessment of major industrial users of CFCs and also of a sample of the retail air conditioning repair and maintenance operations. The focus of the assessment will be to compile a profile of CFC users for each of the major applications to include inter alia substitution/reduction measures already taken or possible at the individual enterprise level, possible implementable reduction/conservation measures in the air conditioner assembly and repair/maintenance sub-sectors, etc. Based upon the information developed, the consultants will draw up a technical strategy and action plan in line with the study objectives. The consultants will ensure at all times that their recommendations take into account the latest developments and projected time table for commercial introduction of substitute chemical and hardware technology.

Study Team Composition

- Team Leader/Senior Process Engineer 3 months
- Mechanical Eng./Air Conditioning Specialist 3 months
- National Chem./Mech. Engineer 1 month

FEPA Technical Consultant 1 month

TABLE 1

COUNTRY: NIGERIA

WORK PLAN CY91

TASKS/RESOURCES	PERSONS (#)	STAFF WEEKS	CONSULTANT DAYS	TRIPS (#)	FIELD DAYS	BUDGET ($)
STUDIES:						
Bank Staff	1	1		1	6	$4,375
Consultants						
External	3		234	2	90	$135,720
Local	1		65			$6,500
Travel						$10,572
Per Diem						$12,768
Other						$43,000
Subtotal Studies		1	299			$212,935
PREP/APPRAISALS						
Bank Staff						$0
Consultants						
External						$0
Local						$0
Travel						$0
Per Diem						$0
Other						$0
Subtotal Prep/Apprais		0	0			$0
GRAND TOTAL		1	299			$212,935

PHILIPPINES

1. Background

The Philippines has signed and ratified the Montreal Protocol. A country study funded by the EEC and carried out by COWIConsult (Danish), was completed and presented to the Government in February 1991.

Consumption of ODS is estimated at 4,100 tons in 1990 with major consumption industries being refrigeration/AC, solvent and foam application, and tobacco processing.

The EEC report recommends a relatively fast phase-out scenario but does not include all costs and benefits. We propose to recommend to the EEC to, (1) modify the report to include full costs, and (2) complete the Country Program Framework Paper (CFP) for the Philippines.

2. Goals of the Work Program and Project Identification

To assist the Government in establishing and implementing an effective ODS phase-out program. The work plan has been discussed with both UNEP and UNDP and it has been agreed that the World Bank will take the lead in developing the program.

3. Task Descriptions

Task 1. Assist the Government in completing the CFP by September, 1991.

Task 2. Project identification/preparation/feasibility studies. Identify financing, consultants, prepare TOR, by September, 1991.

Task 3. Complete feasibility studies by December, 1991.

Task 4. Complete appraisal and documentation for five (5) sub-projects by June, 1992.

TABLE 1

COUNTRY: PHILIPPINES

WORK PLAN CY91

TASKS/RESOURCES	PERSONS (#)	STAFF WEEKS	CONSULTANT DAYS	TRIPS (#)	FIELD DAYS	BUDGET ($)
STUDIES:						
Bank Staff	1	2		1	5	$8,750
Consultants						
External	1		20	1	10	$11,600
Local						$0
Travel						$7,542
Per Diem						$2,235
Other						$0
Subtotal Studies		2	20			$30,127
PREP/APPRAISALS						
Bank Staff	0	0		0	0	$0
Consultants						
External	0		0		0	$0
Local	0		0		0	$0
Travel						$0
Per Diem						$0
Other						$0
Subtotal Prep/Apprais		0	0			$0
GRAND TOTAL		2	20			$30,127

TABLE 2. PHILIPPINES

FY 91-92 STUDY SCHEDULE
(MONTH/YEAR)

STUDY TASKS	PREPARATORY MISSION	MAIN MISSION	DRAFT REPORT	FINAL REPORT
CFP Update			Done	9/91
Feasibility Studies				12/91

TABLE 3. PHILIPPINES

FY 92 PROJECT COST & REPORT/APPROVAL SCHEDULE
(MONTH/YEAR)

PROJECT	PROJECT COST $	IEPS DATE	FEPS DATE	APPRAISAL DATE	Y.C. REV. DATE	NEGOT. DATE	APPROVAL DATE
5 Sub-projects	$4million	10/91		1/92			6/92

SRI LANKA

1. Background

Sri Lanka has signed and ratified the Montreal Protocol. No information is available on ODS in Sri Lanka.

2. Goals of the Work Program and Project Identification

To assist the Government in establishing and implementing an effective ODS Phase Out Program. The work plan has been discussed with both UNEP and UNDP and it has been agreed that the World Bank will take the lead in developing the program.

3. Task Descriptions

Task 1. Reconnaissance mission is scheduled for June, 1991 to determine status of ODS program.

Task 2. Reach agreement with UNDP on who will undertake preparation work for Sri Lanka.

Task 3. Complete preparation of Country Program Framework Paper (CFP) by December, 1991.

Task 4. Project preparation work - to be completed by June, 1992.

TABLE 1

COUNTRY: SRI LANKA

WORK PLAN CY91

TASKS/RESOURCES	PERSONS (#)	STAFF WEEKS	CONSULTANT DAYS	TRIPS (#)	FIELD DAYS	BUDGET ($)
STUDIES:						
Bank Staff	1	2		0	0	$8,750
Consultants						
External	1		20	1	10	$11,600
Local						$0
Travel						$2,099
Per Diem						$890
Other						$0
Subtotal Studies		2	20			$23,339
PREP/APPRAISALS						
Bank Staff						$0
Consultants						
External						$0
Local						$0
Travel						$0
Per Diem						$0
Other						$0
Subtotal Prep/Apprais			0			$0
GRAND TOTAL		2	20			$23,339

TABLE 2. SRI LANKA

FY 91-92 STUDY SCHEDULE
(MONTH/YEAR)

STUDY TASKS	PREPARATORY MISSION	MAIN MISSION	DRAFT REPORT	FINAL REPORT
Reconnaissance Study		6/91		7/91
CFP		12/91		6/92

TABLE 3. SRI LANKA

FY 92 PROJECT COST & REPORT/APPROVAL SCHEDULE
(MONTH/YEAR)

PROJECT	PROJECT COST $	IEPS DATE	FEPS DATE	APPRAISAL DATE	Y.C. REV. DATE	NEGOT. DATE	APPROVAL DATE
None							

THAILAND

1. Background

Thailand has signed and ratified the Montreal Protocol. No ODSs are produced in the country and 1990 consumption, met by imports, was about 7,370 tons. The main uses of CFCs are in plastic foams, electronics, and refrigeration and air conditioning. Consumption of halons in fire fighting equipment (about 90 tons annually), and CFCs in aerosols (450 tons) are small.

The responsibility for compliance with the Protocol provisions has been given to the Ministry of Industry (MOI) and the National Environmental Board (NEB) gives technical support for the ODS program. The Federation of Thai Industries (FTI) has established an Industrial Environmental Management Program. The Government is aware of the importance that compliance with the Protocol has for the future of exports (mainly of refrigerators, plastic foam, auto parts, electronic products and ball bearings).

A UNEP/SIDA project on the control of CFCs and other ODS has been started. The possibility of creating a Technical Center for CFC in Thailand is being investigated; this Center would, among other things, assist in the training of qualified technicians, promote ODS phase out activities and conduct the development of Thailand's ODS phase out program.

The government has submitted the TOR for a Country Program Framework Paper (CFP) to UNEP for consideration. The government has also requested UNDP and/or UNEP to finance a separate proposal for technical assistance to local institutions responsible for developing and implementing the ODS phase out program. Finally, the government has requested the World Bank to act as Executing Agency for the above CFP and technical assistance, as well as for three feasibility studies to develop a short term investment plan.

2. Goals of the Work Program and Project Identification

The overall goal is to assist the government in establishing and implementing an effective ODS phase out program. The work plan has been discussed with both UNEP and UNDP and it has been agreed that the World Bank will take the lead in developing the program.

The three feasibility studies, namely, (1) auto A/C CFC recycling, (2) solvent recycling, and (3) ODS substitution in solvent applications, are designed to develop specific investments in the main ODS consumption areas with the highest growth rates and where cost-effective technology is already established in other countries. The studies will bring in relevant expertise/technology from other sources and provide for appropriate transfer of that technology to local sources. The studies include all the analysis required to take each set of projects to the investment stage.

3. Task Descriptions

Task 1. Reconnaissance mission in April 1991 to agree on work program.

Task 2. Complete Country Program Framework Paper (CFP). Agree on financing source, select consultants, agree on TOR, and implement study, to be completed by December, 1991.

TABLE 1

COUNTRY: THAILAND

WORK PLAN CY91

TASKS/RESOURCES	PERSONS (#)	STAFF WEEKS	CONSULTANT DAYS	TRIPS (#)	FIELD DAYS	BUDGET ($)
STUDIES:						
Bank Staff	2	8		2	20	$35,000
Consultants						
External	1		14	1	7	$8,120
Local						$0
Travel						$11,783
Per Diem						$5,157
Other						$0
Subtotal Studies		8	14			$60,060
PREP/APPRAISALS						
Bank Staff						$0
Consultants						
External						$0
Local						$0
Travel						$0
Per Diem						$0
Other						$0
Subtotal Prep/Apprais			0			$0
GRAND TOTAL		8	14			$60,060

Task 3. Project identification/preparation of feasibility studies, including identifying financing source, selecting consultants and implementing studies to be completed by December, 1991.

Task 4. Complete appraisal and documentation for 10 sub-projects.

TABLE 2. THAILAND

FY 91-92 STUDY SCHEDULE
(MONTH/YEAR)

STUDY TASKS	PREPARATORY MISSION	MAIN MISSION	DRAFT REPORT	FINAL REPORT
CFP	5/91	7/91	10/91	12/91
Pre-investment Studies	5/91	7/91	10/91	12/91

TABLE 3. THAILAND

FY 92 PROJECT COST & REPORT/APPROVAL SCHEDULE
(MONTH/YEAR)

PROJECT	PROJECT COST $	IEPS DATE	FEPS DATE	APPRAISAL DATE	Y.C. REV. DATE	NEGOT. DATE	APPROVAL DATE
10 Sub-projects	$8million	1/92	2/92	2/92	3/92		4/92
3 feasibility projects	$470,000						

TRINIDAD AND TOBAGO

1. Background

Trinidad and Tobago (T&T) acceded to the Montreal Protocol by ratifying the Protocol on 28 August 1989. T&T is not a producer of Group I substances (CFC-11, CFC-12, and CFC 113), Group II substances (Halon 1201, Halon 2402, and carbon tetrachloride) or Group III substances (1,1,1-trichloromethane) as classified under the Protocol[8]/. The demand for these substances is met entirely through importation.

Detailed information on the levels of consumption, use pattern, structure, size, and technological sophistication of the ODS-consuming industrial sectors is currently unavailable. However, anecdotal information indicates that the main applications of Group I substances are: (i) commercial and industrial air-conditioning; (ii) automobile air-conditioning: (iii) aerosols; and (iv) fire protection. Moreover, the number of users in each of these sectors are few. Detailed information on the measures taken by the Government (GOTT) to develop the policy and institutional frameworks within which the phase-out of Group I, II, and III substances will occur also remains to be determined. This is essential for development of an overall strategy to phase out these substances.

Because of the small scale of the ODS consuming sectors, information collection should not be time consuming. Moreover, in the T&T context, it may be expected that local organizations like the ministry of Environment (MOE), the Institute (CARIRI), the Bureau of Standards (BOS), and various industry groups could participate in the design and implementation of an ODS phase-out plan.

2. Goals and Status of Work Plan and Project Identification

The Bank is presently preparing a Private Sector Development and Industrial Restructuring (IR) operation for T&T and is contemplating future work to develop an environmental project. The schedule presented below: (i) reflects critical dates for processing the IR project; (ii) contemplates that the baseline reconnaissance study and the Country Program Framework Paper (CFP) can be combined because ODS-using industrial subsectors are small; and (iii) assumes that technologies which are commercially available in industrialized countries to reduce ODS use will be implemented in T&T. As the work program unfolds, tasks will be merged, as feasible, in cost-effective ways.

The Government has established a special working group to prepare a case study for ODS reduction in Trinidad/Tobago, which is expected to be finished by the end of June. The Bank is working in close collaboration with UNDP staff in Trinidad & Tobago. The work plan has been discussed with both UNEP and UNDP and it has been agreed that the World Bank will take the lead in developing the program.

3a. Task Descriptions[9]/

Task 1. Reconnaissance Mission
Schedule: January 1991

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[8]/ These are the ODSs widely used in each of the Groups and of most concern. There are a number of other materials included in the Protocol which are used in extremely small quantities or not at all in the industrialized world. It is highly unlikely that T&T will be a consumer of these lesser known ODSs.

[9]/ The overall schedule is tentative and will depend on staff availability and progress made by T&T and other counterparts.

This Mission contacted the Ministry of Environment and the UNDP resident representative to assess the status of in country efforts to collect baseline data, and the capacity of local institutions to support implementation activities for the Protocol. The Mission also assessed prospects for developing a possible program for BOS to develop industrial standards to assist phase-out of ODSs. The Mission consisted of the World Bank Task Manager for the IR operation, and a technical consultant. It found that: (i) the Ministry of Environment had designated a Working Group to prepare a baseline reconnaissance study; however, it had not yet initiated its work; and (ii) in the Mission's preliminary judgement, such Working Group might benefit in due course from specialist input in the areas of aerosols, refrigerants, and calculation of incremental costs under the phase-out program. The question of where such resources would come from, should they be necessary, remains open. They have therefore been included in the budget for the July 1991 task listed below.

Task 2. Baseline Study -- Programming Mission
Schedule: June 1991

This Mission will follow-up on the activities of the previous trip. Its objective will be to reach agreement upon the role of the Bank in project development, and identify firm resource needs and a calendar for action. It will consist of the World Bank IR Task Manager.

Task 3. Baseline Study -- CFP Mission
Schedule: September 1991

This Mission will follow-up on the agreements of the previous trip. It will include two technical consultants and an industrial economist to develop and define the technical, policy, and institutional framework, consistent with LATEN guidelines required to implement the Protocol. The technical consultants will also work with the GOTT and industry to identify possible projects that could be implemented immediately. In-country implementation support personnel will also be identified. It will be essential to have in-country data collection and project design support. The Mission will also define information needs for project preparation for each of the projects identified, and distribute them to the likely participants to facilitate project preparation. The Mission's main output will be a draft CFP.

Task 4. Final CFP Mission: Preparation of CFP and Project Identification
Schedule: January 1992

This Mission will present and discuss the draft CFP, discuss the possibility of using the existing policy and institutional framework to implement the Protocol, and agree upon a tentative strategy for T&T to phase-out ODSs. The CFP will be finalized based on these discussions. The Mission will also discuss: (i) project-specific details with relevant industry groups; and (ii) overall policy, incentives, institutional, regulatory, and legislative issues with consumer groups, NGOs, environmental groups and other non-industry groups. The project preparation phase will also be advanced through discussions with industry groups on their progress in fulfilling the information needs distributed to them in the previous Mission.

Task 5. Policy and Project Preparation Mission
Schedule: January 1992

This Mission will finalize the detailed projects and discuss them with GOTT and the industries involved. Discussion with GOTT on establishing or fine tuning the policy and institutional framework will also take place. If any of the Projects are likely to involve procurement of equipment, then

guidelines for such activity will have to be formulated. Each of the projects will provide for seminars, training, and technology demonstration activities to ensure rapid replication of the project throughout T&T.

Task 6. Bank Approval[10]/
Schedule: February 1992

The projects will be presented to the Bank Board or Management (as necessary) for approval.

Task 7. Project Implementation Mission
Schedule: May 1992

For each of the projects approved by the Bank, the initial implementation activities will be initiated.

Task 8. Project Monitoring Mission
Schedule: August 1992

A supervision mission will assess progress in reducing the use of ODSs.

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[10]/ The actual staff input required to obtain approval for these projects will depend on the approval procedure; the cited estimate would be modified accordingly.

TABLE 1

COUNTRY: TRINIDAD & TOBAGO

WORK PLAN CY91

TASKS/RESOURCES	PERSONS (#)	STAFF WEEKS	CONSULTANT DAYS	TRIPS (#)	FIELD DAYS	BUDGET ($)
STUDIES:						
Bank Staff	3	5		3	15	$19,688
Consultants						
External	4		70	2	15	$40,600
Local	6		30			$6,000
Travel						$5,754
Per Diem						$5,460
Other						$30,059
Subtotal Studies		5	100			$107,561
PREP/APPRAISALS						
Bank Staff	2	7		1	14	$30,625
Consultants						
External	2		30	1	14	$17,400
Local	5		20			$4,000
Travel						$2,198
Per Diem						$5,096
Other						$27,524
Subtotal Prep/Apprais		7	50			$86,843
GRAND TOTAL		12	150			$194,404

TUNISIA

1. Background

Since September 25, 1989, Tunisia has been a party to the Montreal Protocol. In January 1991, at the invitation of the Tunisian Government, the Bank conducted a reconnaissance mission to collect CFC data by years and end uses and identify start-up activities for a CFC conservation program.

Tunisia is a net CFC importer, its 1990 consumption is 730 tons with a consumption level of 0.1 kg/capita. It is estimated that 40% of CFC is used in the aerosol industry followed by 34% in use for the refrigeration industry and a balance of 26% in use for the foam industry.

The Bank is of the view that the Government of Tunisia (GOT) is committed to support a program for decreasing the use of CFC in the aerosol industry with an eventual phase out of CFC in the foam industry. The Agence Nationale de la Protection de l'Environnement (ANPE) is eager to embark on a reduction CFC program for Tunisia.

2. Goals and Status of Work Plan and Project Identification

The goal of this work plan is to: (a) strengthen the Tunisian capability in understanding the technology of the CFC-free alternatives; and (b) to demonstrate the CFC's conservation process in its industry. The work plan has been discussed with both UNEP and UNDP and it has been agreed that the World Bank will take the lead in developing the program.

Because the CFC market and users are small, Tunisia is ideally suited to serve as a testing ground for policies and programs to conserve, reduce and eventually eliminate CFCs uses in other small developing countries.

3a. Task Descriptions

Task 1. Identification mission.
Schedule: August 1991. Duration 2 weeks

The purpose of this mission is to: (a) write the terms of reference for the Country Program Framework (CFP); (b) design the workshops to be offered and agree on the curricula; and (c) study the technical feasibility and define the project elements of the activities described in 3b below. The mission will consist of the task manager and a technical consultant.

Task 2. CFP and Project Preparation Mission
Schedule: October 1991. Duration 3 weeks

The mission will discuss the final draft on the CFP that will be prepared in September 1991 and the action plan to implement the CFP. Based on the mission discussion with government officials and industrialists, the CFP will be finalized. The Mission will also discuss the specific details of the projects in the refrigeration, aerosol and foam industries. This will include detailed project description, project analysis and implementation. Organization of the workshops and training programs will also be finalized. The mission will consist of a task manager, one refrigeration consultant, one industrial economist, and a project engineer.

Task 3. CFP Action Plan and Appraisal

Schedule: December 1991. Duration: 3 weeks.

Project appraisal will include the evaluation of the CFC Phase-out policy and the regulatory environment affecting the performance of the above two refrigeration projects. Financing and implementation arrangements will be finalized in order to facilitate successful project implementation. Measures will also be identified to initiate the implementation of the CFP through a well defined action plan that should include these activities within the framework of phasing-out CFCs. The mission will consist of a task manager, a financial analyst and an economist.

Task 4. Board approval
Schedule: March 1992.

Task 5. Project Supervision Mission
Schedule: April 1992 Duration: 2 weeks.

Supervision will focus on the implementation of the different workshops and the initial activities of the two refrigeration projects approved by the Board.

3b. Project Descriptions

The Bank and ANPE have agreed on a work plan that should help the Government of Tunisia in initiating a program for CFC reduction. Details are as follows:

(a) **Policy**

- Develop a CFP for Tunisia;

(b) **Projects**

- Begin planning for introducing the new alternative refrigerant (HFC-134a) and a modified foam insulation system in the refrigeration industry.
- Establish a program in a major refrigerant service company to improve service procedures, train technicians to conserve CFC, and demonstrate the use of CFC recovery/recycling machines.
- Demonstrate use of non-ODS blowing agents in the manufacture of flexible foam
- Assist aerosol producers with modifying their plants for use of LPG to replace CFC's

3c. Activities implemented by UNEP/UNDP

The following related activities will be implemented by UNEP and UNDP:

- Complete the data base on CFC import and consumption in conformity with the Protocol (UNEP);
- Conduct a symposium on CFC substances and their alternatives (UNDP).

TABLE 1

COUNTRY: TUNISIA

WORK PLAN CY91

TASKS/RESOURCES	PERSONS (#)	STAFF WEEKS	CONSULTANT DAYS	TRIPS (#)	FIELD DAYS	BUDGET ($)
STUDIES:						
	2	4		2	20	$17,500
Consultants						
External	1		25	1	15	$14,500
Local	1		30		30	$6,000
Travel						$13,648
Per Diem						$5,280
Other						$1,435
Subtotal Studies		4	55			$58,363
PREP/APPRAISALS						
Bank Staff	2	6		3	24	$26,250
Consultants						
External	1		18	1	12	$10,440
Local	1		12		12	$2,400
Travel						$18,860
Per Diem						$4,488
Other						$2,310
Subtotal Prep/Apprais		6	30			$64,748
GRAND TOTAL		10	85			$123,111

TABLE 2. TUNISIA

FY 92 STUDY SCHEDULE
(MONTH/YEAR)

STUDY TASKS	PREPARATORY MISSION	MAIN MISSION	DRAFT REPORT	FINAL REPORT
1. CFP		08/91	10/91	11/91
2. Pre-investment Studies	11/91	12/91	01/91	02/92
3. Others (Specified)				
4.				
5.				

TABLE 3. TUNISIA

FY 92 PROJECT COST & REPORT/APPROVAL SCHEDULE
(MONTH/YEAR)

PROJECT*	PROJECT COST $	IEPS DATE	FEPS DATE	APPRAISAL DATE	Y.C. REV. DATE	NEGOT. DATE	APPROVAL DATE
Training		08/91	09/91	12/91	01/92	2/92	3/92
Refrigeration							
Foam							
Aerosol							

* Dates for all projects

VENEZUELA

1. Background

The work program for Brazil has been withdrawn due to the lack of government approval at this time. Although a work program has been proposed, the authorities were unable at the time to approve. Provision of US$10,000 is therefore now being made to allow for further discussions with the government with the intention of reporting back to the Executive Committee of the Multilateral Fund at the earliest possible date.

YUGOSLAVIA

1. Background

On December 26, 1990, the Yugoslav government ratified the Montreal Protocol and submitted its letter of accession to the UN Secretary General. Yugoslavia is expected to be a party to the Protocol in the next Parties meeting scheduled for July 1991.

In November 1990, at the invitation of the Yugoslav Government, the Bank conducted a reconnaissance study to collect CFC data by years and end uses and identify possible demonstration projects for CFC phase-out.

Yugoslavia is a net CFC importer. In 1989 its consumption was 5889 metric tons (MT), with an expected decrease to 4855 MT in 1990. This decrease is due to the conversion of aerosols in insecticides to LPG, and a 50 percent decrease of CFC-11 used for refrigeration foam. The 1989 consumption represents 0.6 percent of the total world consumption and is approximately 0.22 kg per capita. It is estimated that 54 percent of CFC is used in the foam industry, followed by 32 percent which is used in the aerosol industry with the refrigeration industry accounting for 13 percent and solvent for less than 1 percent. Most of CFC users are from the Yugoslav public sector.

The Bank is of the view that the Government of Yugoslavia (GOY) is committed to support a program for phasing out CFCs. The Federal Ministry of Health is responsible for the implementation of the Protocol. The Yugoslav refrigeration, cosmetic and foam industries are eager to use CFC-free substances in their products so that they can remain competitive in the export market. The Undersecretariat for the Environment, which is the coordinating agency for the CFC activities, has already included in its strategy a program for phasing out CFC.

2. Goals of the Work Program and Project Identification

The objective of the work plan is to support the Yugoslav Government and industry in conserving and phasing out CFC from its industry. The plan is to apply and promote the use of CFC-free technologies in the refrigeration, aerosol and foam sectors. The work plan has been discussed with both UNEP and UNDP and it has been agreed that the World Bank will take the lead in developing the program.

3a. Task Description

In order to undertake the above activities, the following tasks are proposed for 1991.

Task 1. Identification mission.
Schedule: October 1991 Duration: 2 weeks

The purpose of this mission is to: (a) write the terms of reference for the Country Program Framework Paper (CFP); (b) design the training courses to be offered and agree on the curricula; and (c) study the technical feasibility and define the project elements of the projects stated in section (3b). The mission will consist of the task manager and a project engineer.

Task 2. CFP and Project Preparation Mission.
Schedule: February 1992 Duration: 3 weeks

This mission will discuss the final draft of the CFP which should have been prepared in November-December 1991, and the action plan to implement the CFP. Based on the mission discussion with government officials and industrialists, the CFP will be finalized. The Mission will also discuss the specific details of the three projects stated in section (3b). This will include detailed project description, project analysis and implementation. Training programs will also be finalized. The mission will consist of a task manager, one refrigeration consultant, a project engineer and one industrial economist.

Task 3. CFP Action Plan and Appraisal
Schedule: March 1992 Duration: 3 weeks

Project appraisal will include the evaluation of the CFC phase out policy and the regulatory environment affecting the performance of the above three refrigeration projects. Financing and implementation arrangements will be finalized in order to facilitate successful project implementation. Measures will also be identified to initiate the implementation of the CFP through a well-defined action plan that should include these activities within the framework of phasing out CFCs. The mission will consist of a task manager, a financial analyst and an economist.

Task 4. Board approval.
Schedule: June 1992

Task 5. Project Supervision Mission.
Schedule: August 1992 Duration: 2 weeks

Supervision will focus on the implementation of the different workshops and the initial activities for the three above projects approved by the Board.

3b. Project Descriptions

The Bank and the Undersecretariat of the Environment have agreed on a short-term plan of activities that should help the Government of Yugoslavia in initiating a program for CFC phase-out. Details are as follows:

(a) **Policy:**

- Develop a CFP for Yugoslavia

(b) **Information awareness:**

- Establish a database on CFC import and consumption conforming to Protocol
- Conduct a series of workshops on CFC alternatives
- Train a core of engineers in the use of CFC alternatives

(c) **Projects:**

- Establishment of a central recovery/recycling plant for CFC-12

- Establishment of two LPG purifying units in two refineries for the cosmetic industry
- Use of non ODS-blowing agents in the foam and polystyrene manufactures

TABLE 1

COUNTRY: YUGOSLAVIA

WORK PLAN CY91

TASKS/RESOURCES	PERSONS (#)	STAFF WEEKS	CONSULTANT DAYS	TRIPS (#)	FIELD DAYS	BUDGET ($)
STUDIES:						
Bank Staff	2	3		1	15	$13,125
Consultants						
External	1		20	1	15	$11,600
Local						$0
Travel						$7,358
Per Diem						$4,050
Other						$2,100
Subtotal Studies		3	20			$38,233
PREP/APPRAISALS						
Bank Staff						$0
Consultants						
External						$0
Local						$0
Travel						$0
Per Diem						$0
Other						$3,500
Subtotal Prep/Apprais			0			$3,500
GRAND TOTAL		3	20			$41,733

TABLE 2. YUGOSLAVIA

FY 92 STUDY SCHEDULE
(MONTH/YEAR)

STUDY TASKS	PREPARATORY MISSION	MAIN MISSION	DRAFT REPORT	FINAL REPORT
1. CFP		12/91	02/92	03/92
2. Pre-investment Studies	02/92	03/92	04/92	05/92
3. Others (Specified)				

TABLE 3. YUGOSLAVIA

FY 92 PROJECT COST & REPORT/APPROVAL SCHEDULE
(MONTH/YEAR)

PROJECT*	PROJECT COST $	IEPS DATE	FEPS DATE	APPRAISAL DATE	Y.C. REV. DATE	NEGOT. DATE	APPROVAL DATE
Workshops		10/91	11/92	03/92	04/92	05/92	06/92
Training							
Central Recovery Plant							
LPG Purifying Plant							
Foams							

* Dates for all projects