



United Nations Environment Programme



Distr.
LIMITED



UNEP/OzL.Pro/ExCom/6/3/Corr.2
25 February 1992

ORIGINAL: ENGLISH

Executive Committee of the
Interim Multilateral Fund for the
Implementation of the Montreal Protocol

Sixth Meeting
Montreal, 27-28 February 1992

Corrigendum

WORLD BANK WORK PROGRAMME

This corrigendum is being issued to replace Annex II of the World Bank work programme.

ARGENTINA

1. Background

The Bank understands from the GOA that it proposes to embark on an a program for accelerated phase out of controlled substances. The GOA expects to draw on assistance under the IMFMP in implementing this program.

2. Work Program Goals

Work on Argentina will be initiated in CY92. Goals of the CY92 work program include: (i) agreement with the government on a country work program; (ii) completion of a baseline study; (iii) completion of a country program; and (iv) establishment of an investment fund for controlled substance phaseout. The following program description is tentative pending review with the Government.

3. Collaboration with UNDP and UNEP

The Bank will consult with UNDP to obtain results of UNDP's sector reconnaissance survey of substances controlled under the Montreal Protocol in Argentina. Efforts will be made to benefit from the UNEP regional MP workshop which is scheduled for May 1992, in Caracas, Venezuela.

4. Country Program

Country Program Formulation will begin with a country work program mission scheduled for March 1992. The mission will review with the Government the status of its program for meeting its responsibilities under the Montreal Protocol and its requirements for assistance channelled through the Bank.

A baseline study to underpin the CP is scheduled to be undertaken with GOA in June 1992. The Bank mission will work with Government and industry to (i) collect baseline information on controlled substances flows in Argentina, (ii) assess the existing policy and institutional framework for controlled substance control, (iii) develop an outline for the CP with the Government and a plan for its preparation, including workshops for information exchange with industry and other interested groups.

A mission scheduled for October 1992 will participate in workshops to (i) disseminate detailed technical information to the various controlled substance-using sectors on the latest technological developments in each of the use sectors; (ii) disseminate information on the science and effects of stratospheric ozone depletion, and (iii) discuss overall policy, incentives, institutional, regulatory and legislative issues with industry, consumer groups, NGOs, environmental groups and other interested parties to enable a clear understanding of the problem.

A follow-up mission in January 1993 will present and discuss a draft CP, and identify an investment operation.

5. Project Cycle

Project Preparation is scheduled to begin formally in March 1993 leading to appraisal of an investment fund operation in June, 1993.

BRAZIL

1. Background

The Interministerial Work Group (GTO) was officially constituted by a "portaria interministerial" of 4 October 1991 to (i) prepare the Country Program for MP implementation; (ii) supervise national compliance with MP phase out norms; and (iii) establish procedures for utilization of the MP Interim Trust Fund. The GTO is coordinated by the Economic Secretariat of the Min. of Economics, Finance and Planning (MEFP), and is composed of representatives of the following organizations: National Planning Secretariat of MEFP, Environmental Secretariat of the Presidency (SEMAM), Sec. of Science and Technology (SCT), and the Min. of External Relations (MRE). Participating in the work of the GTO as advisors, though not official members are representatives of industry user groups (e.g. ABINEE, ABRVA, ABIPLAST and others), IBAMA, BNDES, FINEP, and other governmental and non-governmental groups, as required. The Dept. of Industry and Commerce (DIC) of MEFP is the Executive Secretariat of the GTO.

The following work program for Brazil for CY92 is tentative, pending further interactions with, and approval by, appropriate Government authorities.

2. Goals of the Work Program

The major goals of the work program for CY92 are: (i) definition of a national controlled substance phaseout strategy, to include; (ii) preparation of a Country Program; (iii) preparation of the Bank's freestanding MP ODS Elimination Project, which is tentatively programmed for presentation to the MP Executive Committee and appraisal in May/June 1992; (iv) continuing dialogue with industry to identify investment and substitute technology development sub-projects which can be financed through the ODS Elimination Project grant funding line; and (iv) conduct of substitution/reduction technology workshops by the UNDP.

3. Collaboration with UNDP and UNEP

The Bank has been in consultation with the UNDP consultants who carried out an earlier project identification mission to Brazil. There will also be on-going consultations with UNDP on its planned technology workshops. Efforts will be made to benefit from the UNEP regional MP workshop which is scheduled for May 1992, in Caracas, Venezuela.

4. Country Program

A draft country study, "The Costs to Brazil of Complying with the Montreal Protocol" was prepared in 1990 by USEPA, in conjunction with IBAMA, and Brazilian industrial ODS users. This report is the based document for preparation of the Country Program. A working group of IBAMA and DIC/MEFP technicians has produced a first draft Country Strategy document for discussion during a Bank mission in February 1992, at which time program priorities, resource requirements and a Country Program planning schedule will be decided.

5. Project Cycle

Activities which are now taking place or are in the planning stage include review /revision of the country study and preparation of a draft Country Program, reaching agreement with Government on identified project activities. The MP ODS Elimination Project summary will be presented to the EC for approval in May 1992.

A project preparation/identification mission is currently in the field and will provide clear definition of

components of proposed investment operations, which will be included in the Bank's Progress Report to the next meeting of the Executive Committee.

CHILE

1. Background

There are regular Bank-financed projects under preparation in Chile which include components of a controlled substance phase-out program which would not qualify for assistance under the IMFMP. These include the Environmental Institutions Development Project, and the follow-on Environmental Management Investment Project. It is proposed that each of these Bank projects include components funded by the IMFMP. These components would be prepared and appraised in parallel with their Bank-associated projects.

2. Work Program Goals

The overall goals of the Bank's activities over the next two years in Chile are to: (a) assist Chile in the development of a strategy for the phasing out of controlled substances; (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.

3. Collaboration with UNDP and UNEP

There are no specific plans at this time for collaboration with UNDP or UNEP in preparation of a work program for Chile. Efforts will be made to benefit from the UNEP regional MP workshop which is scheduled for May 1992, in Caracas, Venezuela.

4. Country Program

Country Program Formulation will proceed with a combined CP and investment project formulation mission in February - March, 1992. The objective of the mission will be to initiate, with CONAMA, preparation of a strategy for controlled substance phase-out, including a definition of the technical, policy and institutional issues and strategy. In addition, it would identify projects which could be supported under the Protocol. 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 CP paper, and on the respective contributions from each of these groups to the paper. It is expected that local consultants supported by specialized international experts would be contracted to assist CONAMA. A draft CP is expected to be completed by the end of 1991.

A final CP/project preparation mission is scheduled for May, 1992. This mission would discuss the draft CP 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. The mission would also include technical experts who would prepare potential projects which had been identified by the earlier mission.

5. Project Cycle

Provision has been made for an investment project appraisal for the first phase of investment project interventions during the second half of 1992. Projects to be appraised will be identified in the February-March mission. Regular supervision of these projects will be underway early in 1993. An initial project is presently envisaged in the following sector:

- * Sterilization conversion

CHINA

1. Background

China signed the Montreal Protocol on June 14, 1991 and completed the ratification process in 1991. At its June 1991 meeting, the Executive Committee authorized funds for the Bank to engage the GoC in a dialogue on a work program for CY92, including preparation of a country program and identification of a series of investment interventions. A UNDP study was published in May, 1990, which identified some specific short and medium-term controlled substance phase-out projects, although not all the sub-sectors were fully covered. The National Environmental Protection Agency (NEPA) is the focal point in China for Protocol implementation activities and has requested the UNDP to proceed with the second phase of the feasibility study. UNDP fielded missions in September/October, 1991, to advance preparation of the China Country program.

2. Work Program Goals

The Bank is undertaking a dialogue with appropriate Government authorities in China to agree on the details of a work program and budget and projects identified in the just-completed feasibility study undertaken by the UNDP. As far as possible, the Bank intends to appraise specific investment projects under either Bank environment or industry-related investment operation now in the preparation stage. The possibility of combining a controlled substance proposal with the expansion or modernization of industries will be explored.

3. Collaboration with UNDP and UNEP

UNDP will continue to have the leading role in the dialogue with GoC, including providing financing for the completion of the previous work, plus feasibility studies for specific short-term investments. UNDP will also arrange financing for the proposed country program. TOR for both studies have been agreed between UNDP, NEPA and the World Bank. UNDP and NEPA will identify and select the consultants for both endeavors but they welcome further Bank participation in the development of the two studies. The second phase of the previous work will be carried out with UNDP funds (UNDP China has a US\$300,000 unspent allocation for this purpose). Financing of the Country Program (CP) will possibly require a new project with either UNDP, bilateral, or IMFMP financing of US\$500,000-600,000.

4. Country Program

Country program formulation proceeding under UNDP's supervision will require about four months to complete and should be prepared by June 1992. With the understanding that the CP is under preparation, the Bank intends to proceed in parallel with preparation of the first \$15 million investment project funding.

5. Project Cycle

Project identification began under the CY91 work program with a mission planned for November/December, 1991. The purpose of this mission was to undertake a dialogue with appropriate Government authorities in China to agree on the details of the work program and budget for an investment project of \$15 million. Sufficient progress has been made on UNDP-supported feasibility studies underpinning the proposed investment fund to enable project documentation to be prepared to enable the project to be submitted to the Executive Committee for approval in February 1992.

The proposed project will include the following components:

- * Halon 1211 - Fire Extinguisher blend development project
- * Halon 1211 - Extinguisher conversion to ABC and AFT powder project
- * Halon 1211 - Production project
- * Aerosol Foam and Hair Spray projects
- * Polyurethane Foam Insulation project
- * Polystyrene and Polyethylene Packaging project
- * Refrigeration and A/C Compressors conversion to HCFC-22 project

Subject to Executive Committee approval of the project submitted in February, project appraisal should proceed in May, 1992. The required project documentation will be provided separately.

ECUADOR

1. Background

To conform with the Protocol's stipulations at the earliest possible time, the Government assigned responsibility to prepare a phase out program to the environmental units of the Ministry of Foreign Relations and of the National Development Council (CONADE). Since then, and under the leadership of CONADE an inter-ministerial committee has been established to assist in the preparation of the program. Representatives of the private sector, scientific community and of non-governmental organizations (NGOs) participate in the committee.

In March 1991 CONADE, requested assistance from the World Bank and the United States Environmental Protection Agency (EPA) to prepare the proposed program. Since then a base line study has been completed which was the basis for the preparation of a proposed country program (CP) for implementing the Montreal Protocol in Ecuador. A draft report of the CP in English is nearly complete, including the identification of 12 potential projects.

As a result of a joint Bank/EPA mission in August, GOE agreed to establish the institutional and legal framework for implementation of the proposed program. The Ministry of Industry (MICIP) has been assigned full implementation responsibility. Cooperating public sector entities would be the Finance Ministry, Central Bank and the Ministry of Health. To determine the organizational structure of the implementing unit within the MICIP a Bank consultant carried out an institutional capacity analysis in October 1991. The report included proposed draft legal

instruments (a presidential and a ministerial decree). These documents served to complete the program document sent for review and clearance by government authorities in January 1992. It is expected that GOE would submit the Program to the Executive Committee in time for the February 28, 1992 meeting.

Various activities will be carried out in the next three months to set the stage for CP implementation. These will include: official establishment of the executing unit within the MICIP, enactment of official decrees, seminars for industry representatives, training for staff of the implementing agency, and initiation of a public awareness campaign. UNDP has agreed to support all training activities.

Given the relevance of aerosols as main users of CFCs the GOE's program proposes to start phase out activities with a project to replace these substances in the aerosol sector. EPA has offered to support preparation of a feasibility study to determine costs and execution timetable. Pre-investment studies for other projects would be agreed with GOE authorities during a proposed March 1992 mission.

2. Work Program Goals

The Government of Ecuador (GOE) wishes to quickly implement projects designed to phase-out the use of controlled substances and is currently preparing the necessary legal framework mandating the phaseout of controlled substances and putting the necessary institutional structure in place. The work program envisages an 8-year time span of two separate phases. Phase one is to be implemented over a 4-year period (1992-95) and have a two-pronged approach. The first would aim at putting in place the institutional and legal framework. The second would concentrate on phasing out the use of controlled substances in the aerosol and refrigeration sectors which together represent about 80 % of the total usage of CFC-11 and CFC-12. The second phase would include incorporating projects to phase out controlled substances from the remaining sectors. Thus, it is expected the entire effort would accomplish total phase out before the year 2000.

3. Collaboration with UNDP and UNEP

Bank mission have kept the UNDP office in Quito informed about the progress of the program. Efforts will be made to benefit from the UNEP regional MP workshop which is scheduled for May 1992, in Caracas, Venezuela.

4. Country Program

The Country program and the underpinning baseline study were completed by the GOE during CY91.

5. Project Cycle

A first round of project preparation activities began with the assistance of a Bank mission during October 1991. The mission and the GOE reached preliminary agreement on project selection and conceptual design. The Country Program envisages an eight year program, divided into two phases of four years each. Phase I includes provision for policy and institutional framework development and training support, as well as proposals for funding initial projects in aerosol hydrocarbon conversion and refrigeration (both domestic and commercial) recycling, and adoption of water-based manufacture (85 % reduction in CFC use) of refrigeration foam insulation. Discussions with GOE also included requirements and timetable for establishing supporting policy and institutional framework. Each of the proposed projects would include seminars, workshops, training, and technology demonstration activities to ensure rapid replication of the project throughout Ecuador. A local project coordinator would be hired half time for a period of three years to oversee the implementation of the projects in Ecuador after the program has been approved.

The following projects have been identified:

- * Control and environmental affairs unit support.
- * Six (6) aerosol plant conversions to hydrocarbons.
- * Reduction of CFC-11 in refrigeration foam insulation.
- * CFC refrigerant conservation & training.

EGYPT

1. Background

At its June meeting, the Executive Committee endorsed Egypt's proposal to prepare, with Bank assistance, a model Country Program. The GOE indicated that the Egypt Environment Affairs Agency (EEAA) would establish a task force of Egyptian experts to assist in the coordination of this effort. GOE also informed the Executive Committee that it would establish a Program Implementation Office to carry out short and long-term program strategies, associated action plans, conduct workshops, training, and undertake project developments/investments. Finally, the Executive Committee approved funds for UNDP to undertake pre-investment feasibility studies for reduction of controlled substances in 2 small firms not identified for interventions within the Bank's work program for Egypt.

The Government of Egypt is committed to support a program for phasing out controlled substances. The Ministry of Industry has issued a ministerial decree banning the use of CFCs in the aerosol industry as of January 1991.

2. Goals of the Work Program and Project Identification

The purpose of this work program is to strengthen Egyptian capacity to consolidate data collection on controlled substances, identify and select alternative technologies which may be deployed in implementing the Montreal Protocol, and to demonstrate CFC conservation in the refrigeration industry.

The work program will be coordinated by EEAA which will support project identification and preparation.

3. Collaboration with UNDP and UNEP

The work plan has been developed in collaboration with both UNEP and UNDP. In July 1991, at the invitation of the Government of Egypt, the Bank assisted with the preparation of a Country Program for Egypt, a pre-requisite for funding of projects by the Multilateral Fund. This Country Program is intended to serve as a model for other developing countries. The demonstration projects identified in the Country Program could be administered by the Bank as part of an investment project in ODS reduction funded by the IMF. Otherwise, UNDP could include them within its work program for technical assistance activities in Egypt, although final implementation arrangements have yet to be finalized. Total cost of these demonstration projects is estimated at approximately \$370,000.

4. Project Cycle

Project preparation based on the proposed CP action plan is scheduled for April, 1992. Financing and implementation arrangements will be agreed during the mission. The mission will include a reclamation specialist enabling a pre-feasibility study to be made for a regional CFC reclamation facility for possible funding through the Bank under the IMFMP.

Initial project identification:

- * Regional CFC reclamation facility pre-feasibility study.

Further project preparation activities are planned for the second half of 1992 consistent with a program of short-term controlled substance phase-out actions agreed between the Bank and EEAA.

IRAN

1. Background

The World Bank is presently maintaining a watching brief in the event that investment projects are identified which require Bank assistance.

2. Goals and Status of Work Plan and Project Identification

The purpose of the work plan is to identify consumption and usage patterns and define the best strategy for the phaseout of ODS.

3. Collaboration with UNDP and UNEP

The Bank intends to follow-up with UNDP to ensure that information obtained by their planned reconnaissance study in Iran, is obtained in a timely manner to better inform the planning of possible Bank activities. There are no specific plans for collaboration with UNEP at this time.

4. Country Program

Upon confirmation by Iran, a mission will be sent to Iran to carry out an ODS assessment, prepare the Country Program, and identify potential projects. Project appraisal is anticipated in early 1993.

JORDAN

1. Background

The planned World Bank mission to Jordan in October/November 1991 will help develop a country program for Jordan and define specific project proposals for assisting the controlled substances phase-out.

2. Goals and Status of Work Plan and Project Identification

The purpose of this work plan is to strengthen Jordan's capacity to introduce CFC conservation measures and identify and apply technical alternatives consistent with Montreal Protocol implementation.

3. Collaboration with UNDP and 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. There are no specific plans for collaboration with UNDP or UNEP in work program implementation.

4. Country Program

Country program formulation and preparation was begun with a reconnaissance and project identification mission in October, 1991, which collected information on controlled substance use, current and future growth; obtained previous studies on controlled substance utilization and substitutes and visited major industrial firms that are using controlled substances. The mission will work with the Jordanian Environment Agency on the outline elements of the Country Program (CP) and will identify potential projects that will assist Jordan in reducing CFC.

5. Project Cycle

Project preparation will proceed during a proposed April, 1992, identification/preparation mission. The mission will discuss the draft of the CP that was prepared following the October 1991 mission. The project preparation phase will also be finalized.

MALAYSIA

1. Background

The Department of Environment (DE) has prepared the Country Program and project feasibility studies and is the lead agency within Government for Montreal Protocol implementation. As opposed to relying on an implementing agency, the Government of Malaysia has taken full responsibility for completing development of the Country Program (CP). A Bank mission in September, 1991, assisted the Government with the definition of a project proposal. The GOM has requested another Bank mission during February 1992 to evaluate a mobile air conditioning recycling project and a halon recovery and recycling center.

The Bank has proposed to the Government that preparation of the CP and feasibility studies for the short-term action plan proceed in parallel.

2. Work Program Goals

The major goal is to assist the Government in establishing and implementing an effective controlled substance phase-out program.

3. Collaboration with UNDP and UNEP

There are no specific plans at this time for collaboration with UNDP or UNEP in preparation of a work program for Malaysia. The UNEP/SIDA CFC Project in Bangkok also promotes controlled substance phase-out activity in Malaysia.

4. Project Cycle

Provision has been made in the work program for assistance to the GOM, as required, with ongoing project preparation and processing through to effectiveness of its proposed investment projects. As a consequence, in part, of the anticipated results of the February 1992 Bank mission to Malaysia, a Phase I group of projects is expected to be presented to the Executive Committee for consideration of a \$3 million line of credit at its February 1992 meeting. A second Phase II set of project proposals and another line of credit of \$10 million will be ready for presentation to the Executive Committee in April 1992.

Initial projects proposed by Malaysia include:

- * Mobile air conditioning recycling demonstration project.
- * Halon recycling project.

MEXICO

1. Background

Mexico has actively participated in the discussions and subsequent negotiations leading to the Montreal Protocol and currently chairs the Executive Committee of the Interim Multilateral Fund of the Montreal Protocol. It is fully committed to phase out the use of controlled substances. The Secretario de Desarrollo Urbano y Ecologia (SEDUE) has succeeded in convincing the two CFC producers and seven industrial users to sign voluntary agreements to reduce production and consumption of controlled substances, implement recycling and other conservation measures and, in some cases, adopt alternative technologies. Several 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 assistance from Camaro Nacional de la Industria de la Transformacion (CANACINTRA), has also identified six projects to reduce or recycle CFCs. Three consist of implementing recycling technologies and the rest concern reduction of controlled substance 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 controlled substance consumption to some extent. Two of these (CFC 12 recycling from MACS and aerosol propellants safety program) have been processed in the World Bank for financing by the Interim Fund and the project documents have been sent to Mexico for approval.

SEDUE's ozone protection effort consists of periodic oversight by two senior officials and a programs coordinator. USEPA has been working with SEDUE to assist in their Country Program (CP) which is being finalized for submission to the Executive Committee's approval, and in funding the first three years of a technical center. The Mexican industry has made significant in-kind contributions to these efforts.

2. Work Program Goals

The overall goal of the Bank's activities over the next three years in Mexico is to assist the Government in implementing its country program for phasing out controlled substances by the year 2000. Specifically the Bank will: (1) support Mexico's project preparation and implementation effort, (2) help strengthen Mexico's institutional capabilities to manage ozone protection activities and complement its current policy framework with measures which would ensure that the controlled substance phase-out would be done efficiently and at the lowest possible cost to Mexican industry, and (3) finance well-conceived ozone protection projects.

3. Collaboration with UNDP and UNEP

UNDP and UNEP are collaborating with the Bank in assisting Mexico in developing its program. UNDP has been asked by the Mexican Government to provide technical options information, and institutional strengthening and technical assistance will be a special focus of UNDP activities in Mexico. The Bank is continuing to work with the Government in fostering an accelerated investment funding mechanism in Mexico, while UNEP is supporting Mexico in developing replacement technology information for dissemination to other Spanish-speaking countries. Efforts will be made to benefit from the UNEP regional MP workshop which is scheduled for May 1992, in Caracas, Venezuela.

4. Project Cycle

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 controlled substance consumption, growth forecasts, demand for controlled substance by end-use, technology used in these sectors, potential alternative technologies and substances, and first order costs of phasing out controlled substances by the year 2010. Upon completion of this study, Mexico began discussions with industry to identify specific controlled substance reduction projects, described in the Mexico Country Program.

The second IMFMP-assisted project in Mexico, for which US \$ 4 million has been approved on the condition that all sub-projects larger than \$500,000 would be presented for approval by the Executive Committee and more detailed descriptions would be presented to the EC at its next meeting in February 1992, will make provision for funding a number of sub-projects included in the Country Program.

Project appraisal for the Ozone Protection Policy and Institutional Strengthening Project is scheduled for March, 1992, assuming the \$4 million is fully approved by the Executive Committee in February 1992. Project appraisal mission objectives include to: (i) discussion and decisions whether to use the marketable permit system; (ii) finalize the operational features and agree on the specific arrangements for its implementation if Mexico agrees to use the marketable permit system; and (iii) agree with the Government on the conditions and financial arrangements for passing on the funds to industry beneficiaries.

Project negotiations are scheduled for May, 1992, and the project should be effective by June, 1992.

The following projects have been identified as likely to be financed under the \$4 million line of credit:

- * Centralized CFC Recycling and Material Handling System.
- * Expanded Use of Recycling in MACS.
- * Chiller Purge Device Conversion.
- * Low-CFC Foam Insulation.
- * Polystyrene Foam Conversion from CFC to HCFC.
- * Training and Plant Conversion in the Electronic Industry.

Project supervision activities will begin in July, 1992, for the First Montreal Protocol to Mexico (CFC-12 recycling from MACs and aerosol propellants safety program) and by year-end will include the Ozone Protection

Policy Project. Supervision missions in late 1992 will assess the effectiveness of assistance to strengthen SEDUE and the quality of NAFIN's sub-project review and financing to draw lessons for the design and implementation planning for proposed future projects of this kind in Mexico and elsewhere.

NIGERIA

1. Background

The Government of Nigeria (GON) has yet to develop a policy and institutional framework for phase-out of controlled substances. In the Bank's CY91 work program, provision was made to assist the GON with preparation of a country program. However, due to unforeseen delays the substantive part of this assistance must now take place in CY92. A Bank-financed Environmental Management Project will strengthen the capacity of the Federal Environment Protection Agency (FEPA) in Nigeria to formulate and oversee implementation of environmental management plans and policies and will complement assistance proposed under the IMFMP for Montreal Protocol implementation.

2. Country Program and Project Identification Activities

Studies are planned during the period from March to June, 1992, to provide the institutional background and sector foundation for the preparation of a country program (CP) and to recommend institutional and technical strategies and investments for CFC and other controlled substance reduction, substitution, and elimination. Starting with a census of all major industrial users of controlled substances prepared by the Federal Environmental Protection Agency (FEPA), a detailed enterprise level technical assessment will be made of major industrial users of controlled substances and a sample of the retail air conditioning repair and maintenance operations. The focus of the assessment will be to compile a profile of controlled substance users for each of the major applications to include inter alia substitution/reduction measures already taken or possible at the individual enterprise level, and feasible CFC elimination and conservation investments in the air conditioner assembly and repair/maintenance sub-sectors.

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 (see para 3. below). The proposed technical and institutional Country Program studies will be carried out by experts in the principal applications of controlled substances, particularly CFCs. The national counterpart supervising agency will be FEPA.

3. Collaboration with UNDP and UNEP

The work program 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. UNDP and the World Bank have agreed to coordinate planning for an inventory of CFC-consuming industries which would complement Bank-managed technical studies, project preparation activity and CP formulation. UNDP is also coordinating proposed UNIDO work on technical alternatives for phase-out of CFCs in Nigeria and will liaise with the Bank to avoid duplication. UNDP, in cooperation with UNEP, are also considering conducting an MP-related industrial seminar in Nigeria in early 1992. UNEP's scheduled All-Africa Workshop in Kenya, in September 1992, will benefit from the results of the proposed Bank-assisted technical studies which will be completed by then.

4. Project Cycle

Based upon data obtained during a Bank reconnaissance mission in CY91, we anticipate that initial

projects will be identified in the following sectors:

- * Aerosol conversion to hydrocarbons.
- * Low or non-CFC foam plant conversions.

PHILIPPINES

1. Background

A country study funded by the EEC and carried out by COWIConsult (Danish), was completed in May 1991. The EEC report recommends a rapid phase-out of controlled substances but does not include all costs and benefits. The Government is requesting the EC to provide financing for preparing the CP and UNDP to provide technical assistance to support training activities. The Government has requested the Bank to prepare and implement an investment program.

2. Work Program Goals

The major goal is to assist the Government in establishing and implementing an effective controlled substance phase-out program. The Government has appointed the Department of Environment and Natural Resources (DENR) as Executing Agency for the engineering design of short-term investment projects and for preparation of the Country Program. It is proposed that the UNDP join the Bank in its appraisal missions.

3. Collaboration with UNDP and UNEP

The Bank and UNDP have collaborated in formulating the work program for the Philippines and will undertake joint missions for identification of technical assistance requirements for Protocol implementation.

4. Project Cycle

Depending on the rate of Government implementation, pre-feasibility studies initiated in 1991 will result in investment projects being presented to the Executive Committee for approval at its first or second meeting in 1992. Feasibility studies are currently scheduled for completion by April, 1992. A joint UNDP/Bank mission to identify technical assistance needs consistent with proposed investments will be undertaken. Project appraisal for EC-approved projects is planned for August, 1992.

Initial projects anticipated to follow from the pre-feasibility engineering studies, will be identified in the following sectors:

- * Mobile air conditioning (MAC) recovery and recycling.
 - * Non-ODS technology conversions in solvent applications.
 - * ODS solvent recovery and recycling.
-

THAILAND

1. Background

The responsibility for compliance with the Protocol provisions has been allocated to the Ministry of Industry (MOI) and the National Environmental Board (NEB) provides technical support for the controlled substance phase-out program.

A UNEP/SIDA project has been initiated for the control of CFCs and other controlled substances.

A Country Program (CP) and three pre-investment studies are under preparation. 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 controlled substance phase-out program.

2. Work Program Goals

The overall goal is to assist the government in establishing and implementing an effective controlled substance phase-out program.

The three feasibility studies, namely, (1) auto A/C CFC recycling, (2) solvent recycling, and (3) CFC substitution in solvent applications, are designed to develop specific investments in the main CFC 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. Collaboration with UNDP and UNEP

The government has requested assistance from the World Bank in the formulation of the CP, as well as for three feasibility studies to develop a short term investment plan. The Government has requested UNDP to finance a separate proposal for technical assistance to local institutions responsible for developing and implementing the controlled substance phase-out program. The UNEP/SIDA project has an overall coordinating role for controlled substance activities in Thailand.

4. Country Program

A draft of the country program should be complete by June 1992.

3. Project Cycle

Project preparation began in 1991 and culminated in a Bank mission to Thailand in late September which defined a preliminary first tranche of investments for submission for Executive Committee approval in early 1992. The engineering design of these projects is scheduled for completion by April, 1992.

Pending Executive Committee approval project appraisal will be completed in June, 1992 leading to project effectiveness in the second half of 1992.

Initial projects anticipated to follow from the pre-feasibility engineering studies, will be identified in the following sectors:

- * Mobile air conditioning (MAC) recovery and recycling.
- * Non-ODS technology conversions in solvent applications.
- * ODS solvent recovery and recycling.

TUNISIA

1. Background

The Government of Tunisia (GOT) is committed to support a program for decreasing the use of CFC in the aerosol industry and an eventual phase out of CFC in the foam industry. The Agence Nationale de la Protection de l'Environnement (ANPE) is the local agency for Montreal Protocol implementation.

2. Goals and Status of Work Plan and Project Identification

The goals of this work plan are: (a) to strengthen Tunisian capacity to implement the Montreal Protocol through both technical and policy interventions; and (b) to demonstrate the CFC conservation and recycling options in industry. Because the local CFC market and the scale of individual end-uses are small, Tunisia is ideally suited to serve as a testing ground for policies and programs to conserve, reduce and eventually eliminate CFC uses in other small developing countries.

3. Collaboration with UNDP and UNEP

There are no specific plans for collaboration with UNDP or UNEP in preparation of a work program for Tunisia.

4. Country Program

A mission is planned for February, 1992, to prepare a CP for Tunisia, including an action plan to implement the CP feasibility studies for projects recommended to assist the refrigeration, foam and aerosol sectors in the transition from CFCs to acceptable alternatives. The CP will be undertaken under contract with a consulting company, Cowiconsult. The company will begin work in February, 1992 and the draft CP reviewed by the Bank, including technical specialists, with Government and local industry representatives in May, 1992. Details of project proposals will be discussed and an implementation plan will be initiated.

5. Project Cycle

Project interventions under consideration with Government in parallel with preparation of the CP include the following:

- * possible application of a modified foam insulation system in the refrigeration industry.
 - * assistance with establishment of 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.

- * demonstration of use of non-CFC blowing agents in the manufacture of flexible foam.
- * assistance to aerosol producers to convert their plants from CFC's to LPG.

Project preparation would proceed in the period July - September, 1992, resulting in presentation to the Executive Committee of projects greater than \$500,000 for approval at a meeting in the latter half of 1992. Projects approved by the EC should become effective before the end of 1992 and be under implementation early in 1993.

TURKEY

1. Background

The Government of Turkey has initiated activities for phasing-out controlled substances consistent with implementation of the Montreal Protocol. The Ministry of Health has issued a ministerial decree banning the use of CFC as propellants for insecticides. The Turkish refrigeration industry has expressed enthusiasm for the transition to CFC-free substances in order to maintain a competitive position in the export market. The Under-Secretariat for the Environment, which is the coordinating agency for the implementation of the Montreal Protocol, is preparing to recommend further actions for the phase-out of controlled substances. A Bank mission to Turkey in September 1991 initiated action on a Country Program.

Investment project activities will be coordinated by the Under-Secretariat of Treasury and Foreign Trade, World Bank Projects Department.

2. Goals and Status of the Work Plan and Project Identification

The overall goals of the Bank's activities in Turkey are to:

- (1) avail Turkey of assistance under the IMFMP for its efforts in phasing-out controlled substances; and
- (2) strengthen Turkey's institutional and human resource capacity to manage specific ozone protection activities.

This work plan makes provision for strengthening Turkish capacity in collecting and utilizing for policy and planning data on the use of CFCs and other controlled substances, providing information on feasible alternatives to controlled substances, demonstrating options for conservation and recycling, and aiding the prompt implementation of CFC free technologies for refrigerator manufacture as they are commercially proven.

3. Collaboration with UNDP and UNEP

The Government of Turkey has requested the World Bank to assist it in formulating a work program. It is agreed that UNDP will assume responsibility on all public awareness and non-project related training activities.

4. Country Program

A mission is planned for March, 1992, to discuss a Turkey Country Program draft which was prepared following the October 1991 mission.

5. Project Cycle

The March, 1992, mission will finalize the program for CP implementation and initiate preparation for all short term project proposals included in the CP. Projects now under consideration include to:

- * Demonstrate the use of a modified foam insulation system in an established refrigerator design at a major refrigerator manufacturing facility and when commercially proven, HFC-134a as an alternative refrigerant;
- * Establish a recovery and reclamation program in a major domestic refrigerator service company to improve in-shop service procedures and train technicians in conservation of CFCs.
- * Recovery and reclamation of CFC-12 from household refrigerators being repaired in a refrigerator production facility.

Specific projects of this kind in excess of \$500,000 will be presented to the Executive Committee for approval in 1992.

VENEZUELA

1. Background

An ad hoc group, coordinated by the Ministry of the Environment and Renewable Natural Resources (MARNR), with the participation of the Ministry of Finance (Hacienda), Ministry of Industry and Commerce, Ministry of External Relations, and both state and private industry, is taking an active part in country program preparation. It is planned to replace this ad hoc group with a legally constituted autonomous unit, perhaps in the form of a foundation, which will be the national coordinating unit for implementation of the Protocol. It is intended that operating expenses of the unit will be supported in part by the Trust Fund. Venezuela is a member of the Executive Committee of the MP. MRE is responsible for coordinating Venezuela's contact with the Bank, UNEP, and UNDP for Protocol Implementation.

The GOV has already instituted a series of measures for the purpose of monitoring and regulating controlled substances production and consumption. Among these are a reclassification of tariff codes to permit classification by individual controlled substances; requirement of prior approval by the MARNR for importation; prohibition beginning in 1992 of use of controlled substances in nonessential uses for which non CFC substitutes already are commercially available; and active control of production and consumption to maintain annual consumption below the 0.3 kg per capita level.

Government has also organized, in conjunction with the major trade and producer associations, a series of seminars on alternatives for reducing and substituting for CFC use in refrigeration and air conditioning. The seminars are planned for May 1992, pending confirmation of UNDP support of guest industry experts. The producer associations have already developed the technical agenda for the workshop and it will include a review of the latest developments in commercial scale HFC 134a technology.

The following work program and budget for Venezuela are presented as indicative, pending further review and approval by Government authorities.

2. Work Program Goals

The work program for CY92 will build on current or planned program activity. The major goals of the CY92 work program include: (i) definition of a national controlled substance phase-out strategy; (ii) preparation of a country program; (iii) establishment of a freestanding MP ODS Elimination Project, tentatively programmed for presentation to the MP EC and appraisal in May/June 1992; (iv) continued dialogue with industry to identify investment and substitute technology development subprojects which can be financed through the grant funding line; and (v) conduct of seminars/workshops on substitution/reduction technology in collaboration with UNDP.

3. Collaboration with UNDP and UNEP

The GOV intends to make use, as required, of assistance from the Bank and the Trust Fund, the UNDP, and USEPA, and these agencies will collaborate in providing such assistance. UNDP has been requested to provide support to MARNR and Hacienda to mobilize expertise to train customs officials and agents to effectively track controlled substances. Efforts will be made to benefit from the UNEP regional MP workshop which is scheduled for May 1992, in Caracas, Venezuela.

4. Country Program

The "National Study on Consumption Patterns for CFC's and Halons; Feasibility of Substitution and Necessary Resources" will serve as the basis for preparation of a national CFC phaseout strategy and country program. The USEPA will assist MARNR in the estimation of costs and alternatives for implementation of a country program. In the meantime, MARNR has resumed contacting CFC users in the foam and solvents sectors in order to improve the data base for revision of the national study.

5. Investment Project Actions

Investment sub-project preparation is currently focussed on a Venezuelan producer of molded food packaging containers produced from blown polystyrene sheet in a process which uses CFC 12 as a blowing agent. GOV will be requesting IMFMP assistance for the modifications required to substitute CFC 12 as the blowing agent. Both butane and carbon dioxide foaming agent technologies are being studied. The sub-project will be officially transmitted to the Bank in March, 1992, with a view to presenting the project for Executive Committee approval in the second quarter of 1992. The expected project cost is about \$600,000-700,000.

Ongoing investment project identification actions include MARNR-initiated contacts with pre-selected CFC-users in the aerosol and foam industries to inform them of the availability of IMFMP financing and encourage them to develop a pipeline of eligible projects. Local representatives of American compressor manufacturers have recently begun to submit technical proposals for HFC 134a technology for commercial air-conditioning systems. This development will be monitored closely for the purpose of identifying and quantifying incremental costs eligible for Trust Fund support. In-country sub-project preparation, evaluation and review will be coordinated by the established Implementation Unit responsible for administration of the CP. Sub-projects will be financed on a grant basis.

A project preparation/identification mission is currently in the field and will provide clear definition of components of proposed investment operations, which will be included in the Bank's Progress Report to the next meeting of the Executive Committee. At the present time, initial projects are anticipated to include:

- * Commercial air conditioning conversions to HFC-134a technology.
- * Non-ODS conversion of foam packaging container facility.

YUGOSLAVIA

[All work in Yugoslavia has been temporarily suspended pending return of political stability. Provisions are being made to resume work on the Country Program in the fourth quarter of 1992]

1. Background

The Federal Ministry of Health is responsible for the implementation of the Protocol. The Under-Secretariat for the Environment, which is the coordinating agency for implementation of the Montreal Protocol, has already included in its national environment strategy a program for phasing out controlled substances.

2. Work Program Goals

The objective of the work plan is to support the Yugoslav Government and industry in conserving, recycling and phasing out CFCs and other controlled substances and to apply and promote the use of CFC-free technologies in the refrigeration, aerosol and foam sectors wherever feasible.

3. Collaboration with UNDP and UNEP

There are no specific plans agreed for collaboration with UNDP or UNEP in preparation of a work program for Yugoslavia.

4. Country Program

Terms of reference (TOR) for the Country Program were issued and a consultant was selected (Cowiconsult, of Denmark) to carry out the work which will only resume upon the return of political stability.

5. Project Cycle

Projects under consideration in Yugoslavia include the following:

- * 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-CFC blowing agents in the foam and polystyrene manufacture.
-

Either in parallel or as part of the proposed investment operations the following technical assistance activities are proposed by UNDP as technical assistance projects:

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

The schedule for project preparation and appraisal following the end of civil unrest.
