MULTILATERAL FUND UNDER THE MONTREAL PROTOCOL

MEMORANDUM AND RECOMMENDATION

OF THE DIRECTOR

FOR COUNTRY DEPARTMENT I

OF THE

INTERNATIONAL BANK FOR

RECONSTRUCTION AND DEVELOPMENT

TO THE

REGIONAL VICE PRESIDENT, EAST ASIA AND PACIFIC REGION

ON A

PROPOSED OZONE PROJECTS TRUST FUND GRANT

IN THE AMOUNT EQUIVALENT TO US$15.049 MILLION

TO

THE REPUBLIC OF THE PHILIPPINES

FOR A

"MONTREAL PROTOCOL OZONE DEPLETING SUBSTANCES
PHASE OUT INVESTMENT PROJECT"

SEPTEMBER 27, 1994

Industry and Energy Operations Division
Country Department I
East Asia and Pacific Region

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CURRENCY EQUIVALENTS  
(As of March 1993)

Currency Unit = Peso (P)

US$0.04  =  P1.00
US$1.00  =  P0.25

ABBREVIATIONS AND ACRONYMS

CP       Country Program (for ODS Phase Out)
DENR    Department of Environment and Natural Resources
ECC     Environmental Compliance Certificate
EMB     Environment Management Bureau
FA      Financial Agent
GEF     Global Environment Facility
LBP     Land Bank of the Philippines
MAC     Mobile Air-conditioning
MF      Multilateral Fund of the Montreal Protocol
MP      Montreal Protocol
MT      Metric Tons
MFEC    Multilateral Fund Executive Committee
ODS     Ozone Depleting Substances, or Controlled Substances as defined by the Montreal Protocol
ODP     Ozone Depleting Potential (CFC 11 = 1.0)
OTF     Ozone Project Trust Fund of the World Bank for the Substances as defined by the Montreal Protocol
UNDP    United Nations Development Programme

FISCAL YEAR (PHILIPPINES)

JANUARY 1 - DECEMBER 31
PHILIPPINES

MONTREAL PROTOCOL OZONE DEPLETING SUBSTANCES
PHASE OUT INVESTMENT PROJECT

Project and Grant Summary

<table>
<thead>
<tr>
<th>Project Description</th>
<th>The Project would assist the Philippines to implement an accelerated ODS phaseout program by: (1) providing financing for priority subprojects, and (2) strengthening executing agencies.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executing Agencies</td>
<td>Department of Environment and Natural Resources (DENR) and Land Bank of the Philippines (LBP).</td>
</tr>
<tr>
<td>Beneficiaries</td>
<td>Local Enterprises introducing ODS reducing technologies; and DENR and LBP as executing agencies.</td>
</tr>
<tr>
<td>Amount</td>
<td>US$ 15.049 million equivalent</td>
</tr>
<tr>
<td>Terms</td>
<td>Grant</td>
</tr>
<tr>
<td>Re-lending Terms</td>
<td>Grant</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Project Cost Summary Component</th>
<th>US$ Million</th>
</tr>
</thead>
<tbody>
<tr>
<td>ODS Investment Subprojects</td>
<td>14.740</td>
</tr>
<tr>
<td>Technical Assistance</td>
<td>0.309</td>
</tr>
<tr>
<td>SUB-TOTAL</td>
<td>15.049</td>
</tr>
<tr>
<td>Commercial Loans/or Enterprise Own Funds</td>
<td>8.161</td>
</tr>
<tr>
<td>TOTAL</td>
<td>23.210</td>
</tr>
</tbody>
</table>

Economic Rate of Return: N/A

Staff Appraisal Report: N/A

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MEMORANDUM AND RECOMMENDATION OF THE DIRECTOR
COUNTRY DEPARTMENT 1
TO THE REGIONAL VICE PRESIDENT
EAST ASIA AND PACIFIC REGION

1. I submit for your approval the following memorandum and recommendation on a proposed OZONE PROJECTS TRUST FUND grant to the Republic of the Philippines for the equivalent of US$15.049 million to help finance a project to introduce ODS reducing technologies and to strengthen the capability of executing agencies for implementing ODS Phase Out projects in the Philippines.

Background

1. The Philippine economy is at a critical stage where it has the opportunity to leave behind a prolonged era of economic recovery and stabilization and to move ahead towards sustained growth with the export led industry as the principal driving force. Industrial growth, however, will not be sustainable without taking environmental concerns into consideration. The Government has undertaken the first steps to promote conditions for environmentally sound development without disrupting industrial development. The Philippines ratified the Montreal Protocol (MP) on Substances that Deplete the Ozone Layer in March 1991, and is eligible for Ozone Trust Fund (OTF) financing.

2. In 1990, the Philippines consumed about 3,850 tons ODS (equivalent to 2,650 tons expressed as Ozone Depleting Potential, ODP), mainly as refrigerants in refrigeration and air conditioning (45%), including automobiles (26%), blowing agents (16% foam and 13% tobacco) and as solvents in the electronics and metal industry (21%). The growth rate during 1986-90 was about 14% p.a. Per capita consumption in 1991 was 0.06 kg. ODP.

3. The Government is committed to establishing a cost effective program for phasing out Ozone Depleting Substances (ODS). A Montreal Protocol Secretariat (Ozone Desk) has been established under the lead agency, the Department of Environment and Natural Resources (DENR), to oversee implementation of the MP. DENR and the Environment Management Bureau (EMB), the lead regulatory agency and coordinator of Ozone Desk activities, are institutionally capable, but they are under-staffed and have insufficient resources to cope with ODS phase out and environmental protection in a growing economy. The Land Bank of the Philippines (LBP), which has extensive experience as a development bank and has been a borrower of several Bank loans, has been assigned by the Government to act as the financial agent (FA) to channel funds from the OTF to MP related projects.

4. A Country Program (CP) that defines the strategy, incremental costs, policies and actions required to achieve early ODS phase out was completed in June 1993. The CP spells out the need for regulatory measures to control imports of ODS and fiscal measures to encourage the use of ODS substitutes and of non-ODS technologies. The CP is based on an ODS Country Study completed by Cowiconsult

1/ The Ozone Projects Trust Fund (OTF) has been established under the Interim Multilateral Fund for the Implementation of the Montreal Protocol. Its purpose is to fund activities which enable developing countries who are signatories of the Protocol, to comply with their obligations under the Protocol. The OTF is administered by the World Bank.
in 1991, the Bank acted as the implementing agency for two engineering studies to prepare this proposed ODS Phase Out Investment Project, including sixteen subprojects in refrigerant recycling, household refrigeration, foam blowing, tobacco processing, and electronics and metal cleaning. The Executive Project Summary (EPS) of the proposed project was reviewed in a meeting on January 12, 1993, and was approved on January 15, 1993.

5. The Multilateral Fund Executive Committee (MFEC), in its meeting on March 9, 1993, gave final approval to funding of US$11.42 million for ten pre-appraised subprojects under the proposed ODS Investment Project. MFEC also gave permission to proceed for six identified, but not pre-appraised, subprojects for an equivalent of US$3.32 million which the Bank will re-submit at a later stage to the MFEC for final approval once the projects have been sufficiently prepared to be pre-appraised. Implementation and funding of these subprojects is subject to prior MFEC approval. In addition, the MFEC approved funding for (a) an Institutional Strengthening Project (US$209,000), (b) Technical Assistance to the Financial Agent, the Land Bank of the Philippines (US$100,000).

Project Objectives

6. The objective of the project is to support the Government's program to phase out ODS by: (a) establishing an efficient mechanism for executing ODS phaseout projects through local institutions; and (b) implementing an initial group of cost effective priority subprojects. To achieve this, the project would provide grant funding to subprojects through a local financial agent, the Land Bank of the Philippines (LBP).

Project Description and Costs

7. The project includes an investment component and a technical assistance (TA) component. The TA component includes: (a) an Institutional Strengthening Project to strengthen DENR's capability to implement the Country ODS Phase Out Program; (b) Technical Assistance to the Financial Agent, the Land Bank of the Philippines, to strengthen its capability to appraise and supervise ODS investment subprojects. The investment component will support sixteen subprojects in: (a) ODS refrigerant recycling; and (b) conversion to non-ODS technology in solvents, refrigeration, foam blowing and tobacco puffing. A list of the proposed subprojects is attached in the Technical Annex. Of the sixteen identified subprojects, ten subprojects, representing about 85% of the total project investment cost and about 75% of the total grant amount, have been pre-appraised. Pre-appraisals for the other six subprojects will be presented to the MFEC for approval once finalized. Technical reviews of the sixteen subprojects have been completed. The project is expected to be completed by December 31, 1997.

2/ CP preparation and implementation is being supervised by an Inter-agency Steering Committee chaired by DENR. A Technical Working Group under the Committee drafted the CP. UNDP is working with the Ozone Desk to develop a training and technical assistance program.

3/ Tobacco is puffed to increase its volume and to reduce the nicotine and tar content.

4/ A fee for technology transfer agreements between Filipino firms and international technology suppliers has not been included in the incremental cost of subprojects, because contracts are still under negotiations. This fee will be included in a subsequent ODS investment project.
Estimated total project costs are US$23.21 million equivalent. The cost of the TA component is US$0.309 million, all of which is eligible for OTF grant funding. The cost of the subprojects is US$22.9C million, of which US$14.74 million are incremental costs eligible for OTF funding, including a contingency of 15% and a financial agent fee of about 3% of the grant amount. Incremental costs are defined according to Bank and MFEC guidelines, i.e., as the net present value of incremental economic project costs (investment plus operating costs net of operating benefits) discounted at 10% in real terms. Firms with mixed local and foreign (developed country) ownership are eligible for OTF funding in proportion to their respective share of local ownership (see Annex V). A break-down of project costs and the financing plan are shown in Schedule A. A disbursement schedule is presented in Schedule B. A timetable of key project processing events is given in Schedule C.

Project Financing

9. The funds for the TA (US$0.309 million) and the incremental costs of investment subprojects (US$14.74 million) would be financed by the proposed OTF Grant to the Government and would be passed on to eligible subprojects as a grant to cover the incremental cost portion of total subproject cost. Subproject proponents would finance the balance from commercial sources or from the enterprises' own resources. The financing plan is attached in Schedule A.

Project Implementation

10. Investment Component: The Ozone Desk of DENR will ensure that ODS projects are consistent with the Country Program for ODS phaseout in the Philippines. The Ozone Desk will review each subproject prior to appraisal to ensure that cost-effective technologies will be applied and that the subproject conforms to the CP’s priorities. All projects will require the Ozone Desk's endorsement before LBP will start processing applications from firms. LBP will be responsible for implementing the investment component, including subproject appraisal, disbursement of OTF funds to the enterprises, and supervision of subproject implementation. Funds would flow from the Bank's OTF directly to a Special Account to be established under this project and from there to the subprojects. LBP will be responsible for keeping the records of this Special Account and for submitting the applications for withdrawal and replenishment. For its services, LBP will receive a fee of about 3% of the subproject grant amount, one third (1% of amount excluding contingencies) following approval of subproject by the Bank, and the remaining two thirds (2% of actually disbursed amounts) pari passu with disbursement of the grants to the subprojects. LBP would apply subproject eligibility, appraisal and financing criteria for MP projects which are summarized in the Technical Annex (Annex V). LBP will prepare appraisal reports in a format acceptable to the Bank and DENR. TA Component: DENR will be responsible for implementing the Institutional Strengthening Component; the corresponding grant funds will be channeled directly to DENR. LBP will be responsible for implementing TA to the Financial Agent; the corresponding grant funds will channeled through the Special Account.

11. The Bank will review each subproject appraisal report to ensure compliance with MFEC guidelines prior to approving the disbursement of the subproject's grant (no free limit as required under the OTF agreement). Subproject proponents (enterprises) will be responsible for subproject implementation in accordance with sub-grant agreements signed with LBP. LBP would
submit a model sub-grant agreement, acceptable to the Bank and to DENR, before appraisal of the ODS Investment Program.

12. **Reporting and Monitoring.** The Ozone Desk of DENR will be responsible for monitoring the overall project and ensuring the attainment of ODS phaseout targets. As such, the Ozone Desk's monitoring will include reviewing progress and audit reports prepared by LBP. DENR will submit semi-annual project progress reports and LBP will submit semi-annual status reports on the grant disbursements and the progress achieved in implementing the subprojects, all in such form and detail which is acceptable to the Bank. Copies of LBP's reports will be submitted to DENR. Within six months after the end of each fiscal year, LBP will submit an annual audit report on the project account and DENR on the institutional strengthening component (para 7a), prepared by an independent auditor acceptable to the Bank. The Bank's supervision will include reviewing the progress and audit reports, and approving all subproject appraisal reports.

**Environmental Considerations**

13. The overall objective of the project is to protect the environment by reducing the emission of ODS. However, the change to non-ODS technologies or substitution of ODS with other chemicals may involve other environmental risks, such as atmospheric releases of substitute chemicals, in particular hydrocarbons, and water pollution, particularly from use of aqueous base solvents. Countermeasures to address these risks are included in the subproject proposal, and will be verified before the issuance of an Environmental Compliance Certificate (ECC) which each sponsoring enterprise will have to obtain according to Philippine law. LBP will ensure that the subprojects have the required ECCs, and will submit them together with the appraisal report to the Bank.

**Project Sustainability**

14. The project will assist the Government in establishing an efficient mechanism for developing and funding subprojects to initiate an ODS phase out program. In order to achieve a sustainable and cost-effective phase out of ODS, with a broad coverage of the various ODS consuming sectors, it will be essential - in addition to the enterprise specific support - to formulate and apply economic policies which create incentives for reducing the import of ODS, and which also encourage the use of ODS substitutes and non-ODS technologies. Changes in market prices for ODS and ODS substitutes are expected to be a major incentive for an accelerated ODS phase out. Prices are expected to increase as the world's major ODS suppliers are committed to reducing drastically their ODS production. Simultaneously, these suppliers are developing or are already actively marketing ODS substitutes. Prices for these substitutes are expected to decrease. In addition to market forces, some fiscal measures are being recommended in the CP, including fiscal incentives for ODS substitutes and non-ODS technologies.

**Lessons from Previous Bank Experience**

15. Projects utilizing OTF resources are being developed simultaneously in Brazil, Thailand, Mexico, China, Malaysia, Turkey, and other countries. No similar previous projects within the Bank have been completed yet. However, preparatory steps taken to date indicate the need for flexibility in project design, the need for well prepared and documented components at the pre-appraisal stage, in addition to the need for training and institutional strengthening support.
Rationale for Use of Ozone Trust Fund

16. The project would form part of the Philippines' ODS phase out program. The proposed project is consistent with the Implementation Guidelines and Criteria for OTF funding established by the MFEC.

Agreed Actions

17. The following actions have been agreed upon with the Government and constitute conditions of effectiveness of the Grant:

   (a) the Government of the Philippines, as represented by DENR and the Department of Finance (DOF), will have entered into a Memorandum of Agreement with the Land Bank of the Philippines, acceptable to the Bank, specifying the duties, rights and obligations of LBF as the financial agent for Montreal Protocol funded projects;

   (b) LBP will have issued Operating Policy Guidelines, acceptable to the Bank and approved by DENR, specifying the procedures to be followed for the appraisal, financing and supervision of the subprojects to be financed by the Project Grant and including a model subgrant agreement.

18. The following actions have been agreed upon with the Government and constitute ongoing covenants under the Grant:

   (a) LBP, as the financial agent, shall at all times apply the Operating Policy Guidelines for the purposes of implementing the subprojects.

   (b) The Montreal Protocol Secretariat of DENR shall be, throughout the project execution, duly maintained with the necessary staff and resources.

   (c) Separate project accounts shall be maintained and audited annually by independent auditors acceptable to the Bank.

   (d) A Special Account will be established by the Government on terms and conditions acceptable to the Bank.

   (e) Prior to disbursement, each subproject proposal has to be approved by the Bank for subprojects with a cost of less than $500,000 and by the MFEC for subprojects with a cost of $500,000 or above;

   (f) Payments could be made for expenditures incurred prior to the date of signing of the OTF Grant Agreement, but after March 31, 1993, up to an aggregate amount not to exceed 10% of the grant amount ($1,500,000) and only for subprojects approved by the MFEC or the Bank, as the case may be;

   (g) following the guidelines for the implementation of OTF Grants the Government would approve public access to this project document (Memorandum of Director).
Project Risks

19. Inadequate technical capability of the implementing agencies, DENR and LBP, could slow down appraisal and consequently implementation of the subprojects. This risk is being mitigated by the training component for the LBP (included in the project) and the Institutional Strengthening Project for the Ozone Desk (submitted separately to the MFEC).

Project Benefits

20. The project will help the Government implement an accelerated ODS phase out program by providing financing for priority subprojects. The project is expected to reduce ODS consumption directly by about one-third in ODP weighted units by 1995 (approximately 800 MT ODP). Further reductions are expected to be achieved during the same time period at the level of transnational corporation's and at firms that will realize a cost savings by converting to non-ODS technologies. In addition, the project will enable export-oriented firms to maintain their export markets by adjusting in a timely manner to non-ODS products as required by importers in industrialized countries.

Recommendation

21. I am satisfied that the proposed grant would comply with the relevant provisions of the Ozone Projects Trust Fund in Resolution 9-15 of the Executive Directors and I recommend that the Regional Vice President approve it.

Jayasankar Shivakumar
Acting Director
Country Department 1
East Asia and Pacific Region

Washington, D.C.
September 27, 1994
Attachments
## Schedule A

### PROJECT COST AND FINANCING PLAN

<table>
<thead>
<tr>
<th>Investment Costs</th>
<th>Net Recurring Costs (4 Yrs)</th>
<th>Total Eligible Incremental Cost</th>
<th>Financial Agent Fee (3%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Preappraised:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Household Refrigerator Foam (4 subprojects)</td>
<td>5.44</td>
<td>-0.86</td>
<td>3.38</td>
</tr>
<tr>
<td>Solvents (5 subprojects)</td>
<td>2.30</td>
<td>0.23</td>
<td>2.30</td>
</tr>
<tr>
<td>Tobacco (1 subproject)</td>
<td>11.81</td>
<td>-4.02^c</td>
<td>4.00^c</td>
</tr>
<tr>
<td><strong>Subtotal Preappraised</strong></td>
<td>19.55</td>
<td>-4.65</td>
<td>9.68</td>
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<tr>
<td><strong>Identified:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Household Refrigerator Compressor (4 subprojects)</td>
<td>2.44</td>
<td>0.00</td>
<td>1.90</td>
</tr>
<tr>
<td>ODS Recycling (2 subprojects)</td>
<td>0.91</td>
<td>0.00</td>
<td>0.91</td>
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<tr>
<td><strong>Subtotal Identified</strong></td>
<td>3.35</td>
<td>0.00</td>
<td>2.81</td>
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<td><strong>TOTAL INVESTMENT</strong></td>
<td>22.90</td>
<td>-4.65</td>
<td>12.49</td>
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</table>

### TECHNICAL ASSISTANCE COMPONENT

| Institution Strengthening | 0.209 |
| TA to Financial Agent | 0.100 |
| **Subtotal for TA Component** | 0.31 | 0.00 | 0.30 | 0.01 | 0.309 |
| **TOTAL PROJECT** | 23.21 | -4.65 | 12.79 | 0.38 | 15.049 |

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^a/ Discounted at 10%. Negative numbers indicate operating savings.
^b/ Eligible incremental cost = incremental cost x share of local ownership.
^c/ Includes eligible incremental cost, 15% contingency, and 3% fee for financial agent.
^d/ Recurring costs over 15 year project economic life.
^e/ Incremental investment cost of US$ 8 million, based on depreciated value of existing assets, used in grant calculation.
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MONTREAL PROTOCOL OZONE DEPLETING SUBSTANCES
PHASE OUT INVESTMENT PROJECT

Schedule A

PROJECT COST AND FINANCING PLAN

Financing Plan

<table>
<thead>
<tr>
<th>Source</th>
<th>US$ Thousand equivalent</th>
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<tr>
<td>OTF Grant</td>
<td>15,049</td>
</tr>
<tr>
<td>Commercial Loans/or Enterprise Own Funds</td>
<td>8,161</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
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</tbody>
</table>
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MONTREAL PROTOCOL OZONE DEPLETING SUBSTANCES
PHASE OUT INVESTMENT PROJECT

Schedule B

Summary of Proposed Procurement Arrangements

Total procurement will amount to US$15,049,000 for about 16 subprojects whose procurement will be administered following ICB or the procurement practices of private industry in the Philippines which the Bank has examined and found acceptable, consisting at a minimum of the following:

Goods and Works

(i) contracts over US$ 2 million equivalent (excluding proprietary packages) would be procured under ICB procedures;

(ii) contracts between US$200,000 and US$2 equivalent million would be procured on the basis of comparison of price quotations solicited from at least three qualified suppliers from at least two countries; and

(iii) contracts below US$200,000 would be procured on the basis of comparison of price quotations solicited from at least three qualified suppliers; and

(iv) proprietary items may be procured directly from the supplier in accordance with procedures acceptable to the Trustee.

Consultants

(iv) Contracting of Consultants shall be engaged on the basis of the “Guidelines for the Use of Consultants by World Bank Borrowers and the World Bank as Executing Agency” (August 1981).

Prior Review

Prior review is required for the following contracts and bid packages:

(i) over US$ 2 million;

(ii) for proprietary technology and equipment;

(iii) for contracts above $50,000 for individual consultants and for contracts above US$100,000 with consulting firms;
Disbursement Table

Withdrawal of the Proceeds of the OTF Grant

1. The table below sets forth the Categories of items to be financed out of the proceeds of the OTF Grant, the allocation of the amounts of the OTF Grant to each Category and the percentage of expenditures for items so to be financed in each Category:

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount of the OTF Grant Allocated (Expressed in Dollar Equivalent)</th>
<th>% of Expenditures to be Financed</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Subgrants</td>
<td>14,369,000</td>
<td>100%</td>
</tr>
<tr>
<td>(2) Consultants' services and training (including equipment and materials related thereto)</td>
<td>300,000</td>
<td>100%</td>
</tr>
<tr>
<td>(3) Agency fee</td>
<td>380,000</td>
<td>100%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>15,049,000</td>
<td>100%</td>
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MONTREAL PROTOCOL OZONE DEPLETING SUBSTANCES
PHASE OUT INVESTMENT PROJECT

Schedule B

Disbursement Schedule

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<tr>
<td>Annual</td>
<td>2,107</td>
<td>7,223</td>
<td>5,117</td>
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<tr>
<td>Cumulative</td>
<td>2,107</td>
<td>9,330</td>
<td>14,447</td>
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--------- (US$ thousand) ---------

Cumulative 14% 62% 96% 100%
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MONTREAL PROTOCOL OZONE DEPLETING SUBSTANCES
PHASE OUT INVESTMENT PROJECT

Schedule C

Timetable of Key Project Processing Events

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Preparation (Time Taken)</td>
<td>24 months</td>
<td></td>
</tr>
<tr>
<td>b) Prepared by</td>
<td>DENR with Bank Assistance (Mme/Messrs. Poppele, Catanach, Brown, Ritter)</td>
<td></td>
</tr>
<tr>
<td>c) First Presentation to the Bank</td>
<td>August 1992</td>
<td></td>
</tr>
<tr>
<td>d) Departure of Bank Mission</td>
<td>11/25/92</td>
<td></td>
</tr>
<tr>
<td>e) Planned Date for Negotiations</td>
<td>07/15/94</td>
<td></td>
</tr>
<tr>
<td>f) Planned Date of Effectiveness</td>
<td>01/20/95</td>
<td></td>
</tr>
<tr>
<td>g) List of Relevant PCR's and PPAR's</td>
<td>Not Applicable</td>
<td></td>
</tr>
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(October 1993)

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<td>List of Subprojects</td>
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<td>Description of Subprojects</td>
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<td>Annex III</td>
<td>Processing Steps for Subproject Proposals</td>
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<td>Annex IV</td>
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</tr>
<tr>
<td>Annex V</td>
<td>Guidelines for Subproject Eligibility, Grant Funding, and Preparation of Appraisal Reports</td>
</tr>
<tr>
<td>---------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>Fortune Tobacco</td>
<td>Tobacco Fluffing</td>
</tr>
<tr>
<td>Philcor</td>
<td>Foam Blowing</td>
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<tr>
<td>Conception</td>
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<td>Sanyo</td>
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<td>Federal Electric</td>
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<td>Solvent Cleaning</td>
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<td>Pacific Semiconduc-</td>
<td>Solvent Cleaning</td>
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<td>Sorionic Assemblies</td>
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<td>Integrated Microelec.</td>
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<td>Solid Circuits</td>
<td>Solvent Cleaning</td>
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<tr>
<td><strong>Subtotal</strong></td>
<td><strong>771 ODP</strong></td>
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<tr>
<td>ASAP (Recycle)</td>
<td>Refrigeration</td>
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<td>PASAPI (MAC)</td>
<td>Air-conditioning</td>
</tr>
<tr>
<td>Philcor</td>
<td>Refrigeration</td>
</tr>
<tr>
<td>Conception</td>
<td>Refrigeration</td>
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<td>Sanyo</td>
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<td>Federal Electric</td>
<td>Refrigeration</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>1018 ODP</strong></td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong></td>
<td><strong>1789 ODP</strong></td>
</tr>
</tbody>
</table>

Discounted at 10%. Negative numbers indicate operating savings.

* Includes 15% contingency and 3% fee for financial institution

++ Recurring cost over 15 year project economic life.

\* Incremental investment cost of US$ 8.02 million, based on calculation for depreciated value of existing assets, used in calculation of grant eligibility.
PHILIPPINES

MONTREAL PROTOCOL OZONE DEPLETING SUBSTANCES
PHASE OUT INVESTMENT PROJECT

TECHNICAL ANNEX II
DESCRIPTION OF SUBPROJECTS

The proposed project consists of an investment and a technical assistance component. This technical annex provides: a detailed description of these components.

I. DESCRIPTION OF INVESTMENT SUBPROJECTS

A. PRE-APPRaised AND APPROVED SUBPROJECTS

MFEC has given final approval to the funding of the following ten pre-appraised subprojects.

TOBACCO EXPANSION
Conversion of Tobacco Fluffing Process from CFC-11 to CO₂ at Fortune Tobacco Corporation

This project will eliminate the 350 MT consumption of CFC-11 for tobacco fluffing at Fortune Tobacco Corporation. The CFC-11 fluffing process will be replaced with a carbon dioxide-based system. The project will also eliminate a negligible amount of HCFC-22 used as a refrigerant in one component of the fluffing process. Since Fortune Tobacco is the only company in the Philippines that uses CFCs to fluff tobacco, eliminating its use of CFC-11 will simultaneously eliminate all CFC use in the Philippine tobacco fluffing sector. The proposed project addresses only the phaseout of CFC-11 in Fortune’s tobacco fluffing process and does not provide assistance to other parts of Fortune’s cigarette manufacturing operations.

FOAM BLOWING
Conversion of Blowing Agents Used in Refrigerator Insulating Foam at Philippines Appliance Corporation

This OTF request is for funding Phase I of a three phase program that will lead to the phase out of over 200 MT of CFC blowing agents for production of the polyurethane insulation in the refrigerator cabinets manufactured at Philacor. In Phase I, Philacor’s foam formulation will be adjusted to reduce CFC-11 consumption by up to 50% resulting in elimination of 120 MT CFC-11 consumption p.a. In addition, its foaming operations will be converted to equipment capable of processing high pressure foam formulations. The high pressure equipment improves performance of the low CFC formulation and will be required in the future phases to a complete phaseout of ODS in foam production. Following the availability of high pressure HCFC foam formulations, Phase I will also include batch testing of these formulations in preparation for a complete CFC phaseout in a subsequent Phase II project. As
HCFC consumption is controlled by MP, the final phase of the project will be conversion to a non-ODS, such as HFC-134a, that requires high pressure handling.

Conversion of Blowing Agents Used in Refrigerator Insulating Foam at Conception Industries

This OTF request is for funding Phase I of a three phase program that will lead to the phaseout of over 65 MT of CFC blowing agents p.a. for production of the polyurethane insulation in the refrigerator cabinets manufactured at Conception Industries 2-13. In Phase I, Conception's foam formulation will be adjusted to reduce CFC-11 consumption by up to 50% resulting in elimination of 35 MT CFC-11 consumption p.a. In addition, its foaming operations will be converted to equipment capable of processing high pressure foam formulations. The high pressure equipment improves performance of the low CFC formulation and will be required in the future phases to a complete phaseout of ODS in foam production. Following the availability of high pressure HCFC foam formulations, Phase I will also include batch testing of these formulation in preparation for a complete CFC phaseout in a subsequent Phase II project. As HCFC consumption is controlled by MP, the final phase of the project will be conversion to a non-ODS, such as HFC-134a, that requires high pressure handling.

Conversion of Blowing Agents Used in Refrigerator Insulating Foam at Sanyo Philippines

This OTF request is for funding Phase I of a three phase program that will lead to the phaseout of over 20 MT of CFC blowing agents p.a. for production of the polyurethane insulation in the refrigerator cabinets manufactured at Sanyo. In Phase I, Sanyo Philippines's (Sanyo) foam formulation will be adjusted to reduce CFC-11 consumption by up to 50% resulting in elimination of 9 MT CFC-11 consumption p.a. In addition, its foaming operations will be converted to equipment capable of processing high pressure foam formulations. The high pressure equipment improves performance of the low CFC formulation and will be required in the future phases to a complete phaseout of ODS in foam production. Following the availability of high pressure HCFC foam formulations, Phase I will also include batch testing of these formulations in preparation for a complete CFC phaseout in a subsequent Phase II project. As HCFC consumption is controlled by MP, the final phase of the project will be conversion to a non-ODS, such as HFC-134a, that requires high pressure handling.

Conversion of Blowing Agents Used in Refrigerator Insulating Foam at Federal Electric Company

This OTF request is for funding Phase I of a three phase program that will lead to the phaseout of over 10 MT of CFC blowing agents p.a. for production of the polyurethane insulation in the refrigerator cabinets manufactured at Federal Electric. In Phase I, Federal Electric's foam formulation will be adjusted to reduce CFC-11 consumption by up to 50% resulting in elimination of 5 MT CFC-11 consumption p.a. In addition, its foaming operations will be converted to equipment capable of processing high pressure foam formulations. The high pressure equipment improves performance of the low CFC formulation and will be required in the future phases to a complete phaseout of ODS in foam production. Following the availability of high pressure HCFC foam formulations, Phase I will also include batch testing of these formulation in preparation for a complete CFC phaseout in a subsequent Phase II project. As HCFC consumption is controlled by MP, the
final phase of the project will be conversion to a non-ODS, such as HFC-134a, that requires high pressure handling.

SOLVENT CLEANING

Conversion of Electronic Cleaning Process from CFC-113/Alcohol Blended Solvents to Semi-Aqueous and Aqueous Cleaning Solvents at Ionics Circuits Incorporated

This project will eliminate the use of CFC-113 and TCA in the cleaning of electronic circuit cards, computer disk drives, and associated electronic equipment at Ionics Circuits Incorporated (Ionic). The phaseout will be accomplished by dismantling existing vapor degreasers and installing aqueous and semi-aqueous cleaning equipment. Ionics currently uses eight batch vapor degreasers in its cleaning operations. The project will replace these eight cleaning machines with one in-line aqueous cleaning machine and four batch semi-aqueous cleaning machines. The project also provides for engineering support and training, exhaust system improvements, and appropriate wastewater treatment facilities. The conversion to non-ODS technology will eliminate annual consumption of 98 MT of CFC-113 and 73 MT of TCA. This represents a reduction in national consumption levels of almost 40 percent and 5 percent, respectively.

Conversion of Electronic Cleaning Process from CFC-113 and 1,1,1-Trichloroethane (TCA or Methyl Chloroform) Solvents to Low-Emission Processes using non-ODS Organic Solvents at Pacific Semiconductors Incorporated

This project will eliminate the use of CFC-113 and TCA in the cleaning of electronic components, metallic lead frames, and other metal parts at Pacific Semiconductors Incorporated (Pacific). The phaseout will be accomplished by dismantling existing vapor degreasers and installing low-emissions vapor degreasers. Pacific currently uses two in-line CFC-113 vapor degreasers and three batch TCA vapor degreasers. The project will replace these five cleaning machines with five batch low-emission vapor degreasers. The cleaning solvent chosen for use in the machines will likely be perchloroethylene, dichloromethane, or another organic solvent. The project also provides for an automatic hoist and programmable controller for each vapor degreaser, engineering support and training, and exhaust system improvements. The conversion to non-ODS technology will eliminate annual consumption of 11.5 MT of CFC-113 and 13 MT of TCA. This represents a reduction in national consumption levels of almost 5 percent and 0.9 percent, respectively.

Conversion of Electronic Cleaning Process from CFC-113/Alcohol Blended Solvents to Semi-Aqueous and Aqueous Cleaning Solvents at Electronic Assemblies Incorporated

This project will eliminate the use of CFC-113 in the cleaning of electronic circuit cards at Electronic Assemblies Incorporated (EAI). The phaseout will be accomplished by dismantling existing vapor degreasers and installing aqueous and semi-aqueous cleaning equipment. EAI currently uses three batch CFC-113 vapor degreasers in its cleaning operations. The project will replace these three batch machines with one in-line aqueous cleaning machine and one in-line semi-aqueous cleaning machine. The project also provides for engineering support and training, exhaust system improvements, and appropriate wastewater treatment facilities. The conversion to non-ODS technology will eliminate annual consumption of 4.8 MT of CFC-113. This represents a reduction in national consumption levels of almost 2 percent.
Conversion of Electronic Cleaning Process from CFC-113/Alcohol Blended Solvents to High-Purity Water Cleaning at Integrated Microelectronics

This project will eliminate the use of CFC-113 in the cleaning of a wide variety of electronic devices and metal parts at Integrated Microelectronics Incorporated (IMI). Products manufactured by IMI include pulse transformers, coils, hard disk drives, and spare parts for disk drives. The phaseout will be accomplished using two distinct alternative processes. IMI currently uses one in-line CFC-113 vapor degreaser and one batch CFC-113 vapor degreaser in its cleaning operations. The project will replace the high volume in-line vapor degreaser with a high-volume in-line aqueous cleaning machine, while retrofitting the batch vapor degreaser for use with a non-ODS chlorinated solvent. The chlorinated solvent to be used will most likely be methylene chloride or trichloroethylene, and the retrofits will aid in reducing emissions from the machine to extremely low levels. The project also provides for engineering support and training, exhaust system improvements, and appropriate wastewater treatment facilities. The conversion to non-ODS technology will eliminate an annual consumption of 18.7 MT of CFC-113. This represents a reduction in national consumption levels of almost 8 percent.

Conversion of Electronic Cleaning Process from CFC-113/Alcohol Blended Solvents to Semi-Aqueous Cleaning Solvents at Solid Circuits

This project will eliminate the use of CFC-113 in the cleaning of specialty electronic components at Solid Circuits Incorporated (Solid). The phaseout will be accomplished by dismantling Solid's existing batch CFC-113 vapor degreaser and installing a batch semi-aqueous cleaning machine. The project also provides for a closed-loop water rinsing system, a drying oven, exhaust system improvements, and engineering support and training. The conversion to non-ODS technology will eliminate an annual consumption of 3.8 MT of CFC-113. This represents a reduction in national consumption levels of 1.5 percent.

B. IDENTIFIED PROJECTS with PERMISSION TO PROCEED

MFEC gave permission to proceed for the following six identified, but not pre-appraised, subprojects for an equivalent of US$3.32 million. The Bank will re-submit these subprojects at a later stage to the MFEC for final approval, once the projects have been sufficiently prepared to be pre-appraised. Implementation and funding of these subprojects is subject to prior MFEC approval.

IDENTIFIED - REFRIGERANT RECYCLING

Establishment of a Central Recycling Scheme in Metro Manila

This OTF request is for permission to proceed on final preparation of a project proposal to develop a central recycling scheme in Metro Manila. The project would establish a central CFC recycling scheme in Metro Manila to reduce consumption of CFC-12 by 55 MT, CFC-11 by 8 MT and HCFC-22 by 40 MT. The Appliance Service Association of the Philippines (ASAP) is developing a plan to run the center by providing users with dedicated recovery cylinders for the collection of refrigerant. Recovered refrigerant would be bought by the scheme and reclaimed refrigerant would be sold to users for about 15% less than the market price for imported refrigerant.
Establishment of a MACs Recycling Scheme

This OTF request is for permission to proceed on final preparation of a project proposal to develop a mobile air-conditioning recycling scheme in the Philippines. The Philippines Association of Suppliers and Parts Installers (PASAPI) is developing a plan to purchase 100 MAC refrigerant recovery machines and lease them at nominal rates to MAC service centers in the Philippines; sixty in the Metro Manila area, 20 in Cebu City, 10 in Davao, and 10 in Cagayan de Oro. The operation of these units would be monitored and the data obtained would form the basis of promotion to the remaining MACs service centers in the country.

IDENTIFIED - REFRIGERATION

Engineering Design and Assistance for the Use of HFC-134a Refrigerant in Household Refrigerators at the Philippines Appliance Corporation

This OTF request is for permission to proceed on final preparation of a project proposal to develop HFC-134a refrigerator production capability at Philippines Appliances Corporation (Philacor - 61% Philippine owned). The technical program for the project, especially the technology transfer arrangements, are being completed by the enterprise in accordance with the OORB reviewer's comments. Phase I of the project will be ready for submission to the next EC meeting at which time funding will be requested. Phase I of the project would lead to the conversion of an existing CFC based refrigerator manufacturing facility at Philacor to production of refrigerators using HFC-134a as the working fluid. In Phase I, about 650 prototype and test refrigerators would be produced and recovery/reclamation procedures would be adopted for servicing in-plant defective CFC-12 refrigerators. Phase I would provide equipment needed to convert one of Philacor's three production lines to the manufacturer of HFC-134a units. Equipment for the remaining two lines and the incremental operating costs for production of HFC-134a refrigerators would be included in a Phase II project. The full project when completed would provide a major indigenous source of non-ODS domestic refrigerators for the Philippine market. Technology for the non-ODS refrigerators would be transferred by the Philacor's parent company, General Electric.

Engineering Design and Assistance for the Use of HFC-134a Refrigerant in Household Refrigerators at Conception Industries

This project will fund engineering development of the manufacturing process for HFC-134 household refrigerators at Conception Industries. The project will be modeled after the Philacor project described above. Conception currently consumes 8 ODP-weighted MT of CFC-12 and produces 70,000 refrigerators per year. Over the life of the project, however, Conception will avoid using even greater annual quantities of CFC-12 because the demand for refrigerators and other household appliances in the Philippines is expected to grow by 15 percent per year. It is projected that Conception will annually save and average of 1.05 ODP-weighted MT in Phase I and 17.18 ODP-weighted MT in Phase II.
Engineering Design and Assistance for the Use of HFC-134a Refrigerant in Household Refrigerators at Sanyo Philippines

This project will fund engineering development of the manufacturing process for HFC-134a household refrigerators at Sanyo Philippines (Sanyo). The project will be modeled after the Philacor project described above. The project will result in the phaseout of Sanyo's 4 MT consumption of CFC-12 based on its 1991 production of 24,000 refrigerators.

Engineering Design and Assistance for the Use of HFC-134a Refrigerant in Household Refrigerators at the Federal Electric Company

This project will fund engineering development of the manufacturing process for HFC-134 household refrigerators at Federal Electric Company. Federal Electric currently consumes 2 MT of CFC-12 and produces 8,000 refrigerators per year. Over the life of the project, however, Federal Electric will avoid using even greater annual quantities of CFC-12 because the demand for refrigerators and other household appliances in the Philippines is expected to grow by 15 percent per year. It is projected that Federal Electric will annually save an average of 0.25 MT in Phase I and 5.15 MT in Phase II.
II. DESCRIPTION OF THE TECHNICAL ASSISTANCE COMPONENT

The TA components include: (a) an Institutional Strengthening Project to strengthen DENR's capability to implement the Country ODS Phase Out Program, (b) Technical Assistance to the Financial Agent, the Land Bank of the Philippines to enhance its capability to appraise and supervise ODS investment projects.

Institutional Strengthening Project (ISP)

A Montreal Protocol Secretariat (the 'Ozone Desk') was established in the Department of Environment and Natural Resources in 1992 to facilitate and coordinate projects and policies to meet the Philippines MP obligations. Ozone Desk activities are supported by a Program Steering Committee (PSC) and a Technical Working Group (TWG), each comprised of relevant government and industry representatives. Currently, the Ozone Desk is operating with DENR staff which has been assigned part-time to MP tasks.

Under the ISP, grant funding will be made available to DENR to cover the incremental costs of setting up the Ozone Desk with appropriate office equipment and to cover the annual operating costs for a period of three years. The Philippine proposal is follows the guidelines of the MFEC for institutional strengthening projects (UNEP/OzL.Pro/ExCom/7/20) and the requested amount of US$209,000 is well below the threshold amount of US$300,000 established for category 2 countries such as the Philippines.

Technical Assistance to Land Bank of the Philippines (LBP)

Under the proposed ODS Investment Project LBP will be responsible for channeling funds from the World Bank administered Ozone Trust Fund to eligible subprojects. The proposed scheme will entail three principal functions to be performed by LBP:

(i) Appraisal of subproject proposals;
(ii) Disbursement of OTF grants to subprojects;
(iii) Supervision of subproject implementation.

While LBP has substantial experience with the financial aspects and the general technical aspects of subprojects, it lacks technical capability in the specific field of ODS phaseout projects to adequately appraise and supervise such projects. The proposed TA will address this issue and help build up LBP's technical expertise for the appraisal and supervision of ODS phaseout projects through training of LBP's staff.

Under the proposed TA for an amount of US$100,000 the following activities would be funded:

(i) On the job training of LBP staff: Hiring of local ODS consultants who would work with LBP staff on the job, assisting them in ODS specific aspects of their appraisal and supervision work, and initially supervising the quality of their work.

(ii) In-house seminars for LBP staff: Design and implementation of in-house seminars on Montreal Protocol projects and ODS specific technical aspects.
(iii) External seminars for LBP staff: Sponsoring of the participation of concerned project officers in relevant seminars and international conferences.

(iv) Consulting services of expatriate experts: Hiring of short-term experts on a case-by-case basis to address highly specialized technical issues in ODS phase out projects. Those experts would always work with LBP staff for transfer of their know how.
GOVERNMENT OF PHILIPPINES

MONTREAL PROTOCOL OZONE DEPLETING SUBSTANCES
PHASE OUT INVESTMENT PROJECT
TECHNICAL ANNEX III: PROCESSING STEPS FOR SUBPROJECT PROPOSALS

The following is a summary of key processing steps for investment projects requesting OTF funding which LBP will elaborate in Operating Policy Guidelines acceptable to the Bank.

a. **Subproject Identification:** DENR, LBP, and interested enterprises are entitled to identify possible ODS phase out subprojects.

b. **Subproject preparation:** enterprises will be responsible for preparing pre-investment studies. It may request assistance from DENR in preparing subprojects.

c. **DENR endorsement of Proposal:** DENR will endorse each subproject prior to appraisal to ensure that the subproject proposal conforms to priorities established under the Country Program.

d. **Subproject appraisal:** LBP will appraise subprojects based on guidelines in Annex V. LBP would prepare appraisal summaries and reports in a format acceptable to the Bank.

e. **Subgrant/Loan packaging:** LBP would offer a commercial loan to be provided from LBP's own sources to in addition to the subgrant for those subprojects where the total subproject costs exceeds the subgrant amount. The subproject proponent would be free to accept the financing or to seek loan financing from other sources. Terms and conditions for this complementary financing would typically follow commercial practice. A confirmed financing plan will be required as part of the appraisal report.

f. **DENR endorsement of Appraisal:** DENR will endorse each appraisal summary and report received from LBP.

g. **Technical review and Bank endorsement of Appraisal:** The Bank will review each appraisal report prepared by LBP, oversee the technical reviews of subproject proposals by external reviewers, and ensure that subprojects are consistent with MFEC guidelines (no free limit in accordance with MFEC guidelines). Once endorsed, the Bank will submit subproject proposals for over $500,000 to the MFEC for approval of funding.

h. **Subproject approval:** For subprojects over US$500,000, MFEC approval is required for each project. MFEC approval is not required for subprojects of less than US$500,000 which are approved by the Bank. (This step can be omitted for the 12 MFEC approved subprojects).

i. **Disbursement of Subgrant:** Upon OTF grant effectiveness, receipt of a withdrawal application from LBP, and approval
of the subproject, the Bank will disburse to the Special Account (see Annex IV). LBP would then disburse from the Special Account to the subproject in accordance with agreed disbursement and procurement procedures (see Annex IV).

j. Under certain circumstances LBP may opt for **Disbursement in Tranches**, typically for large subprojects (over US$0.5 million) with a large share (proposed minimum threshold: over 50%) of subgrant funding for incremental operating costs (as opposed to investment costs), or for subprojects where for technical reasons investments take place in two or more phases. For such subprojects, LBP propose a disbursement plan. Disbursement under each tranche would be based on receipt of progress reports satisfactory to LBP (see below).

k. **Procurement**: LBP will also be responsible for ensuring that beneficiary enterprises follow the agreed procurement guidelines. (see Annex IV).

l. **Subproject Implementation**: Each enterprise will be responsible for subproject implementation. For that purpose, it will sign a sub-grant agreement with LBP upon receipt of the subgrant. The agreement will spell out the responsibilities of the enterprise and its commitment to undertake the necessary activities agreed upon in the subproject proposal in order to achieve the intended ODS reduction.

m. **Progress reports**: Enterprises will be responsible for preparing progress reports and submitting them to LBP (with copy to DENR). As a minimum, the enterprise would submit one subproject progress report at the time when the proposed investment activities have been implemented and the new installations are operating. In cases where multiple disbursement tranches have been agreed, the enterprise would submit one progress report prior to each tranche. The final enterprise progress reports have to be acceptable to DENR and the Bank.

n. **Subproject Supervision**: LBP will have prime responsibility for supervising implementation of subprojects while disbursing the subgrant to the subprojects. Even after the subgrant has been fully disbursed, LBP will review and approve the progress reports submitted by the enterprises and verify them. LBP's responsibility for subproject supervision ends after full disbursement and the approval of the final enterprise progress report acceptable to DENR and the Bank.

o. **Subproject Monitoring**: DENR has the right to monitor the progress of MP funded subprojects in fulfillment of its overall responsibility for the implementation of the MP ODS phase out Country Program.

p. **Auditing and Reporting**: LBP will submit semi-annual reports on the status of the grant disbursements and the progress of the subprojects, acceptable to the Bank. Copies of these reports will be submitted to DENR. LBP will also submit an
annual audit report on the subproject account prepared by an independent auditor acceptable to the Bank.
A. Procurement

1. Procurement of goods, works, and services will be in accordance with relevant Bank Guidelines. LBP will be responsible for ensuring that subproject beneficiaries follow the agreed procurement guidelines. It will help enterprises arrange procurement (international and local); where necessary, procurement should be handled by qualified procurement agencies authorized by the Government and acceptable to the Bank. For International Competitive Bidding (ICB), documents will be prepared following the Bank Standard Bidding Documents, and domestic preference for goods manufactured in Philippines will apply according to the existing procurement guidelines of the Bank.

2. LBP will satisfy itself that the goods, works, and services to be purchased are for the investment subprojects and are reasonably priced, by ensuring that the grant recipient has followed efficient and economic procurement practices in accordance with those of the minimum thresholds agreed (see following list):

(a) For Procurement the following procedures would apply:

Goods and Works

(i) contracts over US$ 2 million equivalent (excluding proprietary packages) would be procured under ICB procedures;

For contracts below the ICB threshold, procurement would follow the procurement practices of private industry in Philippines which the Bank has examined and found acceptable, consisting at a minimum of the following:

(ii) contracts between US$200,000 and US$2 equivalent million would be procured on the basis of comparison of price quotations solicited from at least three qualified suppliers from at least two countries; and

(iii) contracts below US$200,000 would be procured on the basis of comparison of price quotations solicited from at least three qualified suppliers; and

(iv) proprietary items may be procured directly from the supplier in accordance with procedures acceptable to the Trustee.

Consultants

(iv) Contracting of Consultants shall be engaged on the basis of the "Guidelines for the Use of Consultants by World Bank Borrowers and the World Bank as Executing Agency" (August 1981).
(b) Prior review is required for the following contracts and bid packages:

(i) over US$ 2 million;

(ii) for proprietary technology and equipment;

(iii) for contracts above $50,000 for individual consultants and for contracts above US$100,000 with consulting firms;

B. Disbursement

3. Project funds are expected to be disbursed according to the following standard disbursement schedule: 14% in 1994, 48% in 1995, 34% in 1996, and 4% in 1997. Closing date for the project is June 30, 1998. A Special Account would be established under this project to facilitate disbursement of the OTF grant. LBP will be responsible for keeping the records of this Special Account and for submitting the applications for withdrawal and replenishment. The following disbursement guidelines have been agreed upon:

(i) **Between Bank and LBP:**

Disbursement will follow the procedures given in the Disbursement Handbook published by the Bank in 1992, and in the Disbursement Letter which will be issued after the Grant has been signed. Once the Grant Agreement has been approved and is effective, and after receipt of a withdrawal application from LBP, the Bank will make an initial deposits of up to US$ 1.5 million into a Special Account which LBP would open. Replenishment of this Special Account and all other disbursements would be made against full documentation, except for expenditures under contracts valued below US$200,000 for which the Bank will accept Statements of Expenditures (SOE). Supporting documents for SOEs including contracts, procurement documentation, and evidence of payment should be kept in a central location for examination by independent auditors and Bank staff during supervision missions.

(ii) **Between LBP and Subproject:**

Up to US$ 2 million per contract, LBP will disburse to the subproject proponent for eligible expenses without prior review by the Bank (see procurement guidelines).

Disbursement in Tranches: For large projects (over US$0.5 million) with a large share (proposed minimum threshold: over 50%) of grant funding for operating costs (as opposed to investment costs), LBP should propose a disbursement plan in two or more tranches. Release of the tranches would be based on receipt of progress reports satisfactory to LBP and the Ozone Desk.
PHILIPPINES

MONTREAL PROTOCOL OZONE DEPLETING SUBSTANCES
PHASE OUT INVESTMENT PROJECT

TECHNICAL ANNEX V: GUIDELINES FOR SUBPROJECT ELIGIBILITY, GRANT FUNDING, AND
PREPARATION OF APPRAISAL REPORTS

The following is a summary of guidelines for subproject eligibility, grant funding and appraisal reports of subprojects requesting funding from the Ozone Trust Fund; these guidelines are derived from Guidelines issued by the Multilateral Fund Executive Committee and by the World Bank.

A. Subproject Eligibility

1. Subprojects should be on priority list included in the Country Program or should be identified by DENR as essential to achieve the objectives of ODS phase-out in the Philippines. Subprojects should have direct and demonstrable results in reducing ODS consumption in the country. They should be cost effective and be based on environmentally sound technologies to substitute for or recycle ODS.

2. Successful implementation of subprojects may sometimes depend directly on appropriate policies and regulations. In these cases, these policies should be addressed in the appraisal report for consideration by the MFEC. In general, however, overall economic and industrial policy reforms are not to be addressed in the context of subprojects but in the ODS Country Program as approved by the MFEC.

B. Guidelines for Grant Funding

3. OTF funding is a grant to the enterprise/agency/institution implementing the subproject. The grant is calculated in economic terms for the "incremental costs" as elaborated below. Methodology for calculating incremental costs should be consistent with eligibility as defined by MFEC and with the Bank’s interpretation of incremental costs.

4. Determination of Incremental Costs:

   (a) Definition. Incremental costs are defined as the net present value of incremental economic subproject costs (investment capital plus operating costs net of operating benefits) discounted at the economic cost of capital in the country (10% will be used in Philippines) in constant economic prices over the economic life of the subproject. When appropriate, risks associated with technology, market and financing of undertaking the subproject should be taken into consideration.

   (b) Co-financing. In cases where the subproject proponent has to put up its own capital (or commercial loans) to co-finance part of the subproject costs, the necessity for providing sufficient financial incentive to undertake the subproject should be considered, i.e. enterprise obtains an acceptable return on its own capital. The Grant amount could then be determined in such a way that the Economic Rate or Return on the risk capital is 10% (real terms). For comparison, also a financial rate of return for the subproject should be calculated. If the financial rate of return differs substantially from the ERR (e.g. because of major distortions of market prices) and would be unacceptably low for the enterprise,
the grant amount may be determined based on a minimum FRR. Such situation should be raised as an issue in the EPS/appraisal report. The minimum FRR should be determined based on an objective assessment of the country's local financial sector and should correspond to the best judgement of a reasonable return on capital expectation within the country's industrial sector. In many cases subproject proponents will view ODS phaseout investments as necessary business costs and may not require financial incentives in addition to a grant for incremental costs.

(c) Ownership. An enterprise/subproject is eligible for funding in direct proportion to the percentage of local ownership of the enterprise.

(d) Exports. A subproject is eligible for funding except those located in a "free zone" and producing for exports only.

(e) Operating Costs and Savings. Under present MFEC guidelines, recurring costs net of operational savings are eligible for grant funding only for the first 4 years of project operation. Reimbursements for longer periods have to be approved on a case by case basis.

(f) Duties and taxes. Import duties and other direct taxes are not eligible for grant funding. The recipient Government should agree in the Grant Agreement to exempt imports under this project from import duties. (Important issues related to the exemption of taxes and duties should be addressed in the appraisal report for sub-projects).

C. Subproject Priority and Unit Abatement Costs

5. Subprojects with the most cost effective technology and with the lowest unit abatement cost of ODS in the shortest period of time in terms of global impact should receive priority. Relative cost effectiveness is measured by "unit abatement cost", a comparative index defined by the following:

\[ A = \frac{C(F) + (OC-OS)}{W} \]

Where:

A = Unit abatement cost, $/kg ODP saved/year (at full operation)
C = Incremental capital cost, including all initial one time costs such as technology, training
F = Capital recovery factor; the annualized capital cost charges, discounted at a standard discount rate of 10% per year, over the economic life of the project.
OC = Annual Operating Costs at full operation
OS = Annual Operating benefits at full operation
W = Quantity of ODS saved annually expressed as ODP units

6. The purpose of unit abatement cost calculation is to give a relative ranking of projects across countries and within same sector. Lower unit abatement costs correspond to higher priority in cost effectiveness. The unit abatement cost is calculated at standard discount rates to facilitate cross country comparisons.
D. Elements of the Subproject Appraisal

LBP would prepare appraisal reports along the following guidelines in a format acceptable to the Bank, including as a minimum the following points:

7. **Subproject scope** - including a full description of the proposed technology and the source of technology supply. In selected cases, description should refer to technical cooperation agreements between the enterprise and an international technology supplier. Where necessary, the description should distinguish between components relating to ODS phase out directly and other components, such as expansion of output or product upgrading which are not eligible for OTF grant funding.

8. **Schedule and quantity of ODS reduction** - (expressed as ODS and ODP), which will be phased out as a direct result of the subproject, on annual and total basis.

9. **Subproject costs** - divided into (a) components relating to ODS phase out and (b) other components. Costs should be broken down into investment and operating costs, costs eligible for OTF funding, foreign exchange and local costs, and expenditures already incurred for which retroactive financing will be requested.

10. **Review of technical feasibility of the subproject** - to determine the soundness of the technical proposal, based on local and international experience.

11. **Economic and financial feasibility of the subproject** - to determine the economic and financial soundness of the subproject. The methodology would follow standard Bank methodology and the specific guidelines for OTF funded projects. Any significant difference between FRR and ERR should be explained. Any policy distortion that effects the successful implementation of the subproject or effecting the implementation of the country's ODS CP should be identified, analyzed and appropriate recommendations made for consideration of the MFEC.

12. **Financial analysis of enterprise** - to determine the soundness of the subproject proponent by using a set of minimum financial indicators which reflect the enterprise's financial viability and its ability to implement the subproject. The indicators should be determined based on local conditions and should be consistent with commercial practice in the country.

13. **Financing arrangements** - description of sources, terms and conditions, divided into (a) incremental costs related to ODS phase out to be financed as an OTF grant, (b) amount to be provided by enterprise from its own resources; and (c) local and/or foreign loans to be financed through commercial loans from local and/or foreign institutions (at commercial interest rates). The financing plan should be confirmed at the time of appraisal.

14. **Disbursement Plan** - the amount and schedule of disbursements, including, where applicable, the conditions for disbursement under multiple tranches, e.g. completion of certain measures and submission of satisfactory progress reports.

15. **Subproject implementation arrangements** - description of management, engineering and technology acquisition, procurement, installation, operation,
marketing, disassembling of phased out ODS equipment (to ensure that it cannot be reused) and schedule for all implementation steps.

16. **Environmental aspects** - description of environmentally critical aspects of the subproject and measures to address the environmental risks. Furthermore, a certification that the subproject proponent has complied with local environmental regulations has to be attached to the appraisal report.

17. **Reporting requirements** - description of the scope, the number and the timing of progress reports and other information which the subproject proponent has to submit to LBP (with copy to DENR), according to the practice applied by LBP in similar subprojects. As a minimum, the enterprise would submit one subproject progress report at the time when the proposed investment activities have been implemented and the new installations are operating. In cases where multiple disbursement tranches have been agreed upon, the enterprise would submit one progress report prior to each tranche. The enterprise would maintain separate records and accounts adequate to reflect resources and expenditures in respect to the sub-project.

18. **Subgrant Agreement** - attached to the appraisal report, LBP would submit a draft agreement between LBP and the subproject proponent, based on a model agreement approved by the Bank prior to effectiveness of the OTF Grant Agreement. The subgrant agreement spells out the responsibilities of the subproject proponent and sanctions in case of non-compliance.