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

Fourth Meeting
Nairobi, 17-18 June 1991

REVISED WORK PROGRAMME AND RELATED BUDGET

OF THE UNITED NATIONS DEVELOPMENT PROGRAMME

I. INTRODUCTION

1. The Interim Multilateral Fund of the Montreal Protocol is intended to provide financial and technical assistance to developing countries which are parties to the provisions of the Montreal Protocol. The World Bank, UNDP and UNEP, in agreeing to serve as Implementing Agencies, have accepted individual roles and responsibilities as outlined in the decisions of the Second Meeting of the Parties of the Montreal Protocol on Substances that Deplete the Ozone Layer, held in London in June 1990.

2. At the Second Meeting of the Executive Committee of the Interim Multilateral Fund of the Montreal Protocol (17-19 December 1990, Montreal), the three designated Implementing Agencies agreed to prepare work programmes for their proposed activities in 1991 under the Multilateral Fund in accordance with the different functions accorded them by the Parties and by the Executive Committee. These functions were subsequently confirmed in a Tripartite Agreement between the Agencies.

3. Following informal consultations between the Implementing Agencies, preliminary 1991 work programmes were submitted to the Third Meeting of the Executive Committee (15-19 April 1991, Montreal). The Implementing Agencies were requested by the Executive Committee to revise their 1991 work programmes and resubmit them, through the Chief Officer of the Fund Secretariat, for consideration by the Executive Committee at its Fourth Meeting during 17-18 June 1991 in Nairobi. It was observed that there was some overlap and duplication among the work programmes of the three Implementing Agencies and that some proposals were over-ambitious and/or imprecise. While, in some countries, the implementing agencies may have amongst themselves agreed on a certain lead agency, the Executive Committee stressed the right of each recipient country to select a preferred implementing agency to execute certain activities. The Executive Committee recommended that representatives of the Agencies meet, before finalizing their 1991 work programmes, in order to co-ordinate their activities and project proposals.

II. UNDP PROGRAMME STRATEGY AND FOCUS

4. The operational success of the Montreal Protocol and the Multilateral Fund will depend on an equal level of commitment and trust among all parties. In transforming industries and, in general, meeting the conditions of the Protocol, developing countries will

carry significant economic risk. If this risk is to be fully accepted, operations must embody the principles of equal cooperation and partnership. To this effect, participating developing countries must be fully involved from the outset in the planning and preparation of programmes and projects and must be in full control of their respective programmes. The actions of UNDP in preparing and implementing this work programme is governed by these principles and reflects the environment/development emphasis advocated in UNDP's Environmental Management Guidelines (EMG).

5. UNDP's extensive network of UNDP Field Offices in developing countries (113 in all) have strong in-country links to a broad spectrum of public and private sector interests. Through its Field Offices, UNDP is in continuous contact with the development-related operations of recipient member Governments. UNDP is thus uniquely positioned to be a field-level, country-based coordinator of the various efforts to control ozone depleting substances. It is also in a position to react quickly and flexibly to requests and responses from Governments. Donor co-ordination and assisting central government agencies co-ordinate the activities of local interests including private industry and NGOs are particularly important considerations in the multidisciplinary ozone layer protection area.

6. The limited experience which is available on ozone layer protection shows that human resource development is particularly important in the transfer of new processes, new technologies and new materials which will be required to carry through the necessary industrial transformations. A major effort will thus be needed to develop on-site training programmes so as to most effectively train developing country technicians. UNDP, with its proven track record and a comparative advantage in providing technical assistance for human resource development in developing countries, will take the lead in the design and implementation of these activities.

7. As UNDP will be primarily involved with pre-investment activities and training under the Multilateral Fund, these activities will constitute the major components of its work programme. The success of pre-investment activities will be influenced by donor co-operation since several bilateral agencies are actively assisting developing countries in the analysis and phaseout of ozone depleting substances. UNDP will work closely with the World Bank on those pre-investment studies leading to capital investment projects. UNDP will also collaborate closely with UNEP on policy and training issues to ensure consistency with Montreal Protocol provisions and objectives.

8. It has been determined that the operational cycle will comprise two major phases; first, development of a country programme, and second the design and implementation of technical assistance and investment projects.

9. In the event that a project proposal from an Article 5, paragraph 1 country is received which is technically acceptable and cost-effective but which does not fit within the guidelines specified above, UNDP will assist that country in its attempts to secure funding for the project from other sources.

10. The key objectives of the UNDP Programme are: (a) to achieve a cost-effective reduction in the production and consumption of controlled substances in developing countries; and (b) to promote effective technology transfer through technical assistance and on-site training. This stresses that increased technological self-reliance in developing countries will depend on an appropriate balance between technical training and retooling/retrofitting of equipment.

III. THE UNDP 1991 WORK PROGRAMME

11. As a reduction in the consumption of controlled substances in developing countries can have significant economic and commercial impacts in those countries, it is essential that they participate fully at every stage in the work programmes of the implementing agencies. UNDP has found that several developing countries - particularly the smaller ones - know relatively little about the Multilateral Fund and on their rights and obligations as Article 5, paragraph 1 Parties. This makes it difficult to draw up a precise work programme until the country studies are completed, and until a clearer picture of the industrial structure and the consumption of controlled substances emerges.

12. UNDP's 1991 work programme would cover 16 Article 5, paragraph 1 countries. They are:

1) Argentina
2) Bangladesh
3) Costa Rica
4) Egypt
5) Ghana
6) Iran
7) Jordan
8) Kenya
9) Malaysia
10) Mexico
11) Nigeria
12) Philippines
13) Thailand
14) Trinidad and Tobago
15) Uruguay
16) Venezuela

13. A description of country activities planned during 1991 follows.

1. ARGENTINA

Argentina is a relatively industrialized country with a population of 32 million. It is classified as a "developing country" for the purposes of the Montreal Protocol, although its Gross Domestic Product (GDP) is in excess of US$ 4,000 per annum. The country has experienced severe economic problems in the past decade with an average annual inflation rate of over 200%. Because of its beef consumption and production the country has a very large refrigeration industry and refrigerators in households are widespread. The country produces about 5,000 tonnes a year of CFC-11, CFC-12 and HCFC-22. There seems to be some confusion on the status of studies on ozone layer protection, and the Government has expressed a request for UNDP assistance in coordinating activities and helping initiate a Country Study/Programme with special emphasis on technical assistance requirements. This would be an input to joint UNDP/World Bank pre-investment feasibility activities in Argentina in 1992.

For 1991, US$ 25,000 has been budgeted to field a reconnaissance survey by national consultant firms or national experts which should be adequate to produce a Country Study by end-1991.

Estimated expenditures in 1991	US$
a) national consultant fees ($ 4,000/mo. x 5 months)	20,000
b) travel and subsistence for the national experts in Argentina	4,000
c) miscellaneous including report preparation	1,000
Total	25,000

2. BANGLADESH

Bangladesh with a population of 116 million has an important and growing consumer durable industry which may well be looking to beginning to export consumer goods to other countries in the region. At the request of the Government, a UNDP consultant visited Dhaka during 26-28 May 1991 and had detailed discussions with officials from the Ministry of Environment and Forests, the Ministry of Industries, the Bangladesh Chemical Industries Corporation and UNIDO. All supported the need for the proposed UNDP reconnaissance study to focus especially on refrigeration in the fishing industry and cooling in the rayon mills in Chittagong. The reconnaissance study would also evaluate the need for a demonstration ammonia filling facility utilizing high pressure cyclinders. As agreed, this reconnaissance study would be carried out in conjunction with the World Bank.

Also, since staff in the Ministry of Environment and Forests responsible for the Ozone Programme are significantly unaware of international technological developments in the area, institutional strengthening of the Ministry was requested through provision of technical training of staff through participation in relevant technical meetings, study tours and technical workshops where they can be exposed to planning, technical content and implementation of specific programmes for the phase out of controlled substances.

A sum of US$ 55,000 has been allocated as UNDP's expenditure in 1991, comprising $30,000 for the previously proposed reconnaissance study and an additional $25,000 for staff training.

Estimated expenditures in 1991	US$
a) national consultant fees for reconnaissance study ($ 4,000/mo. x 5 months)	20,000
b) UNDP technical consultant mission during the reconnaissance study	5,000
c) miscellaneous including report preparation and travel/subsistence costs within Bangladesh	5,000
d) training of five national staff through study tours and participation at relevant meetings and workshops (specifics to be determined)	25,000
Total	55,000

3. COSTA RICA

Costa Rica has only recently become a Party to the Protocol and very little information on its production and consumption of ozone depleting substances is available. The country has a population of 3 million and a relatively small industrial sector. It is proposed that a Reconnaissance Survey be carried out in 1991 by a local consulting firm to establish the size and scope of controlled substances and recommend solutions with technical advice being provided through a brief UNDP technical consultant mission. An expenditure in 1991 of US$ 20,000 is proposed comprising:

Estimated expenditures in 1991	US$
a) national consultant fees ($ 4,000/mo. x 3 months)	12,000
b) UNDP technical consultant mission	5,000
c) miscellaneous including report preparation and travel/subsistence within Costa Rica	3,000
Total	20,000

4. EGYPT

The World Bank assisted Egypt in carrying out a national study to update the earlier study done by the Government of Egypt in association with the US Environmental Protection Agency. This study found that consumption of controlled substances was falling and that a complete ban on the use of CFCs as propellants in aerosols was mandated on 1 January 1991. The Government of Egypt has thus shown itself to be well aware of its international obligations under the Protocol. This study can be converted into a Country Programme for Egypt. It has been proposed that the World Bank take the lead, with UNDP cooperation and assistance, in helping the Government of Egypt develop a Country Programme as a model case study.

The Government of Egypt will require some technical assistance from UNDP in 1991 to assist Egyptian industry in planning for the phase out of controlled substances and to examine progress made by selected industrialized countries in several industrial subsectors. A sum of US$ 61,000 has been budgeted to provide for the short-term training of 10 Egyptian technicians through study tours in Europe lasting 20 days each.

The Government has now also requested UNDP technical assistance in the implementation of two pre-feasibility studies, the first on substituting hydrocarbons for CFCs in aerosol applications, and the second in the construction of ice plants (that use ammonia) to substitute for refrigerated trucks that use CFCs. The estimated cost of these two pre-feasibility studies be $65,000 including two international consultants, six national experts, international and national travel and miscellaneous costs. Details remain to be finalized between UNDP and the Government and this activity will be undertaken in close co-ordination with the World Bank.

The proposed $126,000 expenditure in 1991 would comprise:

Estimated expenditures in 1991	US$
a) round-trip travel between Cairo and Europe for the ten Egyptian study tour trainees ($2,500 each x 10)	25,000
b) subsistence expenses for the study tour participants ($130/day x 20days x 10)	26,000
c) miscellaneous (e.g. report preparation, study tour fees (if any), terminal expenses, etc.)	10,000
d) implementation of two pre-feasibility studies (details to be finalized)	65,000
Total	126,000

5. GHANA

The World Bank has just completed a preliminary Reconnaissance Study of the situation in Ghana and has concluded that consumption of controlled substances is very small (about 100 tonnes per annum). Therefore the need for investment to reduce these substances is low. UNEP would take the lead in approaching Ghana as a low-consumption model case study country of special interest to the implementing agencies.

There is need, however, for national staff training in the maintenance of refrigeration and air-conditioning units and assistance is also required to establish a small demonstration shop to teach correct servicing procedures. To meet these requirements, it is proposed that UNDP send in 1991 an equipment servicing training consultant to Ghana, following approval by the Government, for a period of 2 months to establish such a service and to advise on CFC recycling. The detailed terms of reference will be drafted by UNDP.

The estimated 1991 expenditures of US$ 99,000 would comprise:

Estimated expenditures in 1991	US$
a) international expert: $500/day x 45 days	22,500
b) travel of the international expert	4,000
c) subsistence for the international expert ($125/day x 60 days)	7,500
d) establishment of a demonstration shop/programme including facilities, support staff, national consultant roster, demonstration equipment, part-time national technical expertise, etc.	60,000
e) miscellaneous including local travel, training materials, documentation, etc.	5,000
Total	99,000

6. IRAN

Iran has recently become a Party to the Protocol and little is known about the situation with respect to ozone depleting substances. The Department of Environmental Protection has requested a 2-3 week UNDP exploratory mission to brief the authorities on the provisions of the Protocol, to determine the situation with respect to the production and consumption of controlled substances, and to make a preliminary assessment of Iran's technical assistance needs. Two national experts would be recruited for 1 month each to work with the international expert in the above tasks.

UNEP would be invited to join in the mission. The estimated cost of UNDP-provided assistance is US$ 30,350 comprising:

Estimated expenditures in 1991	US$
a) international expert: $500/day x 18 days	9,000
b) travel of the international expert	4,000
c) subsistence for the international expert ($350/day x 21 days)	7,350
d) national expert fees ($ 4,000/mo. x 1 months x 2)	8,000
e) miscellaneous including local travel, documentation, etc.	2,000
Total	30,350

7. JORDAN

While the World Bank would be the lead agency in Jordan, UNDP has been informally approached by Jordan for certain technical assistance requirements. Consultations are underway with the Government on the possible local availability of suitable expertise.

It is tentatively proposed that a joint World Bank/UNDP technical mission of two weeks duration could be fielded in Jordan in Fall 1991. For the joint mission, the technical assistance component provided by UNDP would comprise two international consultants for two weeks each, the first a chemical engineer to review process engineering problems, and the second an industrial training expert to estimate technical assistance training needs.

The estimated cost of this technical assistance would be US$ 29,600 comprising:

Estimated expenditures in 1991	US$
a) two international experts ($500/day x 12 days x 2)	12,000
b) round-trip travel of the two experts ($4,000 x 2)	8,000
c) subsistence for the international experts ($170/day x 15 days x 2)	5,100
d) miscellaneous including local travel, training materials, documentation, etc.	4,500
Total	29,600

8. KENYA

Reconnaissance work has been carried out in Kenya by UNEP, the Government of Sweden and the World Bank. The consumption of controlled substances is around 300 tonnes per annum. The study concluded that the most cost-effective means of reducing the consumption of controlled substances was to establish a demonstration/training unit for maintenance and recharging of refrigeration and air-conditioning equipment. While this falls within UNDP's terms of reference, given UNEP's location in Nairobi, UNDP would propose co-operating on this project with UNEP.

The first phase of this project would be implemented in 1991. An experienced refrigeration/air-conditioning consultant be engaged to consult with and advise industries in Kenya and to draw up detailed designs (and detailed costing) for a demonstration/training unit. Local expertise in the form of an architect, an engineer and a surveyor would also be recruited, either independently or though a qualified consultant firm. Expenditure would be committed towards establishment of the demonstration/training unit.

The estimated costs of this phase in 1991 is US$ 115,100 comprising:

Estimated expenditures in 1991	US$
a) refrigeration/air-conditioning consultant ($500/day x 45 days)	22,500
b) round-trip air travel of the expert	4,000
c) subsistence for the international expert ($110/day x 60 days)	6,600
d) national experts (architect, engineer, surveyor) ($2,000/mo. x 2 months x 3)	12,000
e) establishment of a demonstration/training unit including facilities, support staff, national consultant roster, demonstration equipment, part-time national technical expertise, etc.	60,000
f) miscellaneous including local travel, training materials, documentation, etc.	10,000
Total	115,100

9. MALAYSIA

The Government of Malaysia is in the process of completing a Country Study with the assistance of the Government of Canada. It is anticipated that this Country Study will be completed by mid-1991. It would identify technical assistance requirements and potential investment projects.

At the request of the Government, a UNDP consultant visited Kuala Lumpur on 29 May 1991 and had detailed discussions with officials in the Department of Environment, Ministry of Science and Technology. The Government has established six industrial sector groups covering respectively, solvents, air-conditioning, refrigeration, halons, foams and aerosols. Of particular concern is the automobile air-conditioning sub-sector. Independent estimates show that of the approximately 4 million cars in Malaysia, around 30% are air-conditioned. Each automobile uses 200 grammes of CFC-12 which is changed 3-4 times a year. So on average about 750 grammes of CFC-12/automobile/year are released which gives a total of around 900 tonnes/annum. Malaysia is keen to replace CFC-12 by HFC-134a and to introduce a large-scale recycling programme.

UNDP technical assistance would be requested in the training of vehicle servicing mechanics in the conservation, leakage control and recycling of CFCs in automobile air-conditioning units prior to or immediately following the initiation of the recycling programme.

A sum of US$ 50,000 has been allocated for the above training programme. This represents no increase from the figure proposed in the 28 May 1991 work programme. Details of the training programme remain to be worked out between UNDP and the Government of Malaysia.

Estimated expenditures in 1991: US$ 50,000

10. MEXICO

Mexico was one of the first developing countries to sign and ratify the Protocol. It consumes around 8,130 metric tonnes of Group I substances, 9,000 metric tonnes of Group III substances and 260 metric tonnes of halons. Mexico is committed to phase out the use of controlled substances and, as reported by the World Bank, the Secretariat for Urban Development and Ecology (SEDUE) has convinced two CFC producers and seven industrial users to sign voluntary agreements to reduce the production and consumption of ozone depleting substances, to implement recycling and other conservation measures and, in some cases, to adopt alternative technologies.

While the World Bank has been proposed as the lead agency to develop the Mexico programme as a global model country programme, the Government has also officially requested UNDP technical assistance (letter dated 21 May 1991) to assist SEDUE in the following areas:

a) preparation of an overview of identified projects concerning the production, consumption and uses of controlled substances in Mexico;
b) Evaluation of identified options to reduce the production and consumption of controlled substances, including monitoring, technology transfer and building up technical capacities; and

c) Determination of priorities underlying adoption of technological alternatives or substitute product development.

The specifics of the above programme will be worked out between UNDP and the Government over the next few months with a starting date of October 1991. UNDP will consult and co-ordinate these activities with those of the World Bank which is the lead agency in Mexico. The programme would be executed by SEDUE utilizing primarily national experts, assisted by one or two short-term international experts as required. A provisional estimate of technical assistance funding requirements is US$ 50,000 in 1991, to be fully documented once further details are received from SEDUE.

Estimated expenditures in 1991: US$ 50,000

11. NIGERIA

The World Bank carried out a reconnaissance survey in Nigeria in December 1990 and found that consumption of controlled substances averages 3,500 to 4,000 tonnes per annum. The World Bank has proposed that a technical survey of institutions using controlled substances be carried out. The Bank study also highlights the need for technical assistance by the Federal Environmental Protection Agency. Preliminary enquiries indicate that there is little awareness of the ozone protection issue in Nigeria and there is a need to raise awareness.

It is therefore proposed that UNDP and UNEP jointly organize an intensive two-day in-country seminar for 40 industrialists using controlled substances in their manufacturing processes. UNDP would be responsible for seminar arrangements. Five external speakers/experts would be invited, with each allocated three days of fees: two days for speaking at the seminar and one day for preparation time. The cost to UNDP in arranging this seminar is estimated at US$ 49,650 comprising:

Estimated expenditures in 1991	US$
a) five international speakers/experts ($500/day x 3 days x 5)	7,500
b) round-trip travel of the five experts ($4,000 x 5)	20,000
c) subsistence for the international experts ($175/day x 5 days x 5)	3,750
d) subsistence costs for national participants ($70/day x 3 days x 40)	8,400
e) miscellaneous including local travel, training materials, documentation, rental of facilities secretarial and conference services, etc.	10,000
Total	49,650

12. PHILIPPINES

An EEC-funded Country Study has just been completed in the Philippines. This Study has identified a number of required technical assistance measures. While the World Bank has been proposed as the lead agency in the Philippines, the Government has requested UNDP technical assistance in following up certain recommendations of the EEC Study.

In order to assess these technical assistance requirements, and at the request of the Government, a UNDP consultant visited Manila during 5-7 June 1991. He worked closely with the World Bank representative and meetings were held with officials from the Department of Environment and Natural Resources. Those participating included officials from the Department of Trade and Industry, other government representatives, industry and importing company representatives, NGOs and UNIDO. The Philippines is keen to move rapidly in reducing its consumption of controlled substances.

A detailed proposal for a training programme for air-conditioning and refrigeration technicians in the use and recycling of controlled substances has been proposed by a national NGO (Likhaan Institute Foundation Inc.) and was submitted to the UNDP consultant through the Department of Environment and Natural Resources. This training programme would cover 30 technicians in 5 locations throughout the Philippines and has been tentatively costed at $64,000. It is proposed that UNDP consult with all parties on the final form of the training programme so that it complements proposals being made by the World Bank. A sum of US$ 64,000 has been allocated for this training programme in 1991

Estimated expenditure in 1991: US$ 64,000

13. THAILAND

UNEP and the Government of Sweden have been assisting Thailand in this area. The Government proposes to implement a Country Study with the assistance of the Government of Australia. The World Bank has undertaken a reconnaissance survey of the situation concerning controlled substances in Thailand and has prepared terms of reference for a proposed feasibility study for use of non-CFC technology in solvent and foam applications.

While the World Bank has been proposed as the lead agency in Thailand, the Government has requested UNDP technical assistance in following up certain recommendations of the previous studies. In order to assess these technical assistance requirements and at the request of the Government, a UNDP consultant visited Bangkok during

30-31 May 1991. Unofficial statistics show that consumption of controlled substances has grown from 6,000 metric tonnes in 1986 to around 11,000 metric tonnes at present. The World Bank has proposed three technical feasibility studies on air-conditioning recycling, on solvents recycling and on substitution of controlled substances.

The UNDP consultant was informed that a serious concern is that the office responsible for ozone layer protection, the Hazardous Substances and Chemicals Control Division in the Ministry of Industry, requires strengthening in the implications of technology transfer, in the economics and potentials of alternative chemicals and processes and familiarization with application techniques through on-site factory visits. UNDP would implement this programme in consultation with UNEP.

The proposed $50,000 expenditure in 1991 would comprise:

Estimated expenditures in 1991	US$
a) recruitment of a national engineer to focus on ozone layer protection issues (one year assignment)	12,000
b) training of national staff in the planning and implementation of programmes to phase out controlled substances, through factory visits and participation at relevant meetings (details to be finalized)	30,000
c) equipment and subscription to the OZONET system	8,000
Total	50,000

14. TRINIDAD & TOBAGO

Immediately following the London meeting of the Parties in June 1990, the Government of Trinidad and Tobago approached UNDP for assistance in defining their position relative to the Montreal Protocol. With UNDP support, a Working Group has been formed by industrial manufacturers in the country with a view to developing a Country Study and a series of projects. World Bank staff have also been active in the country and both agencies have offered to assist the Ministry of Environment if follow-up activities are requested. The appropriate lead agency will be decided following receipt of the Government's decision on technical assistance requirements and preferred agency.

While the report of the Working Group is expected in June 1991, it has been indicated that Trinidadian manufacturers of aerosols would benefit from technical assistance from Mexico which is quite

advanced on the conversion from CFCs to hydrocarbon propellants. While UNDP will collaborate with the World Bank, provision is being made for UNDP to facilitate technical assistance from Mexico to Trinidad and Tobago in the aerosol subsector.

The estimated cost in 1991 is US$ 53,800 comprising:

Estimated expenditures in 1991	US$
a) Mexican consultant fees to advise Trinidad & Tobago ($4,000/month x 2 months x 2)	16,000
b) round-trip travel of the two experts ($1,000 x 2)	2,000
c) subsistence for the Mexican experts ($115/day x 60 days x 2)	13,800
d) round-trip travel between Mexico and Trinidad & Tobago for six T&T study tour trainees ($1,000 each x 6)	6,000
e) subsistence expenses for the study tour participants ($100/day x 10 days x 6)	6,000
f) miscellaneous including study tour fees if charged, documentation, report preparation, terminal expenses, etc.	10,000
Total	53,800

15. URUGUAY

Uruguay has recently become a Party to the Protocol and little is known about the situation with respect to ozone depleting substances. UNDP is contacting the appropriate government officials through the UNDP Resident Representative in Montevideo. Provision is being made for a two-week consultant mission to brief the authorities on the provisions of the Protocol and to make a preliminary assessment of Uruguay's technical assistance needs. The estimated cost is US$ 13,050 comprising:

Estimated expenditures in 1991	US$
a) international expert: $500/day x 12 days	6,000
b) travel of the international expert	4,000
c) subsistence for the international expert ($70/day x 15 days)	1,050
d) miscellaneous including local travel, documentation, etc.	2,000
Total	13,050

16. VENEZUELA

Venezuela is in the process of completing a Country Study and has approached UNDP for technical assistance in 1991. While the detailed conclusions and findings of the study are not yet available, it is anticipated that technical assistance would be needed in the areas of cold storage facilities, domestic and industrial refrigeration and the recycling of air-conditioning equipment.

This assistance can be provided either in the form of international experts or as part of in-country technical training seminars. A sum of US$ 30,000 has been reserved for this assistance, pending further discussion with the concerned government officials, though preliminary indications are that the financing needs would be much higher. It is anticipated that the work programme in Venezuela would be finalized in July 1991. If general training activities are involved, UNDP would invite UNEP to collaborate in the work programme.

Estimated expenditures in 1991: US$ 30,000

IV. SUMMARY TABLE OF UNDP'S 1991 WORK PROGRAMME ACTIVITIES AND BUDGETS

Country	Proposed US$ Expenditure	Components
Argentina	25,000	Reconnaissance survey by national experts to assess technical assistance requirements.
Bangladesh	55,000	Joint UNDP/World Bank reconnaissance study with UNDP using national consultants and a UNDP technical consultant; also technical training of five staff in the Ministry of Environment and Forests.
Costa Rica	20,000	Reconnaissance survey to assess technical assistance requirements by national consultants and a UNDP technical consultant.
Egypt	126,000	External short-term technical training for 10 industry technicians in phase out of controlled substances. Also implementation of two pre-feasibility studies in close co-ordination with the World Bank programme in Egypt.
Ghana	99,000	Equipment servicing training consultant and establishment of a demonstration shop or programme for servicing refrigerators and air-conditioners.
Iran	30,350	Determine production and consumption of controlled substances and assessment of technical assistance needs.
Jordan	29,600	Joint UNDP/World Bank technical mission. UNDP to provide a chemical process engineer and an industrial training expert.
Kenya	115,100	Establish a demonstration/training unit for maintenance and recharging of refrigeration and air-conditioning equipment using one international and three national experts.
Malaysia	50,000	Training of vehicle servicing mechanics in conservation, leakage control and recycling of CFCs in automobile air-conditioning units prior to or immediately following initiation of a national recycling programme.

Country	Proposed US$ Expenditure	Components
Mexico	50,000	Preparation of an overview of identified projects on controlled substances, evaluation of identified technical options to reduce their production and consumption, and determination of priorities underlying adoption of technological alternatives or substitute product development.
Nigeria	49,650	Joint UNDP/UNEP 2-day in-country seminar for 40 industrialists using controlled substances in their manufacturing processes.
Philippines	64,000	Training programme for 30 air-conditioning and refrigeration technicians at five locations in the use and recycling of controlled substances working with a national NGO (Likhaan Institute Foundation Inc.).
Thailand	50,000	Training of Government technical staff in the implications of technology transfer, in the economics and potential of alternative chemicals and processes and familiarization with application techniques through on-site factory visits. UNDP would implement this programme in consultation with UNEP.
Trinidad & Tobago	53,800	Technical assistance on aerosol subsector using Mexican consultants and study tour to Mexico for six national technical staff
Uruguay	13,050	Two week proposed consultant mission to assess technical assistance requirements.
Venezuela	30,000	Potential technical assistance in the areas of cold storage facilities, domestic and industrial refrigeration, the recycling of air-conditioning equipment and technical training of staff.
TOTAL	860,550	ACTIVITIES IN 16 COUNTRIES

V. SUMMARY TABLE OF UNDP 1991 ESTIMATED TOTAL EXPENDITURES
(Revised)

	US$
Country Activities	
A. Country project and programme activities activities in 16 countries	860,550
C. Support costs for projects will depend on UNDP financial rules and regulations when projects are executed by UNDP/OPS, or on the financial rules and regulations of the selected Executing Agencies and can range up to 13%.	111,850
Total	972,300

UNDP Estimated Costs by Expense Category
(November 1990-December 1991)

1. Salaries of professional/technical/clerical staff	117,500
2. Travel and subsistence costs of professional and technical staff	30,000
3. Consultant fees	87,000
4. Consultant travel and subsistence costs	35,000
5. Miscellaneous including telecommunications charges, equipment and supplies	20,000
Total	289,500

TOTAL ESTIMATED EXPENDITURE FOR THE UNDP 1991 PROGRAMME: $1,261,800

Note:1) Other UNDP costs, both at headquarters and field offices, estimated at around $120,000 over the period November 1990 - December 1991 are being borne by UNDP itself.

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