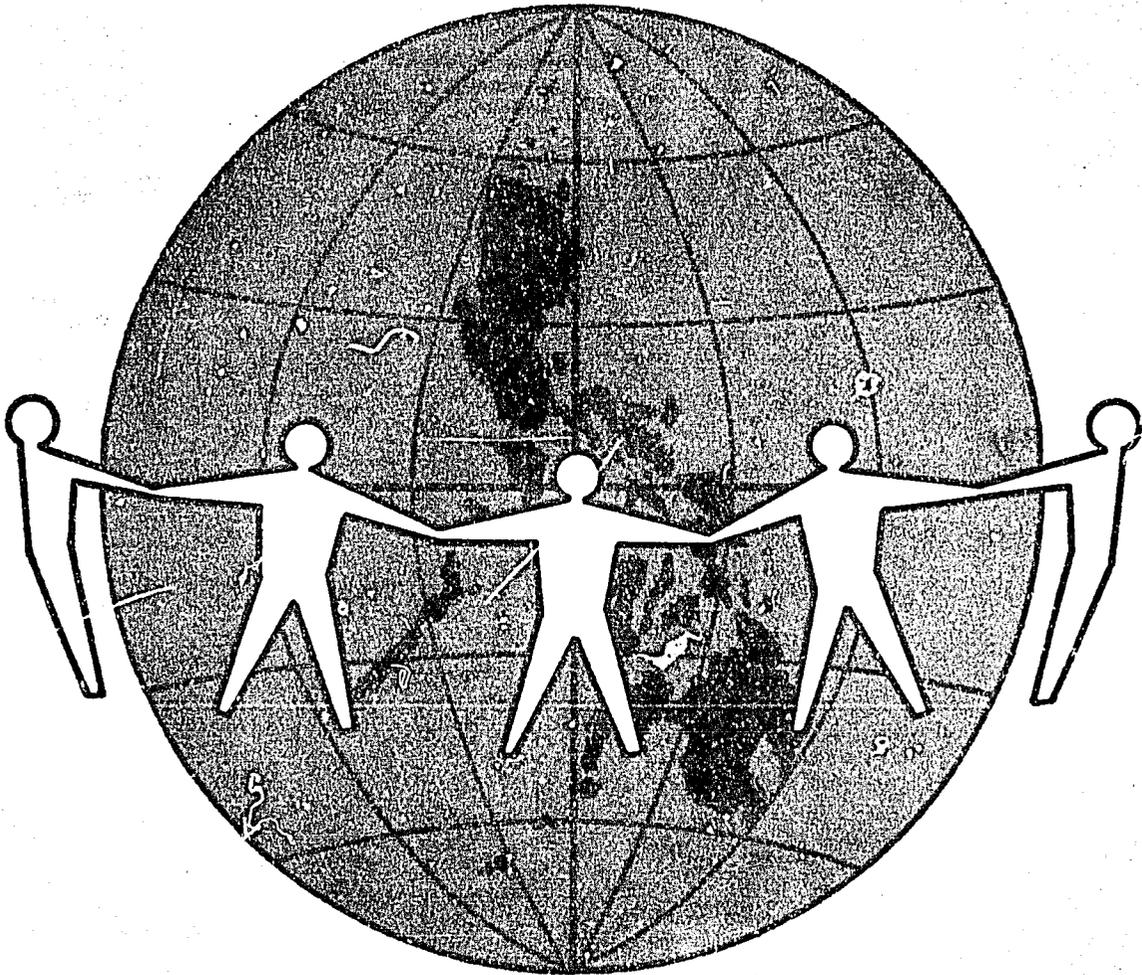


PROCEEDINGS OF THE
CONSULTATIVE MEETING ON
THE ENVIRONMENT



FEBRUARY 13 - 14, 1990

Mondragon House
Sen. Gil Puyat Avenue
Makati, Metro Manila
PHILIPPINES

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EXECUTIVE SUMMARY

BACKGROUND

In the pledging session of donor countries to the Philippine Assistance Program (PAP), also known as the Multilateral Aid Initiative, the donor countries stressed the importance of the global concern in the environmental sector in development assistance.

Thus, the GOP initiated the first Consultative Meeting on Environment in Manila, convening in February 13-14, 1990 more than 20 multilateral and bilateral donor countries and organizations, with the participation of other government agencies, private groups and non-governmental organizations (NGOs).

In this forum, the DENR presented its adoption of the Philippine Strategy for Sustainable Development (PSSD), a bold and innovative development framework which inputs environmental concerns into development plans so as to reduce pressure on the environment and thereby sustaining development.

Thirteen (13) on-going and programs and projects operationalizing the principles of PSSD were then presented to the donor countries for review.

MAJOR ISSUES RAISED

1. Prioritization of programs/projects/activities

Considering the wide array of environmental issues and challenges that the country faces, and the huge investment needed to solve these problems, this issue was consistently raised by donor countries which were concerned with the Department's overall preparedness, absorptive capacity, and the commitment of the government as a whole.

2. Overlaps/strengthening linkages and coordination

To avoid duplication of efforts, enhance interagency cooperation, monitoring and evaluation, avoid bureaucratic entanglements, win community support and enforce environmental laws, this issue was raised in several priority sectors like the ISFP, IPAS, NGO's and Urban Ecosystems.

3. Environmental input in development plans

With the promotion of the principles of sustainable development, donor countries raised this issue in several sectors which required the participation of other government agencies and the private sector. Of particular interest to donor countries was the environmental input in the planning of development activities by these agencies as this will enhance protection of the environment and enforcement of laws.

4. Community and private sector participation in environmental issues

Recognizing its limited number of staff, donor countries expressed the need to build a community constituency in order to have the will of the people behind the programs, raise consciousness of the people, enforce environmental laws and regulations, secure private sector investments, and promote community-managed forest estates.

5. Impact of population program

With the population growing unabated donor countries expressed their concern over the population pressure on the environment in the long term, and of the steps being undertaken by the Department in addressing this issue.

6. Enforcement of environmental laws and regulations

This is a major issue to donors who feel that there exist legal and organizational constraints in the enforcement of environmental laws, which must be overcome if the country is to ensure protection and conservation of its natural resources.

SUMMARY OF PROGRAM SPECIFIC ISSUES RAISED BY DONOR COUNTRIES AND GOP RESPONSES

1. Philippine Strategy for Sustainable Development

This comprehensive and holistic approach to the issue of sustaining development while protecting the environment was fully endorsed by the government as its development framework. The program aims to arrest further degradation of the environment, rehabilitate those that were destroyed, and implement mechanisms to preserve and sustain present natural resources. Donor countries, noting the broad areas that the program will cover, urged the Department to implement a system of prioritizing projects and programs that seem most pressing and attainable in the short term, given resource constraints.

2. Organizational Reforms and Absorptive Capacity

Broad and sweeping institutional reforms by the central government, and the Department's own organizational reforms were made to fully support the implementation of the PSSD, and enhance the absorptive capacity of the DENR on foreign assistance. These reforms addressed the issues of overlaps and lack of coordination among development agencies and private groups such as NGOs, environmental planning capability, and enforcement of environmental laws.

The following actions were undertaken:

- to take into account environmental concerns in development planning, DENR proposed the establishment of an environmental oversight mechanism; currently training of planning officers in various departments on environmental planning;
- to increase policy and operational level coordination, DENR participates in the rural development cluster; in joint planning exercises with the Department of Agrarian Reform (DAR) and the Department of Agriculture (DA); with the Regional Development Councils; and in the Cabinet Assistance system;
- to enhance law enforcement, budget increases were converted into salary increases to responsible officials-CENRO's and PENRO's intensified campaign against illegal loggers; and provided alternative livelihood to kaingineros;

- to support the present population program, the Department launched an education and information campaign, while encouraging NGO's to participate directly in providing clinical services to upland communities.

3. *National Forestation Program*

Launched to restore the country's forest cover and ecological balance and to democratize access to natural resources, the program shifted into high gear by complementing forced account with contract reforestation. Major issues raised in this areas include the stake of residents in reforestation areas; policies that would make permanent community-managed forest areas; and prospects of open harvesting of timber in the next 2-3 decades. DENR has taken the following steps to address these issues;

- proposed Forest Management-Lot Agreement (FMLA) ; also under discussion is the Protection and Administration Contract;
- preparations for the eventual phasing out of the Timber Lease Agreement instrument and the shift towards the new timber profit sharing agreement scheme.

4. *Integrated Social Forestry*

As the principal banner of the Department in ensuring the protection of forests and the survival of upland of forest residents, the program now enjoys expanded operations, enhanced interlinkage , finer delineation of roles with these agencies, community involvement and participation. The major issues raised in this sector are the seeming overemphasis on input requirements with little means of measuring outputs, lessons learned, feedback loops; need to prioritize projects; enforcement of environmental laws; and the strengthening of the Stewardship Contract to include renewability, heritability, bankability, and limited transferability in the future.

5. *Integrated Protected Areas*

Compelling as it is to conserve biological diversity, the donors expressed the need to feel a sense of security about investing in the development of IPAS. They were particularly interested in the planning of a design, both in terms of biological and social dimensions, and training of people, as well as enactment of appropriate legislation. Close coordination among implementors to maintain coherence and prevent duplication of efforts were also raised.

Currently, JICA through WB has provided a technical assistance grant to finance the design of the IPAS, management and planning of some 10 parks and reserves, training of DENR staff, formulation of a buffer zone concept involving local communities.

6. *IEC and Population*

As one of the few developing countries that has come this far in recognizing and identifying the way population and environment are interrelated, the impact of government population and family planning programs came under scrutiny from donor countries. It was recognized that there exists a population pressure in the uplands and the absence of basic health services. Present growth rate is still 2.4 percent per annum or about 1 million Filipinos are added to the population each year. Increasing population density has been linked to declining forest cover.

To address this population issue, DENR is undertaking the following:

- encouraging present government population programs; launching information and education campaigns on population control;
- sourcing possible NGO support in setting up population program units in the communities;

7. Non-Government Organizations (NGOs)

NGOs have been filling in the gaps where the government services are absent or unavailable due to bureaucratic entanglements. In recent years, DENR has increasingly tapped the services of these NGOs as one of its strategies in implementing its programs in the field.

There are, however, issues on both sides that need to be resolved in order to maintain this relationship in the long term. In the DENR side, there is not enough NGO people to recruit in its numerous projects. In the NGO camp, they resent being made as mere implementing arms of government agencies; centralization of the bureaucracy which does not take into consideration people's participation in the disposal of natural resource; and vested interests of the political structure in the natural resources.

DENR efforts to maintain these links include the following:

- linking NGOs to foreign NGOs or financing institutions and giving them the opportunity to work on rural concerns and thereby enhance sustainability and implementation capability; and
- involving at least one major NGO with good track record per region as principal collaborator with the DENR;

8. Sustainable Forest Management

The program intends to preserve remaining virgin forests and at the same time meet current and future demand for timber and other wood products. This entails shifting current logging operations from remaining virgin forests to logged-over areas with secondary growth; establishing permanent forest estate for timber production; harvesting, pricing, and reinvesting of revenues for forest management. Issues still confronting this shift are: lack of financing, legal means of increasing forest charges, encouraging local and regional communities to manage forest estates.

DENR to date, has done the following:

- instituted measures in support of the shift towards selective logging in logged-over areas; reduced allowable cut; banned log export; banned logging in all areas with 50 percent slope; supported the lifting of the tax on all imported logs;
- in terms of financing, DENR will be needing both technical assistance and regular program assistance for the following activities: validation of logged over areas, determination of the type of silvicultural system to be used for the logged-over areas, final demarcation, monumenting and marking of logged over areas.
- piloted the community forestry program in 12 sites. This is in consideration of the time it takes to transform communities into managers of forest;

- supported legislation to increase forest charges .

Enforcement of laws against illegal loggers was a major issue. Donors probed on measures taken in the past by the DENR, the resources needed to enforce the law; instances of prosecution and conviction; integration of enforcement policies in development plans; and legislation.

DENR action on these issues include:

- study on the causes of forest destruction, and formulation of strategies for each situation;
- choking an area harboring illegal loggers; "Balik Chain Saw" program; involving alternative livelihood projects; confiscation of contraband logs, conveyances, closing down of mills, filing cases against traders;
- prosecution of big-time loggers almost nil due to defects in the judicial system, loss of witnesses due to bureaucratic red tape;
- two versions of the Logging Ban Bill already filed at the House and Senate;
- requested under the Forest Protection Proposal increased mobility and communication equipment.

9. *Urban Ecosystems*

The urban centers now suffer from pollution in all fronts and these may well worsen in the very near future unless direct governmental intervention occurs. By year 2000, solid wastes alone would reach 5000 tons daily. Considering the large investment required to rehabilitate the urban ecosystem, there seems to be a lack of support for the urban areas particularly in environmental pollution control.

The issues raised in this sector include the prohibitive taxes and duties on equipment thereby limiting private sector initiative; the need for policy studies prior to the programming of investment activities; need for interagency and intra-agency collaboration; need for incentive structure from the urban center down to the barangay level; and appropriate technology.

DENR is implementing the following :

- river revival program; anti-smoke belching; metro greening; water and air pollution control; solid waste management; toxic and hazardous substances control and urban forestry.
- currently negotiating with the Board of Investments (BOI) the possibility of relaxing on taxes on equipment and motor vehicle spare parts and brand new engines;
- solid waste management involving use of compactor trucks from Japan, transfer stations for efficient garbage collection; closing and relocating of open dumpsites; and closing ranks with mayors and local governments to address this problem with their own budget.
- decentralizing the implementation of the Environmental Impact Assessment, whereby monitoring will be handled by the regional offices; EIA will become more integrated, involving the whole area where the specific project will be made.

10. *Marine Resources*

Overfishing, destructive fishing techniques, indiscriminate aquaculture development, siltation, and pollution have destroyed much of our marine resources. The program thus aims to initiate a systematic and coordinated effort of both government and NGOs in the sustainable development and responsible resource management of the fisheries sector. Benefits expected from the sector are balanced fishing with conservation and management; increased income of fisherfolk; development of coastal zone potentials, rationalized fees collection and licensing; and tapping unexplored resources.

An issue was raised on how to get together local government, the community, NGOs and private groups to manage resources. This may be done through simple administrative order from DA, DENR or DAR, but in some instances, legislation may be necessary.

11. *On-Going Foreign Assisted Projects (FAPS)*

Foreign assisted projects provide complementary and supportive role in bridging the gap between what can be covered by regular programs and those that need immediate attention. FAPs come in the form of technical assistance or financial assistance.

From 1976 to 1989, DENR implemented 45 FAPs, 22 of which are already completed as of December 1989, 23 still on-going and 7 to be availed by the end of the year. All are expected to be completed in 1992.

Currently 52 percent of DENR's total budget comes from loan proceeds and counterpart of FAP. The rest are government appropriations. Half of the work that DENR is doing is being supported by donor countries.

12. *Future and Alternative Financing Scheme*

Faced with huge financial deficit to manage their ecosystems and resource base, developing countries need alternative financing schemes to fill in this deficit. The major constraints to financing are the absence of the private sector, both local and international, and the little movement of funds from the developed countries to the developing nations.

Alternative financing schemes suggested for the Philippines are : expanding development assistance to include activities for sustainable natural resource management; increasing public and private sector partnership; debt for nature swap; setting an environmental trust fund; tying up tourism with environmental management.

Donor countries know of few countries in the world where the Debt for Nature swap has been most successful than in the Philippines. The need for prioritization of projects was a major issue considering the diversity and scope of challenges and the huge investment required; matching these with donor priorities; and considerations NEDA take into account in intersectoral prioritizing; and in endorsing particular sets of projects to ODA sources.

DENR priorities are :

- national forestation program; integrated social forestry, part of it is the community forestry program; integrated protected areas; urban ecosystems; IEC program; mineral resources and coastal resources management.

- WB priorities fully match those outlined by the Philippines;
- NEDA's programming constraint is that the level of public investment is tied up with the gross national product. Sectoral allocation is still to be taken up during the updating of the Public Investment Program under the Synchronized Planning, Programming and Budgeting System;
- Both NEDA and the DENR take into account the manner in which the programs impact on the national priorities as well as sectoral priorities; also taken into account are the absorptive capacity of the DENR and the extent of project preparedness.

13. *Mineral Resources / Research*

The Philippine policy for mineral resources development is to promote the optimum development of mineral resources that can give economic benefits over the long term with equal regard to environmental protection and social equity. Projects already being implemented to support these objectives are the (1) formulation of new laws on mineral resource allocation, such as the Mineral Resources Development Bill, the People's Mining Bill; (2) the mining forest program; (3) value upgrading for known mineral deposits; (4) promotion of timber substitutes from mineral resources.

An issue raised in this sector relates to the participation of the private sector in the development and exploitation of mineral resources which is ;

- subject to the constraints imposed by the constitution, whatever investments can be done by the private sector for profit would be welcome and only the gaps shall be submitted for public investment.

PROGRAM OF THE MEETING

CONSULTATIVE MEETING ON THE ENVIRONMENT

February 13-14, 1990
Mezzanine Floor, Mondragon House
Sen. Gil Puyat Ave., Makati, Metro Manila

PROGRAM

Tuesday, 13 February

- 8:00 A.M.** - Registration of Participants
- 9:00 A.M.** - Opening Ceremony
 - Welcome Address by
Chairman Roberto T. Villanueva
CCPAP
 - Keynote Address by
Secretary Fulgencio Factoran, Jr.
DENR
 - Overview of Meeting
Presentation by the Presiding Officer
Secretary Fulgencio Factoran, Jr.
- 9:30 A.M.** - Presentation: (Undersecretary Celso R. Roque, DENR)
The Philippine Strategy for Sustainable Development
- 10:00 A.M.** - Coffee Break
- 10:30 A.M.** - Open Forum
- 10:45 A.M.** - Presentation: (Undersecretary Benjamin Diokno, DBM)
Organizational Reforms
- 11:15 A.M.** - Presentation: (ADG Harry Pasimio, NEDA)
DENR's Track Record on Absorptive Capacity
- 11:30 A.M.** - Open Forum
- 12:00 N.N.** - Lunch Break
- 1:00 P.M.** - Presentation: (Dir. Ebert Bautista, DENR)
National Forestation Program
- 1:30 P.M.** - Reaction from ADB/Open Forum
- 2:00 P.M.** - Presentation: (Asst. Sec. Gregorio Magdaraog, DENR)
Integrated Social Forestry Program
- 2:15 P.M.** - Reaction from USAID/Open Forum

- 2:45 P.M.** - Presentation: (Dir. Delfin Ganapin, Jr., EMB)
Integrated Protected Areas System
- 2:55 P.M.** - Reaction from World Bank/Open Forum
- 3:30 P.M.** - Coffee Break
- 3:45 P.M.** - Presentation: (Dir. Carmen Garcia, POPCOM)
Population Program
- 4:00 P.M.** - Presentation: (Undersecretary Victor Ramos ,DENR)
IEC and Constituency Building
- 4:20 P.M.** - Reactions from Delegates/Open Forum
- 5:20 P.M.** - Summary and Review of Highlights by the
Presiding Officer
- 6:00 P.M.**- Cocktails

Wednesday, 14 February

- 8:30 A.M.** - Registration
- 9:00 A.M.** - Summary of Recommendations
- 9:30 A.M.** - Presentation: (Dir. Delfin Ganapin, Jr., EMB)
Sustainable Forest Resource Management
- 9:45 A.M.** - Reaction/Open Forum
- 10:15 A.M.** - Coffee Break
- 10:30 A.M.**- Presentation: (Assistant Director Beta Balagot-Gan, EMB)
Urban Ecosystems
- 10:45 A.M.** - Reaction from Delegates/Open Forum
- 11:15 A.M.** - Presentation: (Undersecretary ConradoGozun, DA)
Marine Resources Management
- 11:30 A.M.** - Presentation: (Undersecretary Ricardo M. Umali, DENR)
On-Going FAPS
- 11:45 A.M.** - Reaction from Delegates/Open Forum
- 12:00 N.N.**- Lunch Break
- 1:00 P.M.** - Presentation: (Dr. Carol Guina, NEDA) .
Future Investments
- 1:25 P.M.** - Presentation: (Undersecretary Ricardo Umali, DENR)

Alternative Financing Scheme

- 1:45 P.M. -** Reaction from Delegates/Open Forum
- 2:15 P.M. -** Presentation: (Mr. Maximo Kalaw, Jr., Spokesman, Green Forum)
NGOs
- 2:40 P.M.-** Presentation: (Dir. Carlos Tomboc, ERDB)
Research
- 3:00 P.M. -** Coffee Break
- 3:15 P.M. -** Presentation: (Dir. Joel Muyco, DENR)
Mineral Resources
- 3:30 P.M. -** Reactions from Delegates/Open Forum
- 4:00 P.M. -** Summary and Review of Conference Proceedings
- 4:30 P.M. -** Closing Statement of Secretary Fulgencio Factoran, Jr.

PROCEEDINGS OF THE CONSULTATIVE MEETING ON THE ENVIRONMENT

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SPEECHES

**WELCOME REMARKS OF CHAIRMAN ROBERTO T. VILLANUEVA
AT THE ENVIRONMENT CONFERENCE**

13 February 1990

Mr. Chairman, distinguished guests, ladies and gentlemen:

In my capacity as Chairman of the Coordinating Council of the Philippine Assistance Program, allow me to welcome all of you today. We are particularly grateful to those who have traveled from distant places to participate in this important conference.

We apologize that unexpected events in the Philippines forced the postponements of this meeting which was originally scheduled to be held early last December. However, the presence here of representatives of 20 bilateral donors and multilateral international organizations is an indication of the strong and continued interest shown by the donor community to help the Philippines address its environmental problems.

In the course of this two-day meeting, the Department of Environment and Natural Resources, under the able leadership of Secretary Fulgencio Factoran, will present a comprehensive development strategy dealing with the pressing environmental issues. There will likewise be presentations from representatives of other line agencies of the Philippine government, private organizations and other participants. On the basis of these presentations, I hope we can have a meaningful dialogue, resulting in an action program that can be supported by external resources to be mobilized under the Philippine Assistance Program.

During her state visit to the North American continent late last year, President Aquino visited the Smithsonian Institute in Washington D.C. and took advantage of the occasion to deliver an address that focused on the "Endangered Earth". She compared the planet earth to a blue pearl--one of an extremely rare kind-- floating in space. She referred to it as a blue pearl that is slowly but inexorably turning into a less hospitable host to animal and vegetable life as man wreaks havoc on the fragile ecosystem.

The meeting we are opening today in Manila is timely because of the need to directly address environmental concerns in this country. These are issues that affect everyone, from policy makers who plot our course, to industrialists, and to the marginalized farmers and fisherfolk who try to make decent living depending on the country's diminishing resource base. We will not simply look at the problem of conservation and pollution. We shall also reassess the way we adopt long-term strategies for sustainable development.

Up to this day, there are those in our society who treat the plaintive cries of environmental groups much like they would address issues emanating from the fanatical fringe. The stark reality, however, is that the problems of plant and animal extinction, global warming, waste disposal, and overpopulation are so serious that all of us must become activists on matters that adversely affect the environment. Even the business world has changed its attitude towards this problem. As a matter of fact, many large and small business enterprises throughout the world have found it necessary - and to their surprise - reasonably easy to work with responsible environmental groups that they had regarded with suspicion or treated as pariahs in the past. And, with the growing ecological consciousness of consumers in the market place, producers who adhere to environmental guidelines find their products much easier to market. European companies whose products proudly carry a seal given to those that pass environmental tests report positive results by way of increased sales and better profits. It is no longer tenable, therefore, to claim that a more

vigilant and heightened ecological consciousness on the part of the public will only result in the loss of jobs or impose an unjustified burden on the economy.

The Philippine experience on environmental protection, like that of many Third World countries, has not been a good one. Our once proud stands of virgin tropical forests have been cut down and drastically reduced by rapacious loggers. Mighty rivers that once flowed easily through their course, bringing sparkling clear water from highland tributaries, are now so silted and chock-full of pollutants that they can hardly sustain adequate livelihood for the areas that they cover.

The problems have grown more complicated and pressing over the years. On a global basis, we no longer are merely talking about the poisoning of water sources, denudation of forests, problems of soil erosion, the killing of entire species of plant and animal life, or the pollution of the atmosphere. In fact, the litany of offenses against the environment has grown to the point where the quality of life in the entire planet is being adversely affected.

The Philippines is presently charting a new course to develop its economy and to create more jobs by providing a more attractive climate for business and investment. It is important, however, that we do not lose sight of the need to input into our growth plans a strategy for sustainable development. We must have growth, yes! But certainly, not at any cost, and definitely not by tolerating further environmental degradation, which we can ill afford.

While many of today's environmental problems find their roots in feverish efforts to attain economic progress, it is also true that there are simply too many people, especially in the developing world, trying to eke out a living in a limited amount of land or space that does not grow. As a result, countless millions do not find ready access to resources and to livelihood opportunities, resulting in a lop-sided socio-economic development. Increasingly, impoverished and marginalized groups must somehow be brought into the mainstream of development. This in turn applies added pressure on the use of our finite natural resources.

The urgent need to address environmental issues is highlighted by the distinguished economist, John Kenneth Galbraith, in the following commentary.

"Twenty or even ten years ago, conservation was largely the preoccupation of those nations that could afford it. It was considered a luxury. Many now believe it has become a necessity. No longer does the word conservation simply evoke pictures of vast herds of game wandering across African plains. Desertification, overfishing pollution : these are now the crucial questions of conservation. The fate of the cheetah or the hartebeest may not concern many; but the state of our croplands, our forests, and our fisheries affects us all. Thus, over a very short period of time, conservation has become a political issue."

Our agenda over the next two days should allow us to focus on making this archipelago a fit place to work and live in. The way we address critical issues and the strategies that we adopt will affect the quality of life of over 60 million Filipinos in the future. In the spirit of international cooperation which underlies the Philippine Assistance Program, or the Multilateral Aid Initiative as it is known abroad, let us work out, together, a national strategy for sustainable development for the Philippines.

**KEYNOTE SPEECH OF SECRETARY FULGENCIO S. FACTORAN JR.
AT THE CONSULTATIVE MEETING ON THE ENVIRONMENT**

13 February 1990

When we conjure dreams of the Philippine future, we inevitably paint on a canvas of industrialization using the hues and colors of steel, concrete, and plastic, and the texture of chrome, glass, and printed circuits. We dream in terms of images of western-inspired synthetic utopias. However, dreams do not easily translate into reality. As we behold the Philippines after the 1986 revolution, we see a landscape littered with failed industrial projects. Realistically, it must be from the rubble of mistaken concepts that we should salvage the painful lessons which could provide the substance for constructing a new vision of the nation's future.

The industrial progress of the west spawned the environmental crisis. Air pollution episodes, gigantic oil spills, toxic wastes, acid rain, dead rivers and lakes follow in the wake of industrialization and high material consumption. Nevertheless the industrialized countries can still claim, quite convincingly, a net benefit in terms of a better quality of life and material comforts. In contrast, the Philippines and other developing countries appear to be suffering the environmental maladies of pollution and urban blight and the terrible consequences of ecological balance amidst poverty and rapidly decreasing options for the future. The ambiguous progress of the First World and the obvious tragedy of the Third World clearly point further than just an environmental crisis.

Almost surreptitiously, the age of ecology crept into the world proclaiming a new enlightenment, redefining the meaning of progress, enlarging our concerns beyond medium term development plans to the welfare of future Filipinos who will live and die in these islands. A new development gospel has come into being. It preaches that there are natural thresholds that we cannot breach, intrinsic cycles and rhythms we cannot disrupt, and endangering our own well being and survival. Inseparable from these ecological precepts is a new political economy of natural resources: equity among social classes and among generations. Today, these concepts fall under the rubric of sustainable development.

The fundamental direction of the policy and institutional reforms being adopted by the Philippine Government to achieve sustainable development is based on an analysis of the interplay of forces involved in natural resource use. Since the forest is the dominant feature of the Philippine environment, we are using it as a surrogate for the total environment for the purpose of this presentation.

In the Philippine forestry setting, the political economy of natural resources use involves three contending forces, namely: the big industrial users, the small indigenous users, and the general public. These groups compete in maximizing their benefits from the forests. The big industrial users are the loggers and corporation who, up to the present, still enjoy a substantial control of large tracts of forest lands. Numbering 82 at present, they control some 3.7 million hectares of timber land.

The second type of users, estimated at 6-8 million, are the settlers, the kaingineros or swidden cultivators, and the indigenous cultural communities, who depend largely on the forests for survival.

The general public, as the third group of forest users, is the beneficiary of the ecological service functions of the forests, such as irrigation, erosion control, recreational services, and others.

Government policies that heavily favored commercial logging since the end of the Second World War have helped industrial forest users to develop economic and political support that will ensure their control over forest resources. This situation steadily impoverished the small indigenous users and effected severe tolls on the environment. The disproportionately low fees, charges and taxes on forest exploitation provided the loggers with windfall profits which were not reinvested into the industry, but instead, were used to establish further political clout. Having access to political favors, the industrial loggers resisted reforms, particularly those that would have cut down on their profits. With weak law enforcement capacity, aggravated by a corrupt bureaucracy, large resource areas leased by government for resource extraction were overexploited.

Meanwhile, growing poverty and landlessness in the lowlands encouraged migration to what was then known as the last frontier, the uplands. Unfortunately, the lowlanders brought with them inappropriate agricultural techniques which only served to accelerate the degradation of the upland ecosystem.

Even the sustainable farming systems of the indigenous peoples have been threatened. With the diminishing resource base as provider of livelihood and food, poverty in the uplands worsened. All this meant, in the aftermath, is the deterioration of overall environmental quality.

Meanwhile, the interests of the third users of the forest, the Filipino people in general, were severely compromised with the resulting destruction of the forest. Our people have had to suffer increasing frequency of floods and drought, with disastrous effect on lives and property, higher prices of agricultural produce due to erosion of croplands, lower hydro- energy production due to silted dams, and generally, a worsening of environmental quality.

The study of the interplay of forces in natural resource use, indicates that the underlying causes of exploitation of natural resources and environmental degradation are the following:

- *inequities in granting of resource access rights;*
- *an extremely deficient resource revenue and pricing system;*
- *formulation of short-sighted resource use policies in the absence of any long-term resource planning, and;*
- *weak regulatory control by government.*

The policy and institutional reforms being undertaken by the present government seek to address these underlying causes of the environmental problem. However, it is recognized that the prevailing demographic, economic and ecological conditions in the country make the task of the solving these problems immensely more difficult. Government resilience and the unprecedented growth of environmental activism in the country are, on the other hand, positive factors that will help us as we reform the regimes used in the disposition of resources in the uplands.

The policy reforms that are being undertaken have three basic thrusts.

The first policy thrust addresses the need and interest of the small indigenous resource users as well as the general public.

The second focuses on policies that will allow private industries to utilize the country's natural resources in a more sustainable fashion, while diminishing their control over these resources.

The third thrust is on policy measures that will help rehabilitate the environment.

Policy reforms that address the needs and interests of small resource users and the public at large are directed toward empowering these sectors. These are as follows:

1. The promotion of equitable access to land and other natural resources.

This policy focuses on improving the distribution of the benefits from resource use in favor of the small farmers, indigenous and local communities. It centers around land distribution to landless farmers; granting short- and long-term access rights to qualified individuals and communities over the use of public resources; and provision of support services such as credit, marketing, and technical assistance, among others.

Some major government programs include the Comprehensive Agrarian Reform Program, the Integrated Social Forestry Program, Bantay- Dagat and the Livelihood Enhancement for Agricultural Development.

The government has recognized that the provision of secure access rights to small resource users addresses not only the equity issue, but the conservation issue as well. Government is therefore in continuous search of creative and secure resource access instruments and improving existing ones.

The most recent innovation in this direction is the long-term small holder timber concessions to be granted to local communities under the new Community Forestry Program of the DENR. Under this program, communities will manage and protect a timber area and be allowed to do small-scale, labor-intensive logging and engage in other livelihood projects, the benefits of which will directly accrue to them.

2. The recognition of rights of the indigenous cultural communities over their ancestral domains.

The 1986 Constitution mandates the State to recognize and protect the ancestral domain rights of the indigenous cultural communities and the creation of two autonomous regions, comprising the two largest cultural communities in the country, Muslim Mindanao in the south, and the Cordillera in the north. While Congress has passed the laws creating the autonomous regions which provides for recognition of ancestral land rights, the framework under which these rights will be operationalized through a law. In this respect, Congress has yet to pass a law implementing the constitutional mandates on recognition and protection of ancestral land rights.

Meanwhile, government departments and agencies involved in the provisions of services to these communities are pursuing interim policies and activities that address their needs and aspirations. Of significance are:

the granting of preferential rights to indigenous cultural communities over resources found within lands claimed as ancestral;

the granting of long-term community stewardship contracts under the Integrated Social Forestry Program to interested communities, with the provision that they do not waive ownership rights to their ancestral lands;

- *the provision of livelihood opportunities, legal assistance, and basic services such as education, health, water supply, etc., to these communities; and,*
- *the deputation of members of the ICCs as forest protection officers, to protect their ancestral land rights from further encroachment.*

3. *The census of forest occupants*

The inventory of forest occupants, to be completed this year, would empirically establish the population inside forest lands. In addition, it will provide socio-economic data on this relatively large population segment that will be extremely useful in assessing and improving existing forest occupancy management policies and programs. This activity is being undertaken by the DENR in coordination with the National Statistical Office of the National Economic Development Authority (NEDA).

4. *The increased involvement of local communities, local government units, and non-governmental organizations (NGOs) in environment and natural resources planning development and management.*

The government is gradually expanding the decision-making process to include the participation of all concerned sectors in resource planning, development and management to ensure that the needs and interest of the local population are met by satisfying the aims of sustainable development. Public acceptability is a pre-condition for every new program/projects launched. NGOs have been tasked to undertake, monitor and evaluate certain programs of government departments to more effectively solicit NGO assistance. The local citizenry and local government units have also been given certain responsibilities in environmental protection, such as their deputation as forest protection agents, and as reforestation contractors.

5. *The promotion of environmental consciousness among the public.*

This policy aims to heighten public awareness and understanding of environmental issues and problems in order to enhance the public's contribution to the environmental movement. Activities include the integration in school curricula of environmental concerns, mass media exposures, and the conduct of information, education and communication campaigns and public fora.

6. *The intensification of rural development*

Recognizing that fully two-thirds of the population live in rural areas where poverty is most acute, the government is implementing a strategy that will facilitate the growth of the rural sector. It also aims to develop a policy environment conducive to increased private investments in agri-based rural enterprises. The strategy involves removing the remaining economic policy and public investment biases that worked against agriculture, providing incentives to activate rural financing and credit, improving government support and social services, enhancing the rural infrastructure, implementing sustainable livelihood programs, and hastening land reform.

Intensification of rural development is also intended to reduce the push factor of rural-urban migration.

Government policies that will promote sustainable utilization of natural resources by the private sector include the following:

- 1. the institution of proper resource pricing and revenue system;*
- 2. strengthening law enforcement capability of government;*
- 3. the continued imposition of the log and lumber export bans and adoption of duty-free log importation;*
- 4. the adoption of a realistic annual allowable cut in logging; and,*
- 5. the promotion of efficiency of natural resources-based industries.*

In the near future, our policy reforms to promote sustainable utilization of natural resources will be as follows:

- 1. conversion of all resource lease/license agreements to production sharing agreements.*
- 2. development of incentives for greater private sector involvement in the national forestation program.*
- 3. delineation and marking of permanent boundaries of forest estates.*
- 4. close monitoring and evaluation of forest development activities and growth.*

Finally, we have a set of eight major policies that address the need to restore the environment. These are:

- 1. the rehabilitation of open and denuded uplands through the extensive implementation of the NFP;*
- 2. the protection of remaining natural forests through a log ban or logging moratorium;*
- 3. the rehabilitation of degraded and heavily polluted rivers;*
- 4. the conservation and protection of coastal resources;*
- 5. the improvement of air and water quality in urban areas;*
- 6. the improvement and strengthening of the Environmental Impact Assessment System;*
- 7. the adoption and full implementation of the Integrated Protected Areas System; and,*
- 8. the undertaking of environmental planning.*

And now, allow us to move on to the all-important institutional reforms which the government has committed to in pursuit of the goals of sustainable development. These are:

1. *The environment as the centerpiece of the Department's efforts.*

Before the 1987 reorganization, environmental management was the concern of non-DENR agencies. After the reorganization, the environment became one of the main concerns of the new DENR. The DENR quickly adopted the principle of sustainable development as its guide, and has since used an ecosystems approach to environment and resource management.

2. *Decentralized and streamlined bureaucracy.*

The DENR was regionalized in order to make the delivery of vital services closer to those who need it most, meaning, the millions of Filipinos who live in the upland and rural areas. To back this, 86.47 percent of the total DENR budget was allotted for regional operations. Further, many regulatory and administrative functions have been transferred to lower level offices.

3. *Inter-departmental cooperation in environmental protection and management.*

Various mechanisms have been used to ensure that environmental concerns will be addressed in an integrated fashion. The Cabinet Clusters, the Presidential Executive Coordinating System, and the Cabinet Assistance System provide essential venues for harmonizing plans and programs of the different departments and offices with the establishment and adoption of a cross-sectoral conservation policy.

The DENR has also entered into Memoranda of Agreement with various departments, including the Departments of Agriculture and Agrarian Reform, on joint and integrated development work for the alleviation of poverty and the achievement of sustainable development.

4. *Greater public participation in decision-making process.*

The reorientation of executive departments as agencies of development has made public consultation a major feature of government. This includes representation by the private sector and the people at large in regional and local development councils, in other government councils such as the Presidential Agrarian Reform Council.

The establishment of an NGO desk in almost all departments amplifies the great importance given by government NGOs as partners in development.

5. *Local autonomy.*

Local autonomy has been made operative in certain areas of the country. Devolution of executive department powers has therefore become an important issue. Already, the devolution of natural resources development has been provided for in the organic acts for the Cordillera and Muslim Mindanao.

While the foregoing institutional reform initiatives have resulted in significant gains, there is a need for institutional reform that will include the enhancement of managerial capability. Another very important institutional reform measure that needs to be undertaken is the establishment of an environmental oversight mechanism. This should include the creation of an executive body that will ensure that all government programs and projects, internally or externally funded, shall have components that address the environment. This is tantamount to integrating the environmental factor in the overall program of government.

In the next two days of this first Philippine initiated Consultative Meeting on the Environment, we shall share with you how we are managing to pick up these precious pieces. We have come up with a conceptual framework: the Philippine Strategy for Sustainable Development. This is what is going to guide us in achieving our twin goals of economic development and environmental stability. This strategy supports the belief that the exploitation of natural resources, the direction of investments, the orientation of technological development, and institutional change are all in harmony and enhance current and future potentials to meet human needs and aspirations.

To en flesh these goals, we have an agenda for policy and programs. These are a set of programs directly addressing our socio-economic and environmental problems. These will include our foreign assisted projects, as well as our flagship programs such as the Comprehensive Agrarian Reform Program, the National Forestation Program, and the Integrated Social Forestry Program. To highlight the network of our environmental concerns, presentations will also be made on the sustainable management of tropical rainforests, the integrated areas protected system, marine, coastal and urban ecosystems, and the current mineral resources development program. we shall also discuss the other side of the ecology equation, population.

The Department also recognizes the need for institutional reforms in order for our goals to filter through the veins of the bureaucracy, to reveal the direction along this line. We shall discuss the DENR's track record on absorptive capacity; organizational reforms and institutional strengthening and alternative financing schemes such as our little adventure with the debt-for-nature swap. We shall also tell you about our efforts in establishing linkages with non-governmental organizations in building a constituency for the environment.

Finally, we shall be presenting the total package for the environment and natural resources sector. This is perhaps where the echo for responsibility as far as this group is concerned, resounds with more urgency and importance.

After this consultative meeting, we shall have hopefully articulated to the international donor community not a litany of rhetoric about the state of the Philippine environment, but our modest accomplishments, and the need for continued support to bring rhetoric closer to the pressing reality, that we need to attain a sustainable mode of national development.

**CLOSING REMARKS OF SECRETARY FULGENCIO S. FACTORAN JR AT THE
FIRST CONSULTATIVE MEETING ON THE ENVIRONMENT**

14 FEBRUARY 1990

In a few minutes, we will be bringing to a close the First Consultative Meeting on the Environment. This ending, however, is marked with both joy and satisfaction. For the donor countries and organizations have given us the approbation and the encouragement that we very much want to hear. As Undersecretary Roque said at the close of yesterday's proceedings, we in the Department feel assured that the last three years of burning the midnight oil has not gone to waste.

This meeting is important to me because it gives us feedback as to how you, our partners in special projects, react to the many changes and policy reforms we are establishing. The positive response we heard emboldens us to forge ahead, challenge and confront our adversaries in the arena of environmental protection--whether such adversaries be persons, institutions, vested interests, power blocks, or even systematic difficulties. The last two years demonstrated that the DENR could cope very well with rapid growth. ODA funding flows into the DENR have quadrupled since 1986, without overloading our administrative systems. With improved systems and further training project management, expanded ODA could be accommodated.

We have very little time left--the virgin forests will be gone in 7 to 12 years; fishing grounds are being harvested unsustainably; and in urban areas, conditions are already critical. These are the justifications for the requests for much larger assistance.

We have told you of the myriad goals, implementing programs, and detailed projects falling under the guiding framework of the Philippine Strategy for Sustainable Development. We have heard, on the other hand, your concern for the proper prioritization of our most pressing concerns. To this, we would like to assure you that we have indeed selected the areas of concern that, by their nature, must lie at the top of our list, such as reforestation, the equitable distribution of natural resources, and the incorporation of environmental concerns in the core of government administration and planning. We would rather have a few select, and yet successful programs and projects, than have several marginal or even unsuccessful ones, especially when much of our funding comes by way of loans and grants.

We have also told you of the self-preparation that we have had to undertake to fulfill our mandate, through far-reaching organizational reforms. And you have raised your concern for the need to eliminate gaps and overlaps with other government agencies like the Department of Agriculture and the Department of Agrarian Reform. In this regard, please be assured that concrete measures have already been taken with other government agencies as well as NGOs to coordinate programs and services for our clientele, keeping in mind the fact that our limited budget and external funding sources do not allow for waste and inefficiency due to overlapping and/or functional and performance gaps.

Our reorganization, reorientation, and organizational streamlining have allowed us to significantly increase our capacity for implementing programs and projects of greater magnitude, and for absorbing external funding made available by foreign donors, by as much as half.

A primary example of this increased capacity is the accelerated implementation of the National Forestation Program. Your own acknowledgment of our satisfactory performance in this area validates our self-assessment.

However, the NFP remains an infant program. Our initial successes only show the possibilities that the NFP has come to offer. We will continue to need support for the program through the coming years. That we have begun talks for a second forestry loan gives us much hope. I must admit, however, that we need much more than hope to meet our mandate.

We have also told you of the Integrated Social Forestry Program, our two-pronged program for the environmental rehabilitation of the uplands, and the socio-economic well-being of the uplander. Already, we have made the ISF the flagship program of the DENR for 1990, which speaks volumes on its importance, and its primacy among the strategies that will help sow the seeds of sustainable development in our upland and rural areas.

The ISF program's growth is deeply rooted in our ability to implement the program, and to learn from field experience. We in the Department therefore share your concern for performance mensuration at the level of program output, and the establishment of an effective feedback loop for learning.

Even in the past, however, we have already learned much from prototype social forestry projects--lessons which we have incorporated in the renewal of the ISF program. For this, we have the United States Agency for International Development to thank for its support of the Rainfed Resources Development Project and the Central Visayas Regional Project; that the USAID is willing to extend further assistance based on this experience is a most welcome development.

The ISF program, in its own limited way, attempts to restore the long-suspended communion between man and forest. And yet, the mystical body of nature is not just the sum of man and trees, but in fact embraces the whole totality of creation. In recognition of this primal truism, the Department has been involved in developing the design for the Integrated Protected Areas System.

I must admit that the IPAS concept is new to us. We have neither the legislative support nor a well-developed design at this point. And yet, we are encouraged by the interest that some of you have taken interest in helping us continue our work with IPAs. In this regard, I would like to thank the Japanese Government and the World Bank for your support in the preparation of the feasibility study and design of the IPAs.

We anticipate that with the completion of this system, we shall be able to get the needed support from our own legislators, and from other donor agencies, who may want to join in as co-financiers.

Among the main concerns of the IPAs are the maintainance of biodiversity, and the development of our ability to protect our environment from degrading activities. By their very nature, these activities require a major investment in research. We must admit that the Philippines remains deficient in the amount of funds that it spends for research, as a percentage of its gross national product. Your continued support for research activities in various programs and projects, however, has aided us greatly in rectifying this situation.

You have also shown great interest in our activities geared toward rehabilitating our urban ecosystems. Those of you who have been stationed in Manila for some time probably have a good perception of the magnitude of work that has been cut out for us. The sad state of our rivers, and the poor quality of air have been especially bothersome. These are the reasons why we have implemented the Rivers Revival Program, and the Anti-smoke Belching Program, both of which are being carried out on a multisectoral basis.

In this regard, allow me to thank the Asian Development Bank for its support of the Metropolitan Manila Environmental Study. Your assistance in this has critically advanced our action in a much neglected area.

And of course, we cannot forget this afternoon's very interesting presentation from the non-governmental organizations, which was delivered by our closet firebrand, Mr. Junie Kalaw. I am not sure if he was with us as one of the presentors, or on the other side of the table as one of the organizations anxious to review our performance. And yet, that is the very nature of NGOs that makes them a complementing factor in the development equation. They bridge the gap where we cannot reach far enough, and act as a persistent voice where we have not been able to listen. I hope that our donors see the relationship of the NGOs with the DENR as one of partners, and not of adversaries.

The two days of the First Consultative Meeting on the Environment have come to a close. No, we did not accomplish much in terms of making agreements or in coming to conclusions. And yet, there were a lot of good feelings and sentiments expressed, which leads the DENR to believe that we have finally homed in on the mandate that our people have given us. Yes, the road that leads to sustainable development is long and rocky; but it is a genuine relief to know that we have found it.

Before we end, I would like to leave one more sentiment, which we only touched briefly when I commented on the Japanese delegation's concern for the funding amounts involved.

Since after the war, Japan has played an ever increasing role in this part of the world, gradually supplanting the United States as the largest provider of development assistance to the Philippines. The forestry sector loans only serve to underscore this observation.

Japan, too, is the largest market for Philippine wood products, and probably one of the largest, if not the largest importer of wood from tropical countries.

In this light, Japan figures very significantly in any initiative taken for the environment, by the Philippines, or any other country in the region.

The Japanese people have not been spared in extending technical and funding assistance. This is one of the major reasons why our national initiative for the environment has made great strides during the last few years. I must admit that this is also one of the reasons that has given us the courage to look far into the future with projects and programs that will ground the principle of sustainable development among our people.

Thus, I hope that when the Japanese mission in Manila takes a third or even fourth hard look at the figures that show our requirements for ODA, I hope that this reflects prudence of action, and not a wavering of interest.

For we believe that Japan now has a great role, and an even greater role to play toward the restoration of the Philippine environment. Where it has been blamed by many for the despoliation of the Asian environment, we still believe that Japan can be credited for saving it.

Again, we would like to thank all of the donor countries and agencies who have sat and stayed with us for the last two days. I hope that this atmosphere of dialogue will allow us to work more closely, and with greater understanding, in the future.

Until next year, thank you, and good day.

PRESENTATIONS

ORGANIZATIONAL REFORMS AND INSTITUTIONAL STRENGTHENING

Introduction

Some of the most crucial aspects of the Philippine Strategy for Sustainable Development (PSSD) have already been operationalized by the promotion of the National Forestation Program (NFP), Integrated Social Forestry Program (ISFP), and others. However, these programs need long-term commitments. It is therefore necessary to create, reform and strengthen institutions to ensure their continuity.

To meet these challenges, the Government has now put in place mechanisms in order to be responsive to new developments. To mention, organizational reforms have been undertaken from the national down to the local levels.

Structural Reforms

At the national level, the President has organized the Cabinet into Action Teams to:

- address policy issues;
- draw up developmental planning priorities;
- determine resource allocation;
- ensure implementation efficiency; and
- monitor and evaluate the effectiveness of Government programs and projects.

These Cabinet and Sub-Cabinet structures are:

1. **The Cabinet Cluster System** whereby the Cabinet members are grouped into clusters based on their functional responsibilities to enhance inter-agency coordination in review of operational policies that require expeditious attention for implementation.
2. **The Cabinet Assistance System (CAS)** which is the technical forum and recommendatory body of the Cabinet, the Cabinet clusters and the President. The CAS is further grouped into Committees as counterparts to the Cabinet Clusters.
3. **The Presidential Coordinating System (PCS)** created under A.O. 319 to address issues which cut across departments and involved inter-departmental concerns.
4. **Cabinet Officer for Regional Development (CORD)** whereby a Cabinet member is designated to link and coordinate with Regional Development Councils (RDCs) to ensure that the national priorities are consistent with the regional priorities and that national programs are in support of the diverse location.

At the regional level, the Regional Development Councils (RDCs) have been reorganized to broad participation of all sectors. RDCs now include representatives from the civil/private sector, non-governmental organizations (NGOs), the Church and different regional private organizations.

Further linkage has been established with the provincial and community levels through the organization of Local Development Councils (LDCs) in provinces, cities and municipalities to ensure bottom to top planning.

Behavioral and Functional Reforms

The national government is aware that structural reforms are not adequate to meet new challenges. Behavioral and functional changes are necessary to complement structural improvements in its central bureaucracy. Some of these changes that were undertaken are as follows:

1. *Energizing and improving the morale of the bureaucracy through:*
 - a. General wage increases in 1987 and 1988;
 - b. Implementation of an early retirement program with attractive retirement benefits in 1989;
 - c. Standardization of compensation which raised salary levels in the bureaucracy in 1989; and
 - d. Establishment of an internal control system with departments and agencies through the issuance of A.O. 119 in January 5, 1990.
2. *Enhancing public accountability and responsiveness by:*
 - a. Adopting a new code of ethics for government employees;
 - b. Activating the Office of the Ombudsman as guardian of ethics, integrity and honesty among government employees to be consistent with the policy of government transparency;
 - c. Appointing men of probity, courage and unassailable conduct and competence; and
 - d. Cutting red tape by improving systems and procedures.
3. *Decentralizing functions and authority such as:*
 - a. Institutionalizing synchronized planning, programming, and budgeting system;
 - b. Developing NGOs to enhance greater collaboration between the government and the private sector in developmental activities;
 - c. Emphasizing the role of Regional Development Councils (RDCs) by consulting with RDCs on matters of regional budget allocation and by delegating to same the responsibility of monitoring project implementation;
 - d. Establishing consultative assemblies to get recommendations for regional development and setting of priorities;
 - e. Enhancing the authorities of regional and field officials as in approval of public works and reforestation contracts; and
 - f. Delegating some of the functions of national agencies to local government units. Further to this, the Department of Local Government, in collaboration with the NEDA Secretariat are formulating a capability-building program for the LGUs.

4. *Enhancing project implementation through:*

- a. A.O. 110, institution of a Public Assistance and Complaints Unit (PACU) in each department/agency which shall:
 - receive and act on complaints/requests for assistance from the public filed with it;
 - refer to the operating unit/agency the complaints/requests for appropriate action; and,
 - inform the callers/writers on the status of their complaints/ requests;
- b. Institutionalization of the Regional Project Monitoring and Evaluation System (RPMES);
- c. Involvement of NGOs in:
 - identification, implementation and monitoring development projects; and,
 - assisting community organizations in building capability to manage and implement development projects;
- d. Institutionalization of people's participation in the planning, implementation and evaluation of development projects;
- e. Strengthening local autonomy through:
 - popular election of local leaders;
 - training of local government units;
 - quarterly meetings of RDCs;
 - designation of Cabinet Secretaries as Cabinet Officials for Regional Development (CORD);
 - rationalizing internal revenue allotment to Local Government Units (LGUs);
 - increasing the national assistance funds for infrastructure;
 - endorsement of a new local government code; and
 - autonomy for some parts of Mindanao and the Cordillera.

5. *Improving capability to manage development assistance*

- a. In recognition of meager resources and to optimize development assistance from external donor institutions, the government has restructured the Official Development Assistance (ODA) Management System which addresses the following issues:
 - How the interests of the diverse domestic political constituents could be reconciled in the formulation of ODA policies in a democratic setting and consistent with enunciated national development goals;

- How the Philippines can effectively mobilize International Official Development Assistance to support the government goals and aspirations; and
 - How the government policy-making and administrative machinery would be subjected to closer oversight and coordination in order to extensively improve the country's capacity to absorb foreign assistance.
- b. Official Development Assistance (ODA) Management System has delineated the functional responsibilities of different action centers within the system such as:
- The Coordinating Council for the Philippine Assistance Program (CCPAP) which performs: policy deliberation on ODA ; forum for feedback ; policy advise to NEDA board ; perform pro-active role in priority areas ; refers policy\operational gaps to CODA; deals with external assistance community in coordination with Department of Foreign Affairs (DFA) .
 - The Committee on Official Development Assistance (CODA) which takes care of: internal coordination with the executive branch ; synchronization of activities of central policy bodies and implementing agencies ; tracking of agency performance control of problem projects.
 - National Economic Authority (NEDA) which undertakes: ODA programming matching projects with funds ; project evaluation ; project specific interfacing with creditors/donors in coordination with implementing agencies.
 - and other relevant agencies.

The Department of Environment and Natural Resources (DENR)

From the broad institutional reforms of the government in support of the PSSD, the Department of Environment and Natural Resources (DENR), as the lead agency in the management of the environment and natural resources concerns, has initiated major organizational reforms and institutional strengthening.

Through Executive Order No. 192 issued in June of 1987, the DENR underwent reorganization. Its mandate is to ensure the availability and sustainability of the country's natural resources; promote equitable access to natural resources and preserve the country's natural and cultural heritages.

The DENR is headed by a Secretary and assisted by 5 Undersecretaries, 8 Assistant Secretaries, 2 Staff Directors and 6 Bureau Directors. In the field operations, there are 14 regional offices each headed by a Regional Executive Director Assisted by 4 or 5 Technical Directors for Forestry, Lands, Mines, Environment and Research. There are 73 Provincial Environmental and Natural Resource Offices and 177 Community Environmental and Natural Resources.

The organizational structure of the Department has been designed along functional rather than sectoral line that it was in the past. The shift was made in recognition of the overlapping nature of situations and the urgency to improve a coordinated delivery of services in the field.

The regular manpower complement totaling to 24,000 are now fully deployed, 85% of whom are assigned at the field operations. This is further supported by about 16,000 contractual employees working in various projects.

About 90 percent of the appropriations are likewise allotted to the field operations.

1. With a streamlined organization, the DENR adopted strategies to carry out its mandate with the following major elements:
 - a. Expanding its horizontal capability following the government's major policies on institutional reforms.
 - b. Optimizing existing inter-agency mechanisms. The DENR recognizes the absolute necessity of working intensively with other government agencies. As such, it is actively participating in all inter-agency working groups from the national level like in the CAS, Cabinet Clusters, CORD, ODA, Legislative Liaison down to the local levels such as in the RDC and Local Development Councils, and Local Government Units.

Within the framework of the government's institutional reform, DENR has initiated the following:

- Multi-partite agreement among government agencies, NGOs and the academe. Among the notable set-ups for this arrangement are the upland working group and the Malabon-Tenejeros-Tullahan River Revival Program which is popularly known as "Ilog Ko, Irog Ko" Project.

Local government unit participating through:

- The creation of environment and natural resource council. Through a memorandum of agreement with selected provincial governments (Laguna in Luzon, Negros Occidental in Visayas and Davao in Mindanao), a council has been created at the provincial level with the provincial governor as chairman. The council acts as a consultative body in connection with the issuance of licenses and regulation of use, exploitation and development of natural resources of the province.
- Implementation of reforestation projects by contracts with local government units.

Private sector participation by:

- Establishing an NGO Desk at DENR has institutionalized the active participation of private sector in policy, planning, implementation and monitoring of programs/projects of DENR.
- Contracting the implementation and monitoring of specific component of the National Forestation Programs to qualified corporations, NGO's, communities, tribes and/or families.

And other mechanism to be established in the near future such as:

- Environmental oversight mechanism for projects under the Philippine Assistance Program;

- Tripartite environmental committee (NGO-Government-LGU) at central and local levels to oversee the implementation of Environmental Impact Assessment (EIA);
- Replication of the environment and natural resources council to cover all provinces of the country;
- Establishing appropriate organizational mechanism through the Cabinet Assistance System (CAS) to formulate and implement the PSSD; and
- A mechanism to transfer to the NGOs, farmers' associations the maintenance and protection of reforested areas.

2. Organizational Strengthening

The reorganization of DENR was marked by a change of its mandate: from a regulatory agency into a developmental institution, e.g. forest guards are transformed into extension/community development agents into the uplands. To meet its commitments, the following have been done:

- a. Creation of special working groups and/or committees to provide guidance and assistance to the units implementing major programs of DENR, e.g., NFP, IPAS, etc. Examples of these special groups are:
 - The National Forestation Program Coordination Office headed by a senior officer of DENR; and
 - The National Secretariat for the Integrated Social Forestry program headed by an Assistant Secretary.
- b. Continuous selection and deselection process in the deployment of competent officers and staff to critical/sensitive positions;
- c. Reorientation and training are being conducted to enhance the capability of officers and staff of the agency. Among the notable training programs are: the training of about 1,500 social forestry technicians in upland development and community organization, rapid appraisal techniques and project management, and training of about 1,500 upland farmers.
- d. Decentralization of decision making and fiscal management

Substantial authorities have been delegated to the regional, provincial and community officers. These include:

- Approval of industrial tree plantation agreements for areas more than 30 ha. agro-forest agreements covering less than 50 ha. Original and renewal of rattan cutting permits up to 100,000 linear meters, original resaw of mini-sawmill permits, contracts or module survey, foreshore lease up to 50 ha issuance of mineral prospective and exploration permits, quarry permits and small mining etc.
- increased authority limits in approving reforestation contracts from P200,000 to P2,000,000 for the RED. The PENRO, to P1 million and CENRO, to P100,000.

- Further decentralized the accounting system to the provincial level. Allotments and funding warrants are now being sent directly to the provincial offices for disbursements.

e. Other future programs to further enhance organizational build-up.

The projected inflow of approved programs, in consonance with the PSSD, implementation would require more rigorous efforts in institutional strengthening, specifically the upgrading of human resource capabilities and provision of support facilities.

Human resource development program would include both formal and non-formal training of about 3,500 man-years over five years. The field of expertise that will be required will be on:

- Forest Management
- Land Management
- Mine and Geosciences
- Environmental Management
- Integrated Protected Areas and Wildlife
- Support Services
- Agroforestry Management
- Community Management/Extension
- Project Planning and Development
- Data-Based Management Information System

Support facilities requirements include the following:

- Provision of adequate number of vehicles and other transportation facilities to all PENROs and CENROs. To enhance the ability of field personnel to respond with timely and effective action. It is estimated that at least one additional vehicle per PENRO and 2 vehicles per CENRO are required.
- Establishment of effective communications network from the CENRO to central headquarters. This communications network has to be supported by a computer data-based information system at least at the PENRO level.
- Establishment of a Geographic Information System (GIS) in coordination with other major users such as the National Economic Development Authority and the Department of Agriculture.

3. Key indicators of DENR's progress after five years of institutional reforms

It is projected that if the momentum of the current efforts and support would continue, the following institutional arrangements could be attained:

- Institutionalization of inter-agency coordination in implementing PSSD to the degree that mechanisms for collaboration and exchange shall have reached down to the level of operations. Of critical importance in these relationships will be the complementation of priorities of DENR economic development agency (NEDA, DTI), finance agencies (DBM, COA) and the donor community.

- b. Private sector participation and cooperation shall have achieved full partnership with government institutions in managing the environmental and natural resources of the country. Institutional mechanisms to carry out these relationships will range from formal contracts for resource development to collaborative councils for planning, management, monitoring and evaluation of Natural Resources.
- c. Existence of viable and well organized Rural Upland Communities and/or farmer associations actively supporting the maintenance and management of Natural Resources Projects. The degree of complementarity between DENR and its beneficiaries will play a critical role in achieving this situation.
- d. Maintenance of well trained DENR staff that are responsive to the Department 's mandate. Competence and efficiency will be demonstrated in both the technical and management fields as well as in staff-beneficiary relation and other behavioral aspects.
- e. The use of a reliable Natural Resources data-base that is accessible to internal and external users and a management information system that is effective, up-to-date and supportive of the socio-economic and environmental concerns of the Department.
- f. Improved competencies of field level offices of the Department as measured in the timely attainment of physical and non-physical targets.

***ABSORPTIVE CAPACITY OF THE
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES***

Public Investment in the Environment and Natural Resources Sector

Investments of the National Government for the Environment and Natural Resources (ENR) Sector from 1986 to 1989 amount to P2.9 billion, representing 1.9 percent of the total Public Investment Program for the period. Of this amount, 81.4 percent or P2.4 billion has been allocated for ENR projects and activities of the Department of Environment and Natural Resources (DENR), with the remaining 18.6 percent for ENR activities of other agencies.

The increasing importance of the sector to the entire Public Investment Program is evidenced by the dramatic increase in investments for the DENR activities in the coming years. From the P2.4 billion level for 1986-1989, public investments for DENR increased to P 8.7 billion, or an increase of P6.4 billion.

Funding for the various ENR projects and activities of the DENR under the Public Investment Program are sourced from Official Development Assistance (ODA) from foreign funding institutions and countries and from National Government funds. From 1986 to 1989, ODA accounted for 31.8 percent of the total Public Investment Program for DENR. The larger portion of 68.2 percent was financed by GOP funds.

Official Development Assistance for the ENR Activities of DENR

ODA to the ENR projects handled by the DENR from the period 1976 to 1989 totalled \$345.4 million. Tracing the inflow of ODA to the DENR by year of effectivity, it can be observed that the bulk of ODA came during the years 1986-1989, with \$277.2 million for 26 ODA loans and grants.

By source of funds, some 49 percent of the total ODA came from ADB loans and grants, amounting to \$168.7 million. OECF/Japan closely follows, accounting for \$131.0 million or 38 percent of the total. The remaining \$45.6 million is distributed among AIDAB, Germany, IBRD, UN agencies and other bilateral sources.

A major portion (84 percent) came from ODA loans amounting to \$288.8 million, while the remaining amount came from 35 grants with a total amount of \$56.5 million. Of the total \$288.8 million for the 13 ODA loans of DENR, net commitment was \$279.3 million due to the cancellation of some \$10.2 million and an additional availment of \$0.7 million. Major reasons for cancellation are changes in project design arising from cost effective measures by project management and depreciation of the peso.

For the 35 ODA grants to DENR, net commitment was \$56.1 million with the cancellation of \$ 0.4 million due to the reduction in scope of programmed project activities during implementation.

With these changes, net commitment for both ODA loans and grants amount to \$335.5 million.

Of the 48 loans and grants funding various ENR projects from 1976 to 1989, twenty two have already been completed. Twenty six ENR are still on-going, with an aggregate amount of \$312.2 million.

Availment Rate

One major indicator of the performance of foreign-assisted projects in government today is the availment rate defined as the ratio between actual cumulative availment and scheduled cumulative availment.

For the 31 on-going loans and grants, the DENR posted an overall availment rate of 92.9 percent. ODA loan availment was high at 94.1 percent, while ODA grant availment was recorded at 91.34 percent. Tracing the ODA performance over the years, it can be observed that there was a marked improvement from 1987 to 1988, particularly for ODA loans.

The loans handled by DENR are of two types: program loans and project loans. There are 3 on-going program loans, and 4 project loans. Of the project loans, 1 is implemented solely by the DENR, while 3 are components of bigger loan packages implemented in coordination with other agencies.

The marked improvements in the availment rate is largely due to the almost 100 percent availment rate for the DENR's forestry program and project loans.

DENR Grants

A marked improvement can likewise be seen in the availment rate for grant projects during the years 1986 to 1988: from a low 46 percent to 72 percent. In 1989, the availment rate is 91 percent.

Evaluation of Problems Encountered in Project Implementation

The implementation of projects funded by ODA loans and grants was beset by several problems. Some of the more general problems are the following:

- a. Cumbersome and Time-Consuming Procedures in the:
 - procurement of goods and services,
 - budgetary authorization and release, and
 - financial reporting and auditing
- b. Peace and Order Situation
- c. Unfavorable Weather Condition

Experience also show some project-specific problem-areas, particularly faulty project design

This problem has been one of the major reasons for the low utilization rate of at least one of loan projects during the year 1987 and 1988 , such as :

- a. Inadequately trained project staff
- b. Lack of institutionalized systems and procedures to address particularly the Forestry Sector Program Loan

GOP Responses

To address these problems and improve absorptive capacity, the National Government has instituted organizational, procedural, and policy reforms, such as:

- a. Rationalization of the structure and process of ODA Management
- b. Establishment of a common fund system by the Department of Budget and Management
- c. Automatic release of grant proceeds to line agencies
- d. Lifting of pre-audit requirement of the Commission on Audit
- e. Establishment of a Project Development Institute at the Development Academy of the Philippines to train line agency staff in project preparation
- f. Recent adoption of a synchronized system of planning, programming, and budgeting.

DENR Responses

During the past three and a half years, specific measures have been taken by DENR in resolving the above issues. Foremost among these is the strengthening of DENR's oversight functions of monitoring, coordinating, and facilitating attainment of project objectives. This has resulted in the detection of errors in project design which subsequently led to cancellation of portions of pertinent loans. A major mechanism in this regard is the institutionalization of regular one-on-one meetings with project implementors. These meetings provide the venue for discussions and resolution of common and outstanding problems/issues. Furthermore, DENR in its desire to optimize technical and financial assistance from its foreign-assisted projects, has devised a means by which project consultants are pooled or called upon to provide expert advice and share relevant experiences on special matters of immediate concern.

Thru DENR's own initiative, formal and informal networking with key government oversight agencies (e.g. NEDA, DBM, DOF, COA, CODA and CCPAP), NGOs, and with donor/lending institutions have been established. The creation of an NGO desk and the first DENR- Donors' meeting held prior to the Tokyo Pledging Session are specific examples of this initiative. These conscious efforts at developing close working relationship with external agencies at higher management and technical levels have facilitated project operations substantially.

The state of flux introduced by government re-organization during 1987 and 1988 and the consequent personnel movements affected some foreign-assisted projects. The promotion of a number of project managers to key positions in the regions and the recalling of detailed staffs to their mother units, resulted in the depletion of experienced project personnel. This situation has stabilized in 1989 although the need to continuously train project management staff and create a pool of professional project managers remain as urgent tasks.

The continuing flow of larger investments into the DENR sector is expected to impose a heavy strain on DENR's current manpower resources, facilities and existing systems and procedures. With appropriate external assistance and coupled by the commitment of the top leadership to efficient management of government resources, the obstacles which currently confront DENR's absorptive capacity will be surmounted. The following measures, therefore, will be actively pursued to ensure the improvement of absorptive capacity:

- a. Further training of agency personnel in project preparation and management**
- b.. Institutionalization of coordinative linkages among key government oversight agencies and lending/donor institutions through regular meetings and consultations**
- c. Further streamlining of procedures and systems**

The Department's incipient success at implementing a loan assistance with the magnitude and complexity of the Forestry Sector Program is a positive indication of future developments.

A PROFILE OF THE NATIONAL FORESTATION PROGRAM

Introduction

In the period 1950-1978, the forest loss rate in the Philippines was approximately 204,000 ha a year. For the period 1978-1988, the deforestation rate decreased to an average of about 119,000 ha per annum. However this still exceeds the rate of forest re-establishment through reforestation and resource renewal via improved management of residual forests. Moreover, the cumulative impact of forest depletion over the years was exacerbated by rapidly increasing demand, propelled principally by population growth.

Major Issues and Problems

Although some 15 million ha are officially classified as forest lands, only 6.46 million ha actually have forest cover. Of these forests, a mere 4.4 million ha are dipterocarps of which .9 million ha are virgin forests and 3.4 million ha are residual forests. Pine covers .239 million hectares. The remaining 9 M has. are classified as grasslands and brushlands. Of these, 6.5 million has. are severely denuded. At present, most of the remaining virgin dipterocarps are located at relatively high altitude in steep terrain where productivity per hectare ranges from low to marginal. Given this situation and demographic factors, the supply-demand scenario is not encouraging. Moreover, logging in the steep uplands where virgin forests can still be found has serious negative impacts on downstream agriculture and ecological stability.

As a rational and technically feasible response to the aforementioned supply-demand factors, the government envisages the sourcing of future timber needs from plantations and from the 3.3 million ha of residual forests where productivity can be sustained through timber stand improvement and enrichment planting.

But residual forest conservation cannot be achieved without curtailing the conversion of residual stands to swidden farms. In this context, it must be recognized that an estimated 1.3 million families (about 8.0 million people) derive livelihood from forest lands, including continued slash-and-burn conversion of forests into hilly land farms. Thus, to conserve the residual forests, it is imperative to develop new sources of livelihood for some 8 million people or roughly 14 percent of the total population. It is equally important to restructure the timber industry in a manner that provides adequate financial incentives for swidden farmers to conserve residual forests.

In the past, the financial interests of upland communities have been disregarded in the formulation of policies that governed forest management and forest products utilization. This inequity is now being addressed through new DENR initiatives which fulfill the constitutional mandates of social equity and democratization of access to natural resources. However, it will not be easy to overcome the problems spawned by riding roughshod over the interests of upland populations for many decades.

Unfortunately, some misguided policies which denied access by the rural poor to products from the natural forests, were re-echoed in the major programs that dealt with establishment and beneficial use of man-made forests. The structure and incentives set in place to promote development of forest plantations were directed primarily towards encouraging investment by the (socio- economic) middle, upper-middle and upper classes. Whether through oversight or by design, previous administrations did not mobilize the enormous potential to pursue economic and social development by "opening the door" to production of forest commodities

by the millions of upland settlers who were already in place and in dire need of new livelihood opportunities.

In general, previous policies relevant to natural forest management and the production of commodities from man-made forests, virtually ignored the presence of some 8 million occupants residing in forest lands. Driven by the need to survive and for lack of better opportunities, this desperately poor sector of society was left with no other option but to convert forests into swidden farms. Moreover, a bureaucratic pre-disposition towards regulation rather than socio-economic development resulted in the design and promulgation of policies, rules and regulations which made it difficult and unattractive to invest in sustainable production of forest lands.

Rationale of the NFP

The National Forestation Program (NFP) was launched in June 1986 to restore the country's forest cover and ecological balance. The Program is a consolidation of forestry sector development activities already underway and scheduled for implementation up to calendar year 2000. The major investment components are reforestation, agroforestry, watershed rehabilitation, timber stand improvement, management of natural forests, industrial tree plantation development, and institutional strengthening. Program initiatives also include the updating of DENR's policy framework and the installation of new policies that are responsive to, and consistent with, overall development, social equity and environmental management goals in the Philippines.

The investment agenda and policy reform initiatives address crucial, outstanding issues in the forestry sector. Foremost among these issues is the depletion of forest resources brought about by the combined forces of degradation due to logging, and outright deforestation as a result of slash-and-burn conversion to swidden farms ("Kaingin").

Objectives

The National Forestation Program is designed to operationalize new DENR policies which identify investment in socio-economic development as the key to conservation and expansion of forest resources. The NFP intends to remove the constraints that have previously discouraged participation in forest development by all sectors of society. It is DENR's intention to break down the barriers that have reserved forestry as the exclusive territory of a select few in the private sector, and a tightly-closed bureaucracy in the government sector.

Toward this end, the NFP aims to provide a framework within which all Filipinos, regardless of socio-economic status, can play an active role in forestry. Concurrently, the NFP seeks to facilitate the participation of all government agencies and private institutions in forest development, conservation, and management. For all sectors and individuals, it is the objective of the NFP to catalyze socio-economic development through forestry, recognizing that to achieve this goal it is imperative to create conditions which do not inhibit investment or curtail beneficial use, provided the latter adheres to the principles of sustainable development.

Program Strategy, Description and Status

The fundamental strategy of the NFP is to promote the implementation of forestry projects by all sectors. While functioning as lead agency of the Program, the DENR perceives upland settler families, non-government organizations (NGOs) civic and religious organizations, entrepreneurs, other government agencies (OGAs) and local government units (LGUs) as the

principal actors in achieving program targets. The DENR, however, chart the principal directions for Program implementation, based on environmental and socio-economic parameters. Program resources, both financial and technical, are allocated accordingly. Collaboration is enlisted through memoranda of agreements, contracts, provision of technical assistance and payment for tangible outputs (e.g. no. of hectares reforested). The national government, through the NFP, will provide the initial investment to fund an expanded reforestation program. Future beneficial use, protection and conservation will rest with the implementors who achieve their planting targets. The government will share in these benefit through collection of users' fees that recover initial investments and provide funding for program expansion. Furthermore, given the financial benefits they will derive, it is envisaged that implementors will re-invest part of their income in additional reforestation. Removal of constraints to forestry investment (mentioned earlier) will create conditions that will help bring this about.

Initially, the NFP is concentrating on rehabilitation of denuded, unproductive lands in the public domain through integrated implementation of reforestation and agroforestry. These two components have been prioritized and integrated for the following reasons:

1. The heavy population pressure along with prevailing patterns of land use and occupancy, make it impractical to segregate reforestation and agroforestry into separate categories;
2. They both provide excellent opportunities to create gainful employment at relatively low investment cost; and
3. Most deforestation results from conversion of forests to swidden farms ("Kaingin") by an estimated 8 to 10 million landless rural poor who are unable to find other employment. Reforestation and agroforestry provide viable alternatives to swidden farming.

Henceforth in this presentation we will refer generically to "reforestation" with the understanding that this also includes agroforestry and that (in the Philippine context) both are the principal features of watershed rehabilitation. From 1986 to 2000, the NFP target is to reforest 1.4 million ha out of an estimated 6.5 million ha which were previously forested but have been converted to unproductive grasslands and low productivity farms. This work is already underway. Meanwhile, the NFP has initiated a Community Forestry Program which incorporates the management and beneficial use of residual forests by upland settlers. This NFP component builds on earlier experience (in an IBRD-assisted project) that effectively curtailed the rampant conversion of forests to swidden farms by granting to communities the privilege to harvest and sell forest products. Because of the direct financial benefits they derive, upland settlers have a positive vested interest in forest conservation and protection. The NFP components of timber stand improvement and natural forest management will also be carried out in the Community Forestry initiative.

Average annual reforestation targets for the NFP have been set at 100,000 ha which includes both public and private sector investment. During the first two years of implementation (1986 - 1987), actual accomplishments were only 73,000 ha (i.e. 40,000 ha and 33,000 ha by the public and private sectors respectively). This was far short of the programmed 200,000 ha target. The shortfall was due principally to inadequate funding and reliance on force account implementation to achieve public sector targets.

Policies were revised in 1987 to reduce force account activities and encourage private sector implementation of reforestation projects under contract with government. USAID grants supported the initial phase of this shift to contracts, and provided approximately US\$6.0 million for reforestation of ten (10) sites with an aggregate area of about 4,000 ha. Promptly

thereafter, the Asian Development Bank (ADB) provided assistance on a significantly expanded scale. Negotiations that were started and completed in record time (about six months) resulted in a US\$120 million Forestry Sector Program Loan which will support implementation up to 1992 of the following targets:

- a. 160,000 ha of reforestation by the DENR primarily through private sector contractors
- b. 65,000 ha by DENR administration
- c. 115,000 ha of reforestation by OGAs and LGUs
- d. 80,000 ha of timber stand improvement (TSI) on residual forests
- e. 180,000 ha of agroforestry through DENR's Integrated Social Forestry Program (ISF)
- f. 50,000 ha of watershed rehabilitation

650,000 ha - Total

In addition, the government and ADB agreed on the need to install policy reforms and upgrade regulatory capability in order that an additional 83,000 ha would be reforested by timber concessionaires.

A first tranche of ADB release of US\$60M helped overcome funding constraints. The shift to implementation by contract accelerated the rate of accomplishment. Financial support has been further augmented by a US\$120 million loan from the Overseas Economic Cooperation Fund of Japan (OECF), the first tranche of which became available in the third quarter of 1989.

Initial NFP reforestation accomplishments were rather modest at 24,000 ha in 1986, 29,000 ha in 1987 and 27,205 ha in 1988. Strict enforcement pushed up private sector-funded reforestation from 8,500 ha in 1986 and 11,000 ha in 1987 to 37,000 ha in 1988. This was accomplished principally by Timber License Agreement (TLA) holders who were required to deposit P10,000.00 per hectare covered by the (TLA), to be refunded upon reforestation of areas logged over at a ratio of 1 is to 1 (i. e. 1 hectare reforested for every hectare logged).

In late 1988, a first phase ADB review of the NFP identified prevailing constraints in administration, logistics and quality control that required immediate attention. Intensive training and improved supervision have helped overcome constraints identified in the ADB review. At the beginning of the third calendar quarter of 1989, reforestation accomplishments under the NFP were already 78,000 ha or about 120% of total accomplishments in 1988. By yearend, an additional 46,000 ha had been planted thus increasing the total to 124,000 ha reforested in 1989. To date, over 10,197 contracts have been awarded covering 76,750 hectares. Contractors are meeting their deadlines.

The increased pace of reforestation over the past two years would not have been possible without major revisions in the reforestation approaches that had been applied prior to launching of the NFP. Foremost among these revisions has been the privatization of project implementation. By shifting from force account to a contractual mode, DENR has demonstrated the feasibility of transferring implementation of a major government function to the private sector. To bring this about, it was necessary first to decentralize and second to formulate new procedures and operating mechanisms that would enable DENR field officers to effectively mobilize private sector implementation capability.

Another contributing factor to increased accomplishments under NFP has been the active participation and cooperation of other government agencies. In particular, the various oversight agencies have issued landmark rulings and policy decisions which liberalized rules and regulations, thus reducing bureaucratic difficulties. For example, the Commission on Audit promulgated new guidelines which granted authority to enter into negotiated contracts for family and community reforestation projects of up to 100 hectares, while the Office of the President approved the granting of mobilization funds to contractors. The decentralization of funds flow and disbursements through the provincial accounting system was made possible by the Department of Budget and Management. Recently, the Department of Labor and Employment issued a ruling on the applicability of agricultural minimum wage rates for reforestation projects. There are current negotiations with the Department of Trade and Industry, and Bureau of Internal Revenue seeking tax incentives for industrial tree plantations, and exemption of reforestation contractors from the provisions of the value-added tax (VAT).

The NFP was further strengthened by the voluntary and enthusiastic participation of non-government organizations (NGOs). Beginning in 1988, the Catholic Bishops Conference of the Philippines (CBCP), committed to assist in policy review, and the conduct of seminars on ecology and natural resources. This participation has been sustained up to the present time. The Philippine Business for Social Progress (PBSP) was involved in the creation of DENR's NGO Desk which is now the forum for a healthy dialogue between NGOs and DENR on policy issues. The Paper Industries Corporation of the Philippines (PICOP) designed the NFP's monitoring and evaluation system which is now being introduced into DENR's system. It will be used also by the NGOs which are being tapped by DENR to assist in project monitoring. The response from political leaders has been very positive. The League of Provincial Governors, by way of a Memorandum of Agreement with DENR, has agreed to organize Provincial Reforestation Units nationwide, which will integrate reforestation activities within each province. The Philippine Congress has facilitated prompt approval of NFP budgets with minimal reductions.

Organizational Arrangements

The National Forestation Program is a multi-agency initiative with the Department of Environment and Natural Resources (DENR) as lead agency. Responsibilities of each agency are defined in a Memorandum of Agreement signed by the Secretaries of the participating departments and the Chief Executives of participating government corporations. Program policies, targets and other operational issues are resolved by a sub-cabinet level committee chaired by a DENR Undersecretary with officers of equal rank from the other agencies as members. Participating agencies are: Department of Environment and Natural Resources (DENR), Department of Education, Culture and Sports (DECS), Department of Agrarian Reform (DAR), Department of Agriculture (DA), Department of National Defense (DND), Philippine National Oil Company (PNOC), National Irrigation Administration (NIA), National Electrification Administration (NEA), National Power Corporation (NPC), Department of Public Works and Highways (DPWH), National Economic Development Authority (NEDA), Philippine Coconut Authority (PCA), Department of Budget and Management (DBM), Department of Finance (DOF), Philippine Council for Agricultural Resources Research and Development (PCARRD).

Within the DENR, the NFP operates principally through its regional, provincial and community offices which are directly responsible for carrying out the program in the field. To support the field units, DENR has established a National Program Coordination Office (NPCO). Among others, this office monitors and reports on overall performance; consolidates and verifies performance data submitted by the field units; establishes technical standards and

ceilings for each NFP component; conducts training, serves as liaison with donors and consolidates regional budgets into national budgets for submission to Congress.

The NPCO is supported by a DENR Steering Committee (SC) which establishes department policies for NFP implementation. The SC also has responsibility for satisfying the policy reform conditionalities of the ADB/OECF Forestry Sector Program Loan.

Because of decentralization, and for the first time in the history of the Department or its predecessors, DENR field offices now have the authority to draw up terms of reference, design reforestation development plans, award and administer contracts and disburse payments . . . without going through the time - consuming process of Central Office approval. To ensure compliance with standards and avoid confusion, the DENR has, among others, (i) formulated and installed official guidelines for contracting, (ii) published technical standards, (iii) established cost ceilings for the various activities that go into a reforestation project, and (iv) set up a comprehensive monitoring and evaluation system. Substantial investments in training have strengthened the capability to administer contracts. DENR's regional offices, provincial offices and community offices, or field units can now move forward pursuant to a common framework and uniform standards. Over time, DENR anticipates that each of these 262 offices will have the capability to effectively award new contracts covering an average of about 500 ha. each year and to oversee the implementation of on-going contracts covering a cumulative total of 1,500 ha over three (3) years. In the future, areas developed under contracts will (after the first three years,) be transferred to the implementors for long-term management, protection and beneficial use. Thus, as 500 ha of new contracts are awarded each year, 500 ha. of three-year old areas already developed will be turned over to the implementors. The average hectareage subject to oversight would therefore be constant at about 1,500 ha. Given the number of DENR field units (262) and average responsibilities of 500 hectares (new contracts) and 1,500 ha (on-going oversight), DENR is confident that 130,000 ha of new reforestation and 390,000 ha under supervision are realistic targets.

However, it was deemed prudent to start slowly. From 1988 to June 1989, a modest total of 4,402 contracts were awarded. By December 1989 this had increased to 10,069 contracts covering 73,923 ha or an average size of slightly over 5.0 ha.

Fifty one percent (51%) of the comprehensive reforestation contracts now in place have been awarded by DENR's community offices to individual families, with a maximum area of 5.0 ha per contract. About 9 percent are comprehensive community contracts ranging up to 100 ha in size. These have been awarded by DENR's regional and provincial offices to community and civic associations, non-government organizations (NGOs) and local government units (LGUs). One percent of the contracts ranging up to 1,000 ha in size have been awarded to corporations. The remaining 39 percent are activity-specific contracts awarded to families. Over time, DENR anticipates an increase in the percentage of contracts to communities and corporations.

Meanwhile, the results of an ADB-OECF review mission conducted in September and October of 1989 indicate a high rate of success for individual family contracts and satisfactory performance in the community contract category, but marginal performance by corporate contractors. The findings of the review mission come as no surprise considering that upland families are already in place and know how to plant. On the other hand, reforestation is a new enterprise for NGOs, LGUs, recently organized community groups, and companies. However, start-up and mobilization problems are being overcome, and DENR anticipates a rapid increase in accomplishments by the community and corporate contractors.

In 1988, NFP reforestation created approximately 64,000 new jobs for people who, for the most part, were formerly slash-and-burn (swidden) farmers. Among others, this has avoided deforestation that would have occurred if these farmers had not been busy planting and tending trees. Preliminary employment statistics for 1989 indicate that some 184,000 new jobs have been created thus far during the year.

With the new systems and approaches now in place, plus experience gained over the last two years, conditions are favorable for further expansion of the National Forestation Program. Moreover, given the large number of impoverished upland settlers in need of employment and the recent ADB-OECF assessment of smallholder capability, NFP expansion is both socially desirable and operationally feasible.

Funding Requirements

At this point, it is timely to compare NFP targets with available financial resources. Hereunder is a summary of current NFP targets that are programmed for financing by ADB-OECF loans and Philippine government appropriations up to the end of 1992.

<u>Activity</u>	<u>Target(Ha)</u>	<u>Ave.Cost/ha</u> US\$	<u>Financial</u> <u>Requirement</u> (in US \$ M)
1.Reforestation by contract /force account	160,000 65,000	728	208.7
2.Reforestation by OGAs/LGUs	115,000	928	106.7
3. Agroforestry	120,000	454	81.8
4. Watershed Rehabilitation	50,000	928	46.4
5. Timber Stand Improvement	80,000	159	12.7
6. Program Management & Institutional Strengthening			43.0
TOTAL	<u>650,000</u>		<u>US\$ 499.3 M</u>

The cost of procuring additional equipment such as photo mapping aircraft, forest fire fighting implements, road building and radio communications equipment have not yet been quantified.

Finances available or programmed to achieve the foregoing targets are as follows:

<u>Source</u>	<u>Amount(Million US \$)</u>
1. ADB and OECF loans	240.0 (77.9%)
2. Philippine Government Appropriations (P300 M Annually for 5 yrs)	68.2 (22.1%)
Total	<u>US\$308.2M (100%)</u>

From the foregoing data, it is clear that the Philippine government faces a shortfall of US\$191.1 million to achieve near-term NFP targets. (US\$ 499.3 M less US\$ 308.2 M = US\$191.1 M)

If not immediately addressed, the negative effects of this shortfall will be felt in early 1991 and will slow down the momentum attained thus far by the Program. This would be most unfortunate and should be avoided.

Increased forest charges on timber harvests, is expected to generate part of the aforementioned shortfall. Additionally, a new administrative order due for promulgation will grant beneficial use of areas successfully reforested by contractors. User fees will be collected and will provide additional funds for reinvestment in new reforestation projects. However, neither of these measures will significantly improve fund availability for the next 4 to 5 years. The Philippine government will still need additional assistance and requests that donors give this matter preferential consideration.

Benefits and Risks

Looking beyond the targets and financial resources summarized above, it is also important to emphasize three points:

1. preliminary employment generation studies indicate that 184,000 ha of reforestation from 1988 to December 1989 created some 184,000 new jobs or about one (1) new job for each hectare that was reforested. Assuming the same ratio of employment is generated to land that is rehabilitated (1.0 job:1 hectare), financial support adequate to attain the overall NFP target of 1.4 million ha by year 2000 would create approximately 1.4 million new jobs;
2. reforestation will transform lands that are currently unproductive or marginally productive into new sources of food, timber and energy; and,
3. lands rehabilitated through reforestation that may not be harvested (because of steep terrain and other factors) will nonetheless represent a substantial contribution to improving the physical environment increasing the financial mobility of lowland agriculture, and reducing the ominous threat of global warming.

Undoubtedly, all of the above are major objectives in the development agenda of the participants to the consultative meeting.

The NFP is drawn up consistently with the fundamental economic development strategies of the Aquino Administration namely:

- poverty alleviation
- employment generation
- equity and social justice
- decentralization and democratized access to resources
- sustainable development

Given the scale of NFP investments and the reforms set in place, it is estimated that by the turn of the century the Program will have achieved the capability to expand on the basis of a return on its initial investments.

The principal risks faced by the NFP are : (a) uncertainty of funding adequate to sustain momentum until such time that a self-funding capability is assured; (b) the threat that

population pressure will move toward the hinterlands rather than towards the cities, and (c) unforeseen disasters such as drastic climatic change or pest and disease infestation. But these risks are inherent to what the NFP has set out to accomplish.

Points for Discussion

In the context of this consultative meeting, the GOP will naturally wish to focus on the issue of development assistance.

First, there is a matter of a US\$ 191.1 Million funding gap to achieve the 1992 target through public sector investment. The NFP already provides a mechanism for donors who are exploring the possibility of programmatic assistance. DENR is of the opinion that the policy issues relevant to a programmatic approach in the forestry sector are well laid out in the ADB/OECF Forestry Sector Program Loan and in USAID's Rainfed Resources Development Project Grant Agreement. Nonetheless, the door is always open to further policy dialogue.

For donors who would prefer to consider projectized rather than programmatic assistance, the DENR has prepared a list of projects that call for site specific investments under the NFP umbrella. This list is attached to the document entitled "Philippine Strategy for Sustainable Development". Specific projects on this list include one or more of the NFP components previously identified. DENR is ready to sit down and seriously discuss these specific proposals. Second, there is the issue of a 1.4 million ha target up to the year 2000. Over and above the 650,000 ha already targetted up to 1992, additional program and project support are needed to implement the balance of 750,000 ha ($1,400,000 - 650,000 = 750,000$ ha) until year 2000. This requires a fund support amounting to US\$637.5 million. Costs will vary by component (e.g. timber stand improvement costs less per hectare than reforestation). Additionally, targets by component are not uniform since reforestation has higher targets than other components. However, the average per hectare cost is around US\$850.

Finally, we anticipate that donors would wish to discuss DENR's experience in mobilizing upland settler families, NGOs, corporations, communities LGUs, national government agencies and others to implement reforestation projects.

Based on current experience, DENR is confident that the new approaches now in place make it feasible to mobilize sufficient family, community and corporate capability to accomplish the NFP targets. The DENR is equally confident that it can continue to demonstrate its capability to work through the private sector in order to achieve NFP objectives. However, systems and approaches can always be improved. DENR would be more than ready to discuss any assistance in these areas that has a direct bearing on NFP goals.

*INTEGRATED SOCIAL FORESTRY PROGRAM
AGENDA FOR THE 1990s*

Executive Summary

The Integrated Social Forestry Program is a deliberate effort of the government to enhance the socio-economic conditions of the kaingineros (shifting cultivators) and other upland dwellers who are dependent on the forest resources for their survival.

This segment of the Philippine society constitutes a large portion of the country's population. A latest study conducted by the University of the Philippines at Los Banos, shows that more than 14.0 million Filipinos are living in the uplands. About 8.0 million of them are residing inside classified forest lands. They are considered the poorest among the rural poor.

Their quest for survival did not spare the forests which they clear in order to plant agricultural crops on the fertile land. For this, forest occupants were tagged as the culprits who destroyed the bulk of the country's forests.

In spite of the imposition of punitive measures against illegal forest occupants, the extent of forest destruction perpetrated by the kaingineros has multiplied through the years.

A change in the approach to the problem has therefore become imperative. The application of anti-kaingin laws have to be humanized, in order to effectively improve the socio-economic standing of the forest occupants, and at the same time, protect the integrity of the upland environment.

To effectively address these issues, the Integrated Social Forestry Program (ISFP) was launched by the government.

ISFP is a national program to mobilize forest resources for economic and social progress by involving kaingineros and other forest occupants as agents of the State in food production and rehabilitation of forest lands.

The objectives of the Program are the following:

1. To strengthen partnership between the State and forest occupants in promoting sustainable use of public lands through a managerial system that is environmentally sound and culturally appropriate;
2. To ensure conservation, development and protection of forest resources;
3. To provide better income earning opportunities for program participants and upland dwellers as a whole;
4. To stabilize upland farming systems by introducing appropriate technologies and harnessing the capabilities and potentials of forest occupants;
5. To identify and disseminate information concerning applicable technologies that are economically feasible, socially acceptable, and environmentally sound;

6. To develop sustainable and income-generating activities by providing necessary social, financial, technical, educational, and other community services to forest occupants;
7. To establish effective linkages to institutionalize synergy among forest occupants and communities and other institutions and agencies which have the capacity to provide the necessary social, economic and physical infrastructure support; and,
8. To improve the quality of life of the kainginero and other settler populations.

Program Status

From 748 project sites covering 320,000 ha in 1983, the sites increased to 1,088 covering 450,000 ha in 1989. The number of participants also increased from 86,000 in 1983, to 152,000 in 1988.

Individual Stewardship Certificates issued also increased from 12,400 covering 32,000 in 1983, to 106,000 ha in 1989 covering 303,000 ha. Ten Community Forest Stewardship Certificates (CFSC) have already been issued involving 6,400 families and covering an aggregate area of 26,000 ha, in six (6) provinces.

By 1989, there were 3,821 social forestry officers throughout the country, implementing the program.

Financial Support

From less than a million pesos in 1983, the budget for the Program rose to P28 million in 1985. This substantially increased to P45 million in 1986. But while the budgetary support increased, it was only sufficient to pay the personnel and operating costs of the program. It was only last year (1989), beginning with the UNDP/FAO Grant, the ADB-OECF Forestry Sector Loan, and the CARP- ISF allocation that funds for community development were made available.

Agenda for the 1990s

ISFP aims to attain a critical mass of 800,000 households over a period of 10 years, representing 30 percent of the estimated total population within forest lands.

In order to achieve this objective, the ISF Program will be implemented in accordance with the following broad strategies:

1. Further rationalization of the land tenure of forest occupants pursuant to the stewardship principle;
2. Further intensification of the socio-economic development of program participants through the provision of ecologically and economically sound agroforestry technologies, natural resource- based community livelihood projects and related support services, basic infrastructures and other economic opportunities;
3. Assurance of effective group formation, development, and greater participation of the rural communities in the planning, management and evaluation of community programs, especially those which are related to local resources conservation and development; and,
4. Improvement in internal institutional capability and external linkages with both government and non-government organizations.

Specific Strategies

Specific program strategies include the following:

1. Active community involvement and participation shall be institutionalized at all levels of program planning and implementation;
2. Area development shall focus on the total project site based on the bio-physical condition obtaining in the area, as against the previous activity-oriented project planning and implementation.
3. Selection of new project sites based on the following criteria:
 - a. The residents are receptive, local officials are cooperative, and the prevailing peace and order conditions indicate higher chances of success;
 - b. The site is not less than 150 ha with at least 75 family-occupants;
 - c. The site is accessible and visible to the general public.

Existing or old project sites, which meet the above criteria shall continue to receive support from the Program for the next three (3) years. At that time, the project shall have attained the level of sustainability and self-reliance.

4. Social Forestry Officers (SFOs) and Social Forestry Technicians (SFTs) shall be trained in community organizing, agro-forestry, process documentation, monitoring and evaluation, livelihood project development, forest resource management and conservation, and project management.

The SFTs shall establish their residence right in the project sites assigned to them.

5. Income earning opportunities for program participants shall be provided through labor intensive infrastructures, such as, trails, soil and water conservation structures, small water impounding structures, nursery sheds, land improvement, and other sources of indirect incomes.
6. A Local Revolving Fund scheme shall be developed for the program participants, from where funds will be drawn from the acquisition of farm tools, work animals, seed capital for other micro-enterprises, and other projects that may be identified by the farms themselves.
7. The integrated effort of the different branches of the government shall be harnessed to facilitate project site and community development.
8. Participation of NGOs shall be solicited at all levels of Program implementation.
9. Political endorsement shall be sustained through the various hierarchy of the government.
10. Institutional reforms shall be introduced to improve the capacity of the various ISFP implementing units in providing the needed technical and administrative support to the program.

11. The processing and issuance of Certificates of Stewardship Contracts shall be facilitated to further improve the credibility of the program.
12. ISF Model Training Sites shall be established in strategic areas in the provinces as show windows for viable and functioning models of upland development technologies.
13. The funds for the various program activities, irrespective of their sources and depending on the activities to be undertaken, shall be pooled and released to the Regional Office, PENRO or CENRO to ensure effective financial administration, and project planning and implementation.

The DENR is mandated to implement the ISF Program. The Department also coordinates and establishes linkages with other agencies of the government which are likewise required to provide support to the Program.

Role of Other Departments and Agencies :

1. *Department of Agrarian Reform*

The DAR shall assist in identifying suitable kaingin areas for development as ISF project sites, the qualified program beneficiaries, in project development and in organizing settlements.

2. *Department of Agriculture*

The DA shall provide appropriate agro-forestry technologies for specific upland areas, assists in the training of program participants, and provide material assistance, such as seeds, seedlings and livestock.

3. *Department of Education, Culture and Sports*

The DECS shall conduct non-formal education classes for the families of program participants emphasizing agroforestry techniques, forest conservation, sewing, food production/processing and similar trades and crafts.

4. *Department of Health*

The DOH shall provide health facilities and train the program participants on the areas of health, nutrition, population control, and sanitation.

5. *Department of Justice*

The DOJ shall provide legal assistance to kaingineros and other forest occupants, in addition to legal assistance provided by other government agencies.

6. *Department of Local Government*

The DLG shall assist in the dissemination of information and facilitate the acceptance of the ISF Program by kaingineros and other forest occupants.

7. *Department of Public Works and Highways*

The DPWH shall provide and establish the infrastructures needed by the communities in the ISF project sites.

8. *Department of Social Welfare and Development*

The DSWD shall provide and administer social welfare programs/activities needed by the communities in the ISF Project sites.

9. *Philippine Information Agency*

The PIA shall assist in the dissemination of information and facilitate acceptance of the ISF Program by upland communities.

10. *National Economic Development Authority*

The NEDA shall assist in providing funds for the ISF Program, both from local and foreign sources. The NEDA shall also monitor and record the progress of the ISF Program.

Benefits and Justification

Effective implementation of the ISF Program will facilitate rural progress and regional growth. The Program stresses active community involvement and initiatives, which would hasten the attainment of self-reliance.

The ISFP is one of the more visible Government programs that aims to provide the way for occupants of forest lands towards socio- economic progress. The Program also addresses the issues adversely affecting the upland environment, such as continued depletion of the forest resources, soil erosion, water shortage, and the necessity for restoring lost forest cover.

Alleviation of the upland population from the chronic poverty that has affected their lives through the years is the underlying goal of the Program. Similarly, ISFP focuses on the environmental concerns and issues affecting the upland, with the view of contributing to the restoration of sound ecological balance.

The lessons already learned through the implementation of the ISF Program are valuable inputs which can now serve as guide in the implementation of a more expanded program.

However, effective implementation of the program would largely depend on the continued support, both by the program participants and other government agencies (OGAs) and non-government organizations (NGOs).

With the uplands later on economically productive, and environmental degradation thereafter substantially reduced to manageable level, we can expect the early fulfillment of our mission and the realization of our vision that the country's uplands may then be the source of progress for the nation.

INTEGRATED PROTECTED AREAS SYSTEM (IPAS)

Situational Analysis

In 1932, Act No. 3915 was promulgated providing for the establishment of national parks in the Philippines. At that time the park concept was directed towards outdoor recreation and game refuge. Subsequent implementing orders for Act 3915 only set the rules and regulations governing the establishment, protection, supervision and uses of national parks. There were no clear cut guidelines in selecting areas for establishment of national parks. Hence, most of the existing 61 national parks were established based on certain features and historical value with less emphasis on biological significance. In addition, game refuge and bird sanctuaries, wilderness areas, biosphere reserves and similar reservations were later established in various parts of the country. These areas vary in size from a small 2.0 ha to as large as 75,455 ha.

The past two decades were an era where national parks were subjected to exploitative uses as well as the transfer of some areas under the administrative jurisdiction of other agencies such as the Department of Tourism, National Power Corporation, Philippine National Oil Company etc. These events were brought about by the ill-defined ground boundaries, absence of master plans, very inadequate logistical support, negative attitude of the people towards reservations, poor support by politicians, and inadequate information and data base.

When Executive Order 192 was issued, the Protected Areas and Wildlife Bureau under the DENR was created mandating among others the establishment of an Integrated Protected Areas system for the Philippines (IPAS). Under the umbrella of the present IPAS are National Parks, Game Refuge and Bird Sanctuaries, biosphere reserves and wilderness areas.

Protected areas which represent about 4.3 percent of the total land area of the country contains a great diversity of biota ranging from marine, mangrove, mid-montane, pine forests and mossy forest. The forest and marine ecosystems contain about 8,000 plant species and some 950 of terrestrial vertebrate, 514 species of avi-fauna, 250 species and sub-species of reptiles, 485 species of corals, and 2,400 species of fishes.

Statement of the Problem

The present status of most of our Protected Areas especially in terms of biological resources conservation is considered critical. The next decade could perhaps be the last chance for the Philippines to save whatever is left in some areas located in the low land forests and the remnant mangrove, coastal and marine areas.

Many of our protected areas have not been spared by unregulated and exploitative activities such as forest clearings, extraction of forest products, dynamite fishing, collection of corals and wildlife, to name a few. Out of the 61 national parks, only 7 meet IUCN standards. Among our wildlife, there are 133 birds, 30 mammals, 13 amphibians/ reptiles and 10 plants listed by IUCN, CITES and ICBP under the category of endangered and threatened species.

Our mangrove areas have been reduced to only 10,000 hectares in relatively undisturbed condition whereas only 5-6 percent of our 27,000 sq km of coral reefs remain relatively intact.

Destruction has spilled-over into our protected areas because of the following:

1. The boundaries of most areas are not properly demarcated on the ground.
2. Inadequate funds and manpower. There is only one game warden per 8,000 ha and an average of \$602,000 or 3 percent of the total budget of the former Bureau of Forest Development was appropriated for protected areas and wildlife management.
3. Absence of master plans.
4. Inadequate facilities and amenities to attract visitors.
5. Low level of awareness among the public on the roles of protected areas.

Objective

The Integrated Protected Areas System (IPAS) Project aims to conserve the country's biological diversity thru the establishment and development of representative samples of biotic communities. These areas shall serve as reference sites, in-situ conservation areas, outdoor recreation areas, and cultural and historical heritage sites.

Basic to this is the identification of sites to be conserved or preserved, provision of funds, development of programs to upgrade the management of these areas, protection of these areas from unregulated and exploitative activities, and provisions for increasing the role of protected areas in sustainable development.

Current Status

1. Integrated Protected Areas System (IPAS)
 - a. The World Bank and the ADB have provided technical assistance in the review of our present national park system and recommendations on the kind of assistance needed in the management of our protected areas.
 - b. Preparatory activities for a technical assistance project on the establishment of an IPAS in the Philippines is being undertaken. The World Bank Technical Assistance aims to study and review the country's existing protected areas and design of IPAS.
 - c. Under the Debt-for-Nature Swap Program between the World Wildlife Fund and the Haribon Foundation, the protection, management and activities of two protected areas St. Paul Subterranean River National Park and El Nido Marine Sanctuary are underway.
 - d. Management and development of Mt. Arayat National Park through a Memorandum of Agreement between DENR and Philippine Tourism Authority.
 - e. Buffer zone management of Mt. Canlaon National Park in Negros Occidental under RRDP.
2. Wildlife Conservation
 - a. Guidelines on the imposition of a national quota on wildlife species allowable for collection and trade.

- b. Adoption of a policy on the total phase-out in 1994 of all exports of wildlife species collected from the wild except those bred in captivity.
- c. Several wildlife conservation projects are being maintained such as:
 - Calauit Game Preserve in Palawan
 - Philippine Eagle in Davao
 - Tamaraw Conservation Project in Mindoro
 - Pawikan Conservation Project
 - Crocodile Farming
 - Bioecology of Threatened Species

Most of these wildlife conservation projects are being implemented by NGOs.

- d. Tie-up with Japan Wildbird Society, ICBP and Asian Wetland Bureau.
 - e. Regulation of wildlife collection and trade
3. Nature Conservation Program
- a. Staging of "Hiyaw ng Kalikasan " Play in regional centers.
 - b. Community Natural Resources Awareness and Conservation Program (CONRACP) in coordination with the Department of Education, Culture and Sports and Department of Local Government.
 - c. "Lingap Kalikasan"

Gaps and Future Requirements

1. *Legislation and Policy*

Adoption of a Comprehensive Act providing for the establishment, management, administration and protection of a representative system of protected areas and a statement of general policy

2. *Integrated Protected Areas System (IPAS) Design*

A design for the protected areas system is needed to represent the bio-units and habitats of the Philippines in accordance with the IUCN standards.

3. *Institutional Arrangements*

An institutional arrangement appropriate for the IPAS concept is needed in the development of the protected area management profession and in the implementation of program. The protected areas planning must be integrated into the overall land use and regional planning.

4. Management System and Human Resource Development

There is a need to train and field more people to effectively manage our protected areas. Also needed is an essential management systems to service priority IPAS functions.

5. Community Development and Buffer Zone Management

Involvement and participation of communities in the implementation and management of IPAS must be considered. Initiatives on community development, buffer zone management and provisions for incentives to conservation activities are essential.

6. Conservation Education and Extension

Understanding and appreciation by the general public on the importance of conserving our biological resources/protected areas contributes to the wise use of our natural wealth.

7. Research, Resources Monitoring, and Data Base Establishment

Data and information on the resources within protected areas are basic information inputs to the formulation of plan for the development, management and regulation of the areas and the resources.

8. Direct Resource Support

Without the necessary funds, the plan for the effective management, protection and development of protected areas cannot be successfully carried through. Direct support is needed to implement conservation programs such as, ex-situ conservation, captive breeding, bioecology projects, basic resource inventory, protection strategies, buffer zone establishment, restoration ecology, etc.

Strategy and Relationship with other Agencies

The IPAS shall be implemented in coordination with governmental and non-governmental institutions. The following institutions have been identified to assist the PAWB-DENR:

Wetland Areas - Asian Wetland Bureau

Marine Reserves - UP Marine Science Institute

Terrestrial Protected areas - National Museum and U.P.

In addition, other state colleges and universities, NAMRIA and ERDB will be tapped for the Geophysical Information System (GIS) aspect of protected areas. Complementary to the local institutions are the foreign based organizations like ICBP, JWRC, Japan Wildbird Society, IUCN, etc.

To further promote nature conservation awareness, the Department of Education, Culture and Sports, Department of Local Government and NGOs will be involved. In like manner, the tourism value of protected areas is being linked with the Department of Tourism and the Philippine Tourism Authority.

Buffer zones shall be designed and implemented in consultation and coordination with the local people. The IPAS program envisions to make the local people aware that the protected areas is providing substantial benefits for them.

Organizational Arrangement

DENR through PAWB and its Regional Offices shall take the lead role. NGOs and other governmental institutions shall be contracted to undertake certain phases of the program. A program management staff shall be installed to oversee the implementation.

Potential Benefits

1. Permanency and integrity of protected areas.
2. Reverting of non- IPAS forest lands for social forestry and other similar programs
3. Zonification of certain categories of IPAS
4. Establishment of buffer zones that will create livelihood and minimize land-use pressures in core areas.
5. Assurances of conservation of representative samples of outstanding flora and fauna and biota ecosystems.
6. Increased opportunity for wildlife, fish and other marine life to reproduce.
7. Assurances of food, medicine, resources as well as culture of minorities
8. Sustained income and agricultural crop production for adjacent areas where the protected area acts as watershed.
9. Reduction of risk of pests and diseases due to diversity.
10. Conservation of protected areas which will attract more tourist causing a multiplier effect over livelihood among nearby villages.
11. Protected Areas ensure outstanding outdoor recreation areas.
12. Provision for reference sites, scientific and educational areas.

**PHILIPPINE POPULATION PROGRAM
FIVE-YEAR PLAN
1989-1993**

Background

The Philippine Population Program's Five-Year Plan has been formulated in response to the need for greater integration of the population dimension into development concerns. The importance of the interrelationships between population dynamics and socio-economic development was recognized by governments at the 1974 World Population Conference in Bucharest when they approved the World Population Plan of Action's (WPPA) recommendations and reaffirmed them at the 1984 International Conference on Population in Mexico City. The recommendation stated:

"Considering that social and economic development is a central factor in the solution of population and interrelated problems and that population factors are very important in development plans and strategies and have a major impact on the attainment of development objectives, national development policies, plans and programmes, as well as international development strategies, should be formulated on the basis of an integrated approach that takes into account the interrelationships between population, resources, environment and development" (Recommendation WPPA)

Practically all the participating countries agreed that population should not be treated in isolation but should be taken as an integral part of the socio-economic development process. These governments recognized that serious misallocation of resources may result if the indirect costs of plans, policies and programs arising from the interactions between population and development factors are not taken fully into account.

The call for the integration of population and development concerns in the Philippines was first made in 1978 by the Special Committee to Review the Philippine Population Program. This call was echoed recently by the 1987 Philippine Constitution, Executive Order No. 123 and the Medium Term Philippine Development Plan (1987-1992). As a response, the Philippine Population Program formulated its Five-Year Plan covering the period, 1989-1993.

Recognizing the country's limited resources, the Five-Year Plan aims at more efficient use of these resources through consistency of plans, policies and programs among the various agencies of government. Toward this goal, it seeks to increase the awareness and appreciation of policy-makers, planners, program implementors and the public at large of the importance of the influence of population-related variables on socio-economic development efforts which in turn impinge on the attainment of population objectives. In addition, the Plan recognizes the importance and urgency of fertility and mortality reduction as well as balanced population distribution in attaining population and development objectives in the short-run as well as in attaining population welfare in the long-term.

Situational Analysis

Population Situation

The mid-1989 UPPI estimates places the Philippine population at over 59 million and the estimated annual population growth rate, at 2.4 percent. This means that about 1.4 million people are added to the country's population every year. If this trend were to prevail, the

country's population will double in the year 2018. Consequently, there will be increasing pressure on scarce public resources and basic social services, (health, nutrition, education, housing and transportation) leaving little room for improving the quality of these services.

The estimated growth rate of 2.4 per cent is the difference between the estimated birth rate (31 per 1000) and the death rate (7.5 per 1,000). With this birth rate, an estimated 1.8 million babies are expected to be born annually. Such a yearly production of babies is likely to place great strains on MCH services, overstretched as they are. Unless the resources to improve the health services are available, one likely consequence will be continued high infant mortality, rising maternal mortality and possibly lower child survival.

The Philippine transition from high to low levels of mortality is far from being completed. The current estimates of CDR = 7.5 and IMR = 53 are still very high by developed country standards. These are also trailing behind the levels attained by the newly-industrializing countries in the Asian region.

The slackening in the decline of mortality can be partly traced to the persistence of communicable diseases which affect mostly infants and young children. These age groups significantly contribute to morbidity and mortality as they prove to be most vulnerable to pneumonia, respiratory conditions, diarrheas, bronchitis, measles and dysentery. Included in the ten leading causes of death among infants are congenital anomalies and conditions related to perinatal and early neonatal environments and birth process.

On the other hand, about 2 million women between the ages 15-49 become pregnant every year. It is expected that 20 per cent of these annual pregnancies will be high-risk and will need specialized care. Each year, close to 9 million women of reproductive age in the country expect to have an average of 4.5 children each by the time they reach the end of their childbearing years. A large proportion of these births occur in two year birth intervals.

Health manifestations of the frequent and high risk pregnancies in the country are many. Routine statistics indicate that out of every 10,000 reported births, 9 mothers die of pregnancy-related causes. While this number hides the multitude of problems of the many who suffer from maternal morbidity conditions, the causes of deaths are indicative of the health system's inadequacies in providing maternal care. Maternal deaths are mainly due to hemorrhage (37 per cent) and hypertension complications (28 per cent). Of those due to hemorrhage, half of the deaths had been traced to postpartum conditions such as uterine atony and rupture and retained placenta. These women generally are the multipara with closely spaced pregnancies.

Family planning contributes significantly to health objectives. Moreover, family planning activities have a demographic impact and therefore are also contributing to other development goals beyond health. These activities are in line with the constitutional provision of the right of spouses to form a family in accordance with their religious convictions and the demands of responsible parenthood.

Rapid population growth also means more people entering the labor force, who will compete for the limited number of jobs available thus swelling the already large number of unemployed and underemployed. Unless the growth of the future labor force is slowed down through a decline in the number of births now, the problem of unemployment and underemployment is unlikely to be resolved even in the first quarter of the 21st century.

Furthermore, maintaining a high rate of population growth threatens the already precarious balance among natural resources, the environment and people. As more people exploit these

resources to survive, rapid depletion of marine and forest resources as well as environmental degradation will result. In addition, the economy's capacity to save and invest the country's resources in other productive activities, such as the development of physical infrastructures needed for agricultural and industrial transformation, will also be greatly limited.

Limited expansion of agricultural and industrial activities will hamper income growth, both at the aggregate and individual levels. Hence, the ability to purchase food and other basic necessities will lead to a continuation, if not a worsening of current malnutrition levels. Such conditions combine to lower the quality of family life in the short run and the quality of human resources in the long run. Yet, physically and mentally healthy people are needed to increase the capacity of the economy to support a growing population at higher standards of living. Otherwise, a deterioration in the quality of the labor force will make it even more difficult for the country to move forward, let alone compete with other industrialized and industrializing nations in the future.

In short, rapid population growth rate is related to the exacerbation of: (1) current poverty and marked income disparities; (2) high rates of unemployment and underemployment; (3) slow human resource development; and (4) over-exploitation of natural resources and degradation of the environment.

Current Population and Development Efforts

In 1978, the Special Committee to Review the Philippine Population Program noted that while some efforts had been taken to link the Program to other socio-economic dimensions of development, it had remained essentially a family planning program. In addition, the Committee observed that whenever population was considered in formulating development plans, it was often treated merely as a demand variable rather than as a factor influenced by socio-economic development. Hence, the Committee recommended that "the Philippine Population Program should be designed on a broader scale and be fully integrated in the national development plans of the country. Economic, social and institutional policies and programs should be evolved with a conscious consideration of their impact on demographic behavior and objectives."

Along this line, the National Economic and Development Agency (NEDA) initiated a project in 1980. Entitled, Population and Development Planning and Research (PDPR), this project served as a first step toward greater integration of population dimensions in the development planning process. Using a multipronged strategy of institution-building, training, research and research utilization, PDPR sought to address the problems generally associated with the weak linkage between population and development planning: insufficient information and research base for planning and decision-making and unclear institutional responsibility among agencies as to which one should be primarily responsible for integrated population and development planning.

To date, the NEDA-based PDPR project has increased awareness and appreciation of, and concern for, integrated population and development planning among the policymakers and planners whom it had oriented and trained. An indication of this is the improved integration of population concerns in the national development plan and the development plans of the four pilot regions. However, the promotion of such integrated planning needs to be extended to the remaining nine regions and to the local levels where only limited efforts have been undertaken. In addition, a large number of new government officials and planners, particularly from those agencies belonging to the economic cluster concerned with rural development, still

needs to be oriented. This group has expressed a keen interest in pursuing integrated population and development planning.

In 1972, the Department of Education, Culture and Sports (DECS) promoted population education (POPED) through its Population Education Program (PEP). It was then expected that POPED would bring about changes in understanding, attitude and behavior towards population-related concerns. The PEP developed curricula and other educational materials and trained supervisors, teachers and college professors. Today, POPED has been institutionalized in the three levels of the education system and is a component of the adult education and functional literacy program of the DECS.

Another major effort in population education is the Population Awareness and Sex Education (PASE) project of the Department of Social Welfare and Development (DSWD). Also initiated in 1972, the project aimed to inculcate among the youth, especially school drop-outs, knowledge and understanding of population, human growth and development, family life and responsible parenthood. Today, PASE is being implemented on a national scale.

Other efforts toward integrating population dimensions in development included some innovative approaches. For example, a few income-generating projects (IGP) for women were initiated in the past. The rationale for the IGP was that women provided with productive alternatives to childbearing, would ultimately opt for fewer children. Current efforts in this area include the Bureau of Women's Welfare's (BWL) Mother's Consultative Workshops and Women's Consultative Dialogues funded by UNICEF and UNFPA, respectively. The workshops serve as forums for identifying women's needs and formulating action projects on maternal and child care and livelihood skills development. These projects used the introduction of functional literacy efforts as entry points in depressed communities.

Other efforts include gender analysis training workshops conducted by the National Commission on Women (NCW) in collaboration with the Asian Institute of Management (AIM). These workshops seek to provide a way to ensure that women's concerns are included in projects and programs.

Current Family Planning Efforts

The family planning (FP) program is both a public and a private effort. In the public sector, the Department of Health implements an extensive FP/MCH program using its network of public health services. Complementing DOH efforts are the outreach networks of the local government units. The private sector is composed of more than 100 large and small non-governmental agencies (NGOs) with jurisdiction over a fifth of present family planning program infrastructure and personnel and are responsible for 35 per cent of service delivery outputs.

At the present time, there is nearly a universal awareness of family planning among the eligible population. The number of current contraceptive users rose from 32 per cent in 1983 to an estimated 49 per cent in 1989. The TFR has dropped from 5.9 children per woman to around 4.3 in 1989. Similarly, the desired family size among couples fell from 5.8 children in 1970 to about 4 children in 1989. The rate of population growth also diminished from about 3 per cent in 1970 to around 2.4 per cent in 1989.

To date, a nationwide service delivery network consisting of 3,545 static clinics, 42 comprehensive itinerant teams, and 51,000 barangay-level resupply and information service points has been established. First-line motivators and other field staff covering practically all barangays consisting of:

- 1,753 Fulltime Outreach Workers
- 51,000 Barangay Service Point Officers (BSPOs)
- 350,000 other volunteer workers who integrate FP in their work have been trained.

An Integrated Research on Medicinal Plants for Family Planning which aims to provide alternative methods for fertility regulation which are safer, effective and more affordable has been launched. At present, there are six medicinal plants under study: gumamela flower; Kamias fruit; corn silk; ampalaya fruit; ipil-ipil and makabuhay.

An Adolescent Fertility Program which provides information and counselling services in centers and schools by trained guidance counsellors was undertaken. There are now about 12 adolescent centers offering such services.

A National Consultation among 107 Natural Family Planning NGOs was conducted. The consultation delineated a clear collaboration scheme among NGOs with church-based Family- Planning Maternal and Child Health (FP-MCH) networks.

Despite the above accomplishments, the delivery of family planning services suffers from a number of constraints. Among these are:

1. Conflicting policy interpretation and perspectives for implementing the family planning program;
2. Inadequacy of, and delays in program funding;
3. A still existing wide gap between the levels of FP knowledge and attitude and that of practice; while the level of knowledge is reported to be 97 per cent the level of practice was only 44 per cent at the beginning of 1987;
4. Limited contraceptive choice with the program offers only one brand each of pills, condoms, and IUDs. Other contraceptives such as neosampon, jelly, diaphragm, etc. are not available. A further constraint is the dependence of the program on foreign assistance in terms of contraceptive procurement.
5. General insufficiency of clinic personnel compounded by the high attrition rate of medical personnel constrains the integration of FP into regular activities of the DOH;
6. Unavailability of FP services in many areas due to inadequate and fluctuating number of stationary clinics and mobile service teams;
7. Absence of IEC materials in the field;
8. Unsystematic mobilization of motivators' network leading to duplication of work and to inadequate coverage of certain areas;
9. Limited number of accredited training institutions;
10. High yearly drop-out rate of acceptors (around 50 per cent) as a result of past overemphasis on generating new acceptors;
11. Lack of focus on priority targets such as the high risk groups, the underserved or the unserved in the delivery of services;

12. Preference for rhythm and withdrawal with limited use of scientific NFP;
13. View of targets particularly the "high scenario target" by some sectors as representing a coercive approach with the interpretation of said target as a "quota" that must be met in a given period;
14. Finally, a very apparent lack of consensus among the various participating agencies and unnecessary duplication of efforts and competition among fieldworkers in the family planning program.

In view of this, the POPCOM Board of Commissioners in its August 1988 meeting decided to delineate the roles of participating agencies with the Department of Health serving as the lead agency for family planning service delivery program. The role of NGOs with a service delivery component is to complement the FP services of DOH while the other NGOs/GOs will focus primarily on information, education, communication and motivation (ICEM). The challenge remains to be the promotion and maintenance of smooth flow of communication and working collaboration in order to meet program objectives.

*INFORMATION, EDUCATION AND COMMUNICATION (IEC)
AND CONSTITUENCY BUILDING*

Overview

The DENR believes that true development occurs when people participate in the planning as well as in the implementation of programs that affect their daily lives. In line with the PSSD's general strategies, principally on the strengthening of people's participation to ensure success in environmental and developmental efforts, and as a concrete step to provide a forum for non-governmental organizations and peoples' organizations to express their concern for the environment and natural resources, the DENR NGO Desk was launched on September 22, 1989.

Its objectives are:

1. to serve as coordinating center between DENR programs and NGOs/POs;
2. to identify NGOs/POs, classify them and authenticate those that are developmental and people-oriented;
3. to disseminate or make available to NGOs/POs such information about DENR policies, programs and projects;
4. to tap NGO/PO potential and resources for better delivery of DENR services to actual and direct beneficiaries;
5. to maintain a working relationship between DENR and NGO/PO, especially in the evaluation and monitoring of area-based programs;
6. to come up with DENR policy guidelines on NGO/PO participation and cooperation;
7. to help in the expansion of NGO/PO participation in DENR programs, policy-making and monitoring activities;
8. to coordinate with other government agencies in relation to NGO/PO work.

In order to achieve these objectives, the Desk identified the following strategies:

1. **Networking/Linkage** - to set up a mechanism for NGO/PO partnership in DENR programs and projects, including inter-agency coordination, using the framework of environmental and natural resource concerns;
2. **Data Bank** - to establish a data bank of resource inventory or directory of NGO/POs and funding institutions; to categorize NGO/POs by nature, scope and specialization;
3. **Monitoring/Evaluation** - to monitor and evaluate DENR programs and their impact to the local populations as well as national reaction; to monitor and evaluate NGO/PO assisted or managed DENR programs for possible duplication and expansion.

Having set its objectives and identified its strategies, the Desk now functions as follows:

1. Coordinating Center

- a. to make a directory of NGO/POs and classify them according to nature, services offered, scope or area covered, location of office/s, level of participation of local people; coordination with government agencies
- b. to announce the existence of a DENR-NGO Desk, its concerns and functions
- c. to provide central office coordination assistance among NGO/POs, regional offices and attached agencies, on programs with national impact or significance

2. Information Center

- a. to capulize and package DENR programs to appropriate NGO/POs
- b. to make data readily available to NGO/POs
- c. to update regional offices of NGO/PO activities on DENR projects and policies

3. Monitoring and Evaluation Center

- a. to monitor and evaluate existing joint NGO/PO - DENR undertakings
- b. to formulate and propose such actions to maintain and improve the working relationship of NGO/POs and DENR.

Targets were set in 1989 with the following results:

1) as of August 11, 1989 :

- classified and identified those NGO/POs that can link up with DENR ;
- gathered data on programs affecting NGO/POs from all DENR offices, bureaus and attached agencies;
- identified and prioritized DENR programs for NGO/PO participation ;
- gathered concrete response from field offices on NGO/PO work and reactions to NGO/PO desk ;
- signed Special Order to formalize NGO/PO desk .

2) as of December 15, 1989

- there has been active and regular participation in the inter-agency NGO body
- evaluation of DENR regarding NGO/PO involvement ;
- participation of an NGO/PO in at least one DENR program implementation per region .

NGO Desk Developments

A compilation of existing NGO lists has been categorized into developmental, civic, religious, business, foundation. Possible DENR cooperators have been identified. The compilation was found to be incomplete, with only 396 listed so far. NGOs which have newly coordinated with DENR have not been listed, especially those which did not enter into contracts for any of our programs, although they have facilitated DENR coordination with the local people.

The accreditation standards for general listing in the Desk has been finalized using the NEDA requirements and additional DENR technical requirements. Track record was considered very important in short listing the NGO/POs for specific DENR programs. The Desk adopts other criteria in the different short lists for various programs to ensure that the most appropriate NGO/POs will be tapped.

The NGO Desk Presentation

Various programs and projects which are geared towards environmental protection and socio-economic upliftment are implemented with the participation of NGOs.

Copies of rules and regulations, guidelines, and primers of social programs that interest developmental NGO/PO are made available through the DESK. These include guidelines on the DESK itself, urban pollution, smoke-belching, small-scale mining, river revival, reforestation and social forestry

1. The Debt-for-Nature Agreement among World Wildlife Fund, HARIBON Foundation and DENR

The agreement covers planning of an IPAS, field survey of critical plant sites in the Philippines, field study of Philippines medicinal plants, improved implementation and enforcement of CITES and Philippines Laws Regulating the Trade In Wildlife and Wildlife Products, manpower development and training for DENR community level resource managers, fellowships for graduate degree program and research, conservation of El Nido Sanctuary, conservation of St. Paul Subterranean National Park, and DENR Program Management Support.

2. River Revival Program or the Navotas, Malabon, Tullahan and Tenejeros Pollution Flood Control Program

This is an inter-agency effort to rehabilitate degraded and heavily polluted river systems along the Municipalities of Kalookan and Navotas and a portion of Valenzuela and Quezon City. NGOs involved are the Voluntary Industries for a Clean Environment (VOICE) which construct wastewater treatment facilities in order to reduce the level of pollution in the Tullahan River; San Miguel Corporation for public information and awareness campaign on the adverse effects of water pollution and the Boy Scouts of the Philippines for tree planting activity along the river basin.

3. Campaign Against Smoke-belching

This new approach aims to raise the level of awareness and knowledge of motorist and the general public on the air pollution problem and take positive actions to control it. NGOs involved are the Kapatiran Gomburza, Inc., YMCA, Soroptimist International of Makati, Bishops Businessmen's Conference, HARIBON Foundation, MIRIAM PEACE, MUFFLER Jaycees and Lingkod- Tao Kalikasan. Areas of involvement are apprehension

of vehicles, information-education- communication and provision of food and clothes to the field volunteers during apprehension.

4. Integrated Social Forestry Program

This program is implemented to promote the social and economic growth of the uplanders through popular participation. Various NGOs and farmers associations are directly involved in project implementation, manpower training, community organizing and policy formulation. Some NGOs involved are CARE International, PBSP, UPLB Foundation, ANGOC, Kalahan Educational Foundation, International Institute for Rural Reconstruction, Phil Uplands Resource Center, Episcopal Commission on Tribal Filipinos, Society of Filipino Foresters, Zeta Beta Rho, and numerous upland farmers association.

5. Mangrove Rehabilitation Program

NGOs are now being tapped in the rehabilitation of degraded mangrove resources through an inter-agency Coastal Resources Management Committee composed of the Bureau of Fisheries and Aquatic Resources, U.P. Marine Institute and PAMAMALAKAYA and Tambuyog representing the aquaculturists, fishermen and other groups concerned with mangrove resources. They shall be directly consulted in formulating guidelines on mangrove resource management.

6. National Forestation Program

The program encourages the participation of a broad sector of the population by enlisting their specific areas of expertise and entering into activity - specific contracts for various components of the NFP. Private sectors involved are classified into family, community and corporate contractors, such as the World Ecologists Foundation, NATURE, PCAPI, PFEC and Sta. Cruz Mission.

Aside from harnessing the participation of these NGOs in the programs mentioned , the DENR has been directly sensitive and responsive to the demands of the people.

In 1987, for the first time in history, the President of the Philippines signed a Community Forest Stewardship Agreement with the Pundasyon Hanunuo Mangyan, a people's organization of the Mangyans of Mindoro. The CFSA is a land tenure agreement that answered their clamor for government assistance to protect their ancestral lands and stop the unabated upland migration of lowland farmers.

In the Angat Watershed, the DENR linked up with the people who complained of illegal logging activities in the area. Public consultations in the presence of the governor and other local officials were held, resulting in the forging of agreements with the DENR. Further, permits to transport cut rattan were given to the Dumagat communities who were the actual gatherers, through the Pinagbuklod na Samahan ng mga Dumagat sa Angat Watershed.

There is the MIDSALIP experience where the confiscated logs of Sunville Timber Concession in Zamboanga City was released and donated to the people in the area.

The most recent people's initiative is the Fasting to Stop Illegal Logging in Bukidnon where a Six-Point Commitment was made by DENR with the people of Bukidnon, among which is the cancellation of logging permits in the area for gross violations of forestry laws.

There are other similar efforts. Suffice it to say that the Desk seeks to implement natural resource-based livelihood and conservation programs geared towards community development and poverty alleviation by NGO/PO in priority areas nationwide.

Today the Desk has listed more than 500 NGO/PO nationwide which have one way or the other coordinated with the DENR. Of the list, an initial 100 have been identified to be developmental with a record of commitment for the socio-economic upliftment of their beneficiaries in the local communities.

Two basic strategies have been undertaken:

1. training of NGO/PO in all aspect of project formulation and implementation; and
2. provision of capital funds in the implementation of development projects

Through the Desk, the DENR strengthens joint undertakings with NGO/PO where local communities show interest with a potential for partnership in environmental and natural resource concerns.

The most important role of the NGO/PO linkage, however, is to ensure the continuity of policies that are people-oriented and community-based. When the NGO/PO involvement is institutionalized, the NGO/POs can exact pressure in future administrations to make sure that these policies and programs are not arbitrarily changed. The DESK envisions itself as a channel that facilitates the genuine involvement of the people in the DENR programs, through their NGO/PO.

SUSTAINABLE FOREST RESOURCE MANAGEMENT

The core of any Master Plan for Forestry Development should be to take care of the remaining natural forest so that they will be saved, protected, conserved and improved (Reyes, 1989 6). Stated government policy is indeed "forest conservation for sustainable development". This is prescribed by the Constitution in Sections 2-4 of Article XII. Production is not the only goal, however, for the forests affect people who live near and far from them. Thus, any plan which does not take the social aspects into consideration has very little chance of successful implementation.

To achieve this multiple goal, seven objectives were identified. They are to set aside a permanent natural forest estate, to ensure long-term security for the forest estate, to enhance forest productivity, to improve regional, provincial and local economic stability, to enhance social equity and promote employment, to maintain environmental stability, to conserve biodiversity and finally to protect and develop ethnic cultural communities.

This Sustainable Forest Management Plan proposes some major changes in forest policy in order to achieve the goal and objectives outlined above.

1. The remaining virgin dipterocarp forests, the pine forests of Mindoro and the mossy forests should be preserved and incorporated into a national protected areas system.
2. The remaining logged-over forests should be identified as part of a permanent forest estate dedicated primarily to timber production and other forest products compatible with the primary purpose, and be brought under management for sustained production without unnecessarily disrupting the log supply to existing industry.
3. In managing logged-over forests, existing institutions will be tapped primarily the local and regional communities that directly benefit from these forests. In this respect it is suggested that a broad range of institutions, private organizations and local community organizations be contracted by DENR to manage presently unallocated production forest lands for regional, provincial and local development objectives.
4. The fees on forest products need to be raised to a level whereby the management of the forest (including its protection, and rehabilitation) can be carried out. It is suggested that these be raised from PHP30 - per cubic meter of logs to 20 % of the wholesale price in Metro Manila, an increase to about PHP500- per cubic meter. For other forest products the suggested rise is 10 %. These fees should be used in part by the government to take over some of the present responsibilities of the concessionaires.
5. Using the existing concessionaire system, a smooth transition from logging in the old growth forests to logging in the logged-over forests is proposed. There is no doubt that in some instances this may not be possible but the DENR does have resources to soften the blow, e.g., there is still some 1.6 million ha (1989 figure at deforestation rates of 119,000 ha per annum) of forest unallocated, some of which could be reallocated, especially to those TLAs which have faithfully followed good management practices.
6. After illegal logging and further destruction of the forest are brought under control in provinces where logging ban was imposed, harvesting may be reintroduced upon the establishment of forest management, protection and silvicultural improvement measures.

The key to the plan, however, is ensuring the fifth policy change, a smooth transition in line with present government policy but which shall ensure that all the environmental and conservation concerns are also addressed. Several options for the introduction of this change in policy can be envisaged.

The period 1990-1995 has been identified as a transition stage, during which permanent Production Forests are to be delineated, the assessment of the logged-over forest and its productive potential carefully determined and evaluated, and long-term management plan prepared and instituted.

During the first three years, an inventory of each logged-over forest area on a management unit basis is required to determine the condition of the forest. This is the first step in preparing management plans for each TLA, for by-and-large, the state of these forests is not known.

Once inventory is completed and as they become available, the results should be used by FMB experts and each concessionaire to prepare a management plan based on the actual condition of the forest.

Given the quite varied nature of all these forests, it is proposed that a new management system be introduced, called the Sustainable Forest Management System (SFMS). Simply, a management plan of each forest should be prepared after examining stock and volumes on a stand basis. Where appropriate the PSLS will be used, where not, other forms of harvesting regimes will be introduced to take into account the ecology and structure of each forest. It is expected that much of the forest shall enter a 60-year cutting cycle. The concept here is that of a systematic approach to harvesting and silvicultural treatments as far as "geographical or locational" orderliness is concerned. Every single hectare of each forest will be attended to on a cyclic rate, the rate to be determined in each management plan.

In the case where there is not enough logged-over forest in an existing TLA for operations to continue smoothly, the Forest Management Bureau should examine the adjoining areas (and if none, further afield) to compensate and provide logged over forest to ensure continuity of supply. Another alternative is for the DENR to encourage consolidation of TLAs where there is not enough logged-over forest. This must be handled on a case- to case basis.

It is assumed that security of tenure will be guaranteed for management units subject to the managers adherence, among other conditions, to the guidelines of sustained yield management. Annual allowable cut will be determined by area either for 35 years in the cases where the Philippine Selective Logging System (PSLS) is to be practiced, or after 60 years where the forest is not in a state for its continued application.

For timber production planning purposes it is estimated that about one million ha can be further treated under the SLS for areas containing about 100 m³ per ha. Forest areas containing 67 m³ per ha need enrichment planting and TSI, among other measures, and that the final 0.1 million ha should be submitted to other treatment, such as enhancement for rattan plantations, exotic tree plantations etc. This forest of about 3.0 million ha is in variable condition, fragmented and also degraded, for which no silvicultural prescriptions can be made until more information about their condition is known.

In the case of fragmented forests and canceled TLA's, the government should move swiftly to bring these areas under management. Alternatives to do this are many. The government could reallocate the areas under TPSA to the private sector, allocate these areas to local communities, establish specific government-owned corporations (RFDC's) etc.

By the end of the fifth year, the end of the transition phase, the government should have demarcated the forest boundaries, determined the management arrangements for continued production, decided which areas need TSI, enrichment planting, rattan planting, etc. and be able to make financial commitments for these purposes.

An integral part of forest protection is boundary marking. The boundaries of both virgin and logged-over forest need to be marked on the ground especially in areas subject to high deforestation pressure. This should be completed in three years.

For the first twenty-five years, an even and sustainable flow of high quality log production is estimated at 3.2 million m³ per year. As the forest develops it is expected that this annual supply of logs can be increased to the predicted annual sustainable cut of about 4.8 million m³. These logs are to be primarily used for sawn timber and face and back material of plywood.

Comparing timber supply with predicted demand, however, it will not be possible to maintain a balance after the first few years unless there are measures taken to encourage more efficient timber use and promote substitution. After some years the gap between supply and demand will become too large for these measures to be effective in reducing the gap between supply and demand and therefore early measures are needed to start planting tree species outside of natural forests which shall supplement production from the natural forest.

Promoting and ensuring social equity through access of local communities to presently unallocated Production Forests, and pragmatic recognition of ethnic cultural communities rights are also an integral part of this plan. Substantial resources are included to assist in creating employment through a wide range of forest based activities. The support and help of NGOs is being actively encouraged.

An integral part of the Plan is the elevation of forest fees to represent an equitable rent for the resource and to reinvest part of the proceeds back into the forest to increase its productivity. Proposed increases in forest fees are expected to generate P1.62 billion (USD73.64 million.) in the first year if 3.24 million m³'s produced. This figure should increase in the future for the proposed determining mechanism is such that fees will be linked to the market price of the product.

The danger in raising forest fees without provision of feedback mechanisms for forest management is recognized and the DENR Secretary shall use powers already vested in the office to ensure that funds are made available for forest management purposes. These will be introduced gradually and after due consultation.

A financial plan is proposed which shall require some US\$xxx million (including funds for reequipping US\$25 million etc.); the establishment and financing of regional forestry development \$xx millions, Research, Monitoring and Evaluation \$xx millions, some USD25.0 million for assistance to ethnic cultural communities within the Production Forests all for a total package of US\$yyyy million. It is proposed that initial cash flow constraints shall be financed through outside funds borrowed specifically for the purpose. The internal rate of return on operational funds needed is calculated at between 6-10% depending upon the specific activity.

With respect to environmental and ecological considerations, the plan addresses areas of concern with regard to tropical forest management and recommends methods of removing or reducing to acceptable levels any negative effects which the implementation of the plan may have. In fact, many new criteria for logging practices have been proposed to ensure that the deleterious forest practices of the past are not perpetuated. Those which shall have most

benefit are new upper slope limitations, elevation limitations and strict control of logging practices.

Cooperation by other sectors can assist the DENR achieve the objectives of this plan. In particular, for aerial surveillance it is envisaged that the armed forces will be listed and supported to overfly forest areas regularly to identify incursions and to assist in providing means and personnel to enforce the law. This is also the case with the Philippine Constabulary. Other sectors will also be involved such as Agriculture and Education.

Monitoring and evaluation of progress of the plan is essential. It is proposed that joint evaluation teams will be established by the Government specifically for this purpose. In addition, NGO's will be consulted at regular intervals to be part of an evaluation and monitoring exercise.

Political will is extremely important if this plan is to succeed. Cooperation of both the Senate and Congress are needed to support the plan, support which will allow the present controversy to be reduced and allow the government agencies responsible to quietly get on with the job of taking control of the forests and forest lands again. Legislative support is needed for various aspects but overall it is recognized that an enabling law is needed.

At the end of the decade, the aim is to have made absolutely sure that no further forest transformation is taking place within a clearly defined permanent forest estate, that the government knows the state of its dipterocarp production forests and has a monitoring and controlling service which shall ensure not only proper silvicultural and harvesting practices which are neither biologically nor environmental deleterious, but also a proper revenue collection system representing a fair and equitable rent on the resource, a major part of the proceeds of which are reinvested in the management of those forests. On the social side, the plan proposes to promote economic stability and social equity both for ethnic cultural communities specifically and on a more general scale through the distribution of forest to local communities and through employment generation.

URBAN ECOSYSTEMS MANAGEMENT PROGRAM

Introduction

Rapid urban growth produced large cities in the country's developing regions. Such growth, however, took place without good planning and inefficient transformation of resources. This has resulted in a variety of problems, particularly concerning accommodation and services. These problems are manifested in increasing air and water pollution and physical deterioration. They are aggravated by the fact that the growth of these megacities have never been viewed in an ecological context. Immediate measures, therefore, need to be undertaken, to transform these cities from insatiable users of natural resources and despoilers of the environment into real centers of civilization.

State of the Urban Ecosystems

The urban population grows at a faster rate than the national average due mainly to the influx of people from the rural areas. It is estimated that by the year 2000, about 35 million or nearly half of the national population will be residing in urban areas. The top two urban centers of the country, namely Metro Manila and Metro Cebu, accommodate about one-third of the entire urban population.

The uncontrolled expansion of the urban areas generates large demand for urban infrastructure and services. These services have not kept pace with the increasing demand causing undesirable environmental consequences. In major urban centers, environmental deterioration has already exceeded the threshold of the urban ecosystem's natural regenerative capacity.

In Metro Manila, some 4000 tons of solid wastes are generated each day. This is projected to increase to about 5000 tons per day by year 2000. The collection and proper disposal of these wastes remain a problem. Not all are collected, some of which find their way into the river systems and add to the water pollution problem. Those that are collected are thrown into open dumps, posing health hazards to the surrounding communities and those who make a living out of dumped wastes.

Water pollution is also caused by the discharge of untreated sewage into rivers, creeks and esteros. All urban areas in the country have no efficient and comprehensive sewerage system. Their drainage systems, designed to carry surface water, have to serve as carriers of sewage and industrial wastewater. In Metro Manila, only 12 percent of the population is served by a sewerage system. The unserved areas account for most of the biodegradable organic pollutants that flow into the different river systems. A significant amount of organic pollutants comes from industrial wastes and solid wastes.

The big urban centers, particularly Metro Manila, also suffer from air pollution problems due to emissions from vehicles and pollutive industries. Activities being implemented to alleviate the situation include enforcement of the anti-smoke belching law and educational campaigns to raise the level of awareness of the public on the air pollution problem. These efforts are, however, not enough. In Metro Manila, where most of vehicles and industrial firms are located, annual averages of total suspended particulates (TSP) exceed 250 mg/m^3 . This exceeds the US annual average TSP air quality standard by over 200 percent. Transport vehicles account for 60 percent of the air pollution while industrial firms account for the remaining 40 percent.

Current Programs

Some of the efforts being undertaken by the DENR to address the above mentioned environmental problems are:

1. **Rivers Revival Program:** The DENR, in cooperation with other governmental agencies, the private sector and non-governmental organizations, is currently undertaking a rivers revival program. The program is aimed at lowering the pollution load of major river systems such as the Navotas-Malabon-Tenejeros-Tullahan Pasig-San Juan-Marikina and Las Pinas-Zapote river systems. It is expected that, within the medium term, all the river systems will be fully rehabilitated and capable of sustaining marine life.
2. **Anti-Smoke Belching Program:** This action project is being implemented in coordination with LTO, CHPG, MMC and NGO's. There are ten (10) apprehension teams deployed daily in Metro Manila. As of December 1989 26,551 vehicles were apprehended.
3. **Metro Greening::** The Metro Greening (Luntiing Kamaynilaan) Project was launched in 1988 and 68 government agencies participated in the activity. This project aims to transform Metro Manila into a Garden Metropolis.
4. **Manila Metropolitan Region Environmental Improvement Study:** The study aims to prepare an Immediate Environmental Improvement Action Plan.

The Needs

The poor environmental state of the country's major urban areas is a symptom of the inability of society to deal effectively with the impact of urban growth. Policy and institutional reforms are needed. Pollution control policies and strategies, in particular, need to be assessed, as well as current structures and mechanisms for implementing projects.

The degree of environmental degradation has exceeded the threshold of natural regenerative capacity of the urban ecosystem. Direct intervention is required to rehabilitate the system. Rehabilitation efforts initiated by the government and other sectors must be continued and expanded.

The Program

Goal

In view of the multi-faceted problems faced by the country's urban ecosystems, a comprehensive program aimed at raising environmental quality to acceptable levels need to be established.

Objectives

The program should be designed to specifically meet the following objectives:

1. To improve process efficiency, minimize unwanted wastes and abate pollution, or the eventual relocation of highly polluting urban-based industries.
2. To deal effectively and efficiently with domestic wastes and unwanted by-products of economic activities.

3. To rehabilitate degraded components of the urban ecosystem.
4. To establish a sound monitoring system that acts as an early warning mechanism of impending threats to environmental quality and human health.

Components

The program must be able to decisively address issues previously discussed. Hence, its most important components shall be as follows:

- Water Pollution Control Component to manage domestic sewage and industrial effluents
- Air Pollution Control Component to control pollution generated by mobile sources (gasoline/diesel fueled vehicles) and stationary sources (industrial establishments)
- Solid Waste Management Component for the systematic collection and disposal of solid wastes generated by domestic, commercial and industrial establishments
- Toxic and Hazardous Substances Management Component
- Urban Forestry Component

The Strategy

A systems-oriented approach is needed to solve the environmental problems in urban areas. This approach is expected to generate a wide range of solutions, including policy and institutional measures and investments. Primarily, it calls for the development of a comprehensive package of pollution control/abatement and rehabilitation projects. The development of this comprehensive package will necessitate a study which could be undertaken under a technical assistance. The study should be able to generate the following, among others:

1. Analysis of macro and micro economic incentives to industry (such as access to more efficient process technology, fiscal and regulatory incentives, and investment financing) and proposals for specific policy changes.
2. Analysis of industrial subsectors' technical and economic capability for waste minimization and pollution control, and estimates of expected demand under alternative economic and regulation policies.
3. Recommendation on pollution reduction strategies for Metro Manila, Cebu and other urban centers.
4. Identification of environmental needs, and proposals for linkage with and strengthening city development policies and plans.
5. Institutional and management analysis of pollution control authorities and recommendations for changes in structure, strategy, staffing, training and career development and motivational incentives.

6. Design of pollution control fund and institutional and management arrangements for its operation.

Implementation

1. Environmental Sector Program Loan

The implementation of measures recommended by the technical assistance project would be ensured through the Environmental Sector Program Loan. Proceeds from this loan may be used to capitalize a revolving fund that will be utilized for lending to enterprises to finance their need for infrastructure, equipment and training. The fund can be maintained by loan repayments and deposit of pollution charges, fines and performance bonds. Where applicable, funds may be drawn from this program loan to finance rehabilitation projects.

2. Government of the Philippines (GOP) Support

A separate program has been formulated to strengthen the capability of the DENR to plan, prepare and implement programs on the management and administration of the environment and natural resources to be financed by the government. Included in this program are general support requirements of the Urban Ecosystems Management Program such as research and development, training and information, education and communication.

Organization and Management

The preparation and implementation of the program would require the involvement of several agencies, with the DENR as lead agency. Project preparation is expected to be undertaken jointly by the DENR and the Department of Trade and Industry (DTI) as well as government agencies at the metropolitan level. A steering committee will be established composed of the DENR, the DTI, the National Economic and Development Authority (NEDA) and local government units.

Responsibility for implementation of the various project components will, however, lie with the respective mandated government agencies.

Expected Benefits

The key benefits expected from the program would include improved competitiveness of local industries, reduced pollution, improved environmental and health conditions, improved economic prospects for other economic sectors and better planning and management.

Funding Requirements

The cost of preparing and implementing the Urban Ecosystems Management Program is estimated at over \$300 Million. The Environmental Sector Program Loan will account for the bulk of the cost, at \$250. The cost breakdown of the program is as follows :

	COST (in US \$'000)
<i>Technical Assistance</i>	
Program Development	595
<i>Environmental Sector Loan</i>	
1. Establishment of air and water quality monitoring stations, Infrastructure development (common wastewater treatment facilities, incinerators, NIERT, etc.)	60,000
2.. Environmental Revolving Fund	150,000
3.. Environmental Rehabilitation (Rivers Revival, Metro Greening)	40,000
<i>Regular Government Funds</i>	
Research and Development Information and Communications, etc..	50,000
Total	\$ 300,595
	=====

MARINE RESOURCE MANAGEMENT

Background

Resource Base

The country has extensive fishery resources with the territorial marine water covering some 240 million ha, including the exclusive economic zone (EEZ) and inland waters covering 812,657 ha of swamplands, fishponds and freshwater lakes, reservoirs and rivers.

Fisheries Contribution to the Economy

The fisheries sector accounted for 4.5 percent of the country's Gross National Product (GNP) in 1988. The fishing and fish farmers. Of this, 250,000 are engaged in aquaculture operations, about 700,000 in municipal fisheries, and 57,000 in commercial fishing. The annual growth rates achieved by the fisheries sector from 1979 to 1988 were registered at 4.1 percent and 6.7 percent in quantity and value, respectively. Currently fish products constitute about 4.9 percent of the total value of the country's foreign exchange earnings. The value of fisheries exports increased steadily from 782 million (64,890 mt) in 1979 to 9,600 billion (128,903 mt) in 1988. Fish meal, a vital component of animal feeds comprises the bulk of the country's fishing imports. For 1988, the major fishery imports were composed of fish meal, 44 percent (574 M), followed by frozen sardines/machineries, 33 percent (437 M) frozen tuna, 18 percent (P243) and canned sardines, cuttlefish and squid 4 percent (P51 M).

Production Performance

In 1988, the total fish production reached a record high of 2.3 million mt from its 1987 level of 2.1 million mt. Roughly, 1.09 million mt or 50 percent of the total fish production was contributed by municipal fisheries, and about 26 percent each by commercial and aquaculture subsectors.

Municipal fisheries production has gradually declined from its 1983 peak level of about 1.14 million mt to 1.09 million mt in 1988. This is attributed primarily to overfishing, destruction of fish habitats and feeding grounds such as coral reefs and mangroves by illegal fishing methods and the widespread disregard of fishing laws and regulations intended to conserve regeneration of fishery and aquatic resources.

On the other hand, the performance of commercial fisheries production has remained relatively stable at around half a million metric tons over the past decade.

Aquaculture production has shown dramatic increases from a low 113,195 mt or 8.9 percent of total fish production in 1974, to 602,030 mt or 26.1 percent in 1988. Of the total volume of 599,554 tons produced from aquaculture in 1988, brackishwater fishpond culture contributed largely with 240,206 mt (or 42 percent of total production from aquaculture). Seaweeds comprise the other major aquaculture commodity, yielding 220,839 tons (or 39.4 percent) in 1987.

Problems and Opportunities Facing the Sector

With respect to the current patterns of utilization, maintenance and sustenance of the country's fisheries resources, the Government identified the following key problem areas facing the sector:

1. The decline in production and productivity of nearshore fisheries is primarily due to overfishing, destructive fishing, siltation and the pollution of coastal waters. All 24 major bays of the country are now considered overfished; the fishing level of small pelagic is estimated to be double the level required to ensure resource sustainability; and the nearshore demersal stocks are estimated at only 30 percent of levels existing in the 1940's;
2. There has been an increasing environmental damage and imbalances within the coastal zone as a result of illegal and/or inappropriate fishing techniques, indiscriminate aquaculture development and inland pollutant sources and inadequate monitoring and protection of coastal waters from environmentally destructive activities. About 30 percent of the country's coral reefs has been destroyed and 70 percent have been subjected to major environmental damage. Of a total of 450,000 ha of mangroves originally existing, only about 100,000 ha remain. Of the country's 400 major rivers, 50 are heavily polluted and 40 are virtually dead. Until recently the "red tide" phenomenon seasonally affects increasing areas of the coastal zone;
3. Over 80 percent of artisanal fishermen live below the official poverty line. This is attributed to the increasing coastal population, and limited opportunities for alternative employment which seriously constraint their capacities to improve their standards of living;
4. The productivity of brackishwater fishponds, particularly of small fish-farmers, remains low, with yield currently averaging just a little over 1 ton/ha. This is primarily due to constraints in technology-transfer and inadequate access to credit financing for capital and operating investments;
5. Potential major offshore, deep sea resources, particularly of tuna remain untapped primarily due to inadequate information on available resource base and lack of attractive financing sources for the investors.

Major Policies and Institutional Constraints and Issues

The problems facing the sectors are in large measure the effects of past policy and institutional factors.

The need to promote and implement a countrywide, cohesive fishery management policy and system which imbalances effort against maximum sustainable yield (MSY) still calls for a more focused attention. Presidential Decree 704 which allows municipalities and concerned fishing communities to manage and control local coastal waters for the benefit of local fishermen, has been implemented in only few municipalities. Generally, fishermen have not been active in participative resource management. There is a need for more comprehensive policies or management controls on species or areas fished, as well as a need to strengthen government institutional capability to monitor and regulate coastal fishing violations including the development and operation and monitoring of agriculture ponds with regard to their environmental impact. In view of these problems, the sustainable resource management, particularly of nearshore areas has now become a fundamental policy and institutional issue.

At present, there is inadequate awareness among coastal communities on environmental protection and management of the coastal zone which requires some prevention and conservation measures. Dynamite fishing, cyanide fishing, mangrove deforestation and other similar and environmentally destructive fishing related activities continue to be undertaken by local fishermen with little realization of their long term impact on fishery resource generation.

Hence, the government's effort to educate resident communities and involve them in environmental protection and management. Moreover, the programs by the recently created Presidential Committee on Anti-Illegal Fishing and Marine Conservation which consists of concerned agencies (such as DA, DENR and the Department of Local Government), the private sector and NGO representatives have yet to receive substantial funding support in order to operate effectively.

Stock assessment and fishery management research are essential to provide the technical and economic information base for the formulation of the policies, programmes and investment opportunities. While a number of stock assessment studies and research projects are on-going in different parts of the country under a variety of agencies, there is inadequate coordination to ensure priority setting, complementary, and quality of output, and there is no existing mechanism on policy development.

The Bureau of Fisheries and Aquatic Resources (BFAR) has traditionally fulfilled the role of the main line agency for fisheries development. However since the early 80's BFAR has undergone a series of reorganizations and redefinitions of its role vis-a vis the sector. As early as 1987, as a result of the Government thrust to regionalize administration, the role of BFAR has been transformed to that of a central staff function, and its field extension services have been incorporated into the DA's general and agricultural extension services. The current extension services provide the wider range of general technological support to the various aspects of the fisherman's and farmers operation but they have to be improved to realign their focus to the priorities of the sector.

The access of coastal fishermen and small aquaculturists to formal credit sources remains limited. The reasons are varied : i) inadequate outreach capacity of the banking sector - 41 percent of municipalities do not have a bank, and in the Visayas and Mindanao regions this goes up to 68 percent, and ii) reluctance of banks intermediation costs, lack of sufficient collateral, and limited potential for business growth. As a consequence, only about 15 percent of small-scale fishermen had access to formal credit.

Returns to the fisherman for his daily catch are determined by the marketing margins which in turn are influenced by the length of route from capture to final consumption, the capabilities of preserving and processing, and the cost of transportation. Relatedly, post-harvest infrastructure such as landing jetties, auction halls, ice-storage facilities, power and water, and landing-to-market roads can have major impact on returns to fishermen, particularly by enabling them to have more direct access to the higher price in a form acceptable to urban and export markets. The Municipal Fisheries Ports Programs envisioned the construction of 178 small, simple landing facilities, with market places and processing/facilities. So far, only 44 ports have been partially completed, and the program does require further support, including close coordination between the Department of Agriculture and the Department of Public Works and Highways.

The Fisheries Sector Program

In addressing the problems and opportunities faced by the fisheries sector, the Government has developed a Fisheries Sector Program with the following objectives: i) regeneration, conservation and sustained management of the country aquatic resources; ii) environmental rehabilitation and protection of the coastal zone; iii) poverty alleviation and occupational diversification among the marginal fishermen; iv) intensification of aquaculture within ecological limits; and v) optimal exploitation of offshore, deep sea resources.

In essence, the Program comprises a series of policy and institutional reforms which the Government has already initiated with a package of investment programs to support the sector. The policy and institutional reforms are as follows:

- 1 Rationalization of the issuance of permits and licenses for fishing boats, gears, fishing concessions and public lands for aquaculture to ensure that: i) granting of permits are guided by established Maximum Sustainable Yields (MSYs) and are based on resource and ecological conditions of the concerned fishing or fish farming areas, and; ii) fees or rents paid for the privilege to use public resources reflect economic levels;
- 2 Decentralization of management of nearshore fisheries resources to municipalities and local fishing communities. In this connection, the Department of Agriculture will: i) push for the accelerated enactment of municipal ordinances; ii) decentralize authority and simplify procedures for clearance of such ordinances subject to national laws and/or policies, and; iii) follow-up the amendment of PD 704 to expand the scope of municipal regulatory powers and to ensure that municipal fishermen are given preferential use of the municipal waters;
- 3 Strengthening of enforcement of fisheries laws thru the Presidential Committee on Anti-Illegal Fishing and Marine Conservation and the adoption of Bantay-Dagat scheme. Locally-based interagency law enforcement teams will be organized with representatives from the fishermen's associations, NGOs, the private sector, the local government, PC/INP, coast guard, DA, DENR and other concerned agencies;
- 4 Establishment of a National Fishery Information System to provide solid technical, ecological and economic data base support to policy, investment and resource management decisions for the sector. The system will provide periodic information on fisheries resources, fisheries habitats, inland pollution sources and socio-economic indicators. The system will be initiated with: i) comprehensive resource and ecological assessments in the 12 priority bays; ii) inventory and assessments of inland fisheries and aquaculture ponds in the 6 priority regions; and iii) stock assessment and exploratory fishing for tuna in selected offshore waters;
- 5 Promotion of community-based initiatives to rehabilitate, conserve and protect the coastal resources (such as mangroves, coral reefs and other fish habitats) and to diversify the sources of income of small-scale fishermen from overexploited neashore areas towards other income opportunities, including land-based activities. As a general policy, NGOs will be engaged to assist in and/or undertake community organization, reorientation of fishermen and livelihood diversification.
- 6 Prioritization and coordination of research efforts to support the new Fisheries Sector Program. A network of one national and three zonal marine fisheries research centers will be established. The network will be in the form of cooperative ventures with regional universities and/or research institutions involving sharing of staff, facilities and financial

resources. Moreover, scholarship programs will be established to improve research capabilities;

- 7 Expansion of extension services by establishing a Provincial Fisheries Management Section (PFMS) with up to five fisheries specialists in each targetted area. Close linkages among research institutions, extension units and the fishermen will be established to respond to the immediate needs of the sector in the following priority areas: i) management of coastal fisheries resources; ii) improvement of productivity of aquaculture particularly for milkfish and tilapia; iii) improvement of quality control and reduction of post-harvest losses; and iv) wider exploitation of deep sea resources;
- 8 Encouragement of the formal financial institutions to address the credit needs of the fisheries sector in support of: i) income diversification among marginal coastal fishermen; and ii) intensification of aquaculture development. In relation to this, the existing credit delivery system and funds under the Integrated Rural Financing Program and the facility of the Guarantee Fund for Small and Medium Enterprises will be utilized to direct the flow of credit to the sector;
- 9 Continuation of the provision of a minimum standard of postharvest facilities particularly in areas where the private sector is not capable or is not willing to put up such facilities. Whenever there are interested parties, these facilities will be sold or leased to the private sector at terms and conditions acceptable to the Government; and
- 10 Extension of trade incentives to assist in making export products more internationally competitive. These incentives may include: i) reduction of tariffs, duties and taxes for the importation of offshore fishing vessels, parts and equipment; ii) upgrading of quality control procedures to the level acceptable to major importing countries; and iii) active membership to international organizations for exchange of trade information.

Coverage

The coastal zone component of this program will be implemented in the following 12 priority bays over a five year period (1990- 1994):

1. Manila Bay;
2. Calauag Bay in Quezon Province;
3. Tayabas Bay also in Quezon;
4. Ragay Gulf in Quezon and Camarines Sur;
5. San Miguel Bay in Camarines Norte and Camarines Sur;
6. Lagonoy Gulf in Camarines Sur and Albay;
7. Sorsogon Bay in Catanduanes and Sorsogon;
8. Carigara Bay in Samar, Biliran and Leyte
9. San Pedro Bay in Samar and Leyte;
10. Ormoc Bay also in Leyte;
11. Sogod Bay in Southern Leyte, and;
12. Panguil Bay in Misamis Occidental, Zamboanga del Sur, and Lanao del Norte.

A total of 17 provinces with 146 coastal municipalities will be involved in the implementation of this program.

These 12 priority bays have been selected based on the following criteria:

- i) resource regeneration requirements
- ii) environmental degradation problems
- iii) poverty levels of fishing communities
- iv) initiatives in self-regulation by municipal governments and local fishermen

For aquaculture, implementation will be done in the six priority regions which have been selected based on the extent of aquaculture development in these areas. These are:

- Region I - Ilocos
- Region III - Central Luzon
- Region IV - Southern Tagalog
- Region V - Bicol
- Region VI - Western Visayas, and
- Region IX - Western Mindanao

Investments in the Sector

In order to implement these reform measures and achieve program objectives, the following six investment programs have been drawn up for implementation over a five-year period (1990-1994):

A. Fishery Resource and Ecological Assessments

1. Establishment of the National Fisheries Information System;
2. Nearshore fishery resource and related ecological assessments in 12 priority bays, with the possibility of other priority areas being included;
3. Aquaculture and Inland Fisheries census and assessments in 6 priority regions;
4. Tuna stock assessments in selected offshore areas; and
5. Strengthening of the appropriate government units.

B. Coastal Zone Management

1. Community development among fishermen to help them organize themselves and empower them to undertake self-initiatives in coastal zone management;
2. Resource Enhancement Programs which will include the establishment of artificial reefs fish sanctuaries and mangrove plantations;
3. Assistance to marginal fishermen to promote diversified income generating activities; and
4. Information campaign and training of target groups in the 12 priority bays.

C. Research and Extension

1. Preparation of a National Fishery Resource Program;

2. Establishment of a national network of existing research facilities;
3. Facilities upgrading and research scholarships;
4. Carrying out of specific research programs for coastal/municipal fisheries development, aquaculture and commercial fisheries;
5. Preparation of new extension programs; and
6. Retraining of extension staff

D. Law Enforcement

1. Provision of operation of motorized bancas, communications equipment for assisting locally established anti-illegal fishing task forces;

E. Credit

1. Provision of seed fund to catalyze availability of credit to the fisheries sector, particularly, for the diversification of income of small-scale fishermen and for the intensification of aquaculture production.

F. Infrastructure and Marketing Support

1. Rehabilitation, improvement and construction of selected fishing ports and other post-harvest facilities.

Summary of Investment Program

The total Program investment outlay over the loan period is expected to amount to \$200 million, of which \$80 million shall be financed by the Program loan from the ADB's ordinary capital resources (OCR) and Special Fund Resources (SFR), \$70 million from the Overseas Economic Cooperation Fund (OECF) to be negotiated in the 17th yen loan package, and \$50 million to be provided by the Philippine Government as counterpart funds. This program package shall be disturbed as follows:

Sector Program	Estimated Cost (\$'000)
1. Fishery & Ecological Assessments	15,000
2. Coastal Zone Management	33,000
3. Research and Extension	25,000
4. Law Enforcement	6,000
5. Credit	30,000
6. Infrastructure	26,000
<u>Sub-total</u>	<u>135,000</u>
7. Program Management	5,000
<u>Sub-total</u>	<u>140,000</u>
8. On-going Administration	60,000
<u>TOTAL</u>	<u>200,000</u>

Program Benefits

The program will initiate systematic and coordinated efforts of both Government and the non-government sector, in the sustainable development and responsible resource management of the fisheries sector. In this process, some of the benefits which will accrue to the economy and the country will be as follows:

1. Fishing effort in target coastal zone areas (the 12 identified priority bays), will be balanced with resource conservation and management initiatives, so that municipal fishing production becomes sustainable in the longer term, and fishing areas are fished only to their MSYs;
2. Incomes of municipal fisherfolk are expected to increase. With the control of illegal and destructive fishing, and the inducement of commercial operators to exploit deeper sea waters, as well as with income diversification efforts among municipal fishermen. Current experiences with related experimentation in the Lamon and Calauag Bays (West Luzon), indicate that income have risen from an average of P2,000 per fishing family per month to P3,500 per family per month;
3. Coastal zone management programs, such as mangrove plantations, artificial reefs and fish sanctuaries under the Sector Program, will have ecological impact on the fisheries resources in the coastal zone, and also offer immediate financial returns which will enhance municipal fish production and alleviate poverty among municipal fishermen. The Program will result in the reforestation/rehabilitation of about 30,000 ha of mangroves in the priority fishing areas. An estimated 500 km of artificial reefs will be constructed in these same areas, having an average of 1 km per coastal barangay. In addition, approximately 20 sanctuaries will be established, with one or two per priority fishing area. A typical two-hectare mangrove plantation which requires initial investments of between P4,000 and P7,000, will offer net incremental benefits of P1,000 per annum starting with the second year of initiation and increasing to P15,000 per annum from the fifth year onwards. The financial rate of return is estimated at over 80 percent. Fish catch per municipal fisherman involved in group-based establishment and maintenance of artificial reefs is estimated to increase by 30 to 35 percent by the second year. Similarly, fish sanctuaries created over coral reef habitats will contribute substantially increasing fish catch along the fringes of such sanctuaries, starting from the third year of establishment and doubling the fish catch within six year of establishment if appropriate management practices are adhered to.
4. With the rationalization of license fees and rents paid for the privilege of using public resources for fisheries exploitation (particularly offshore fishing by commercial operators and aquaculture development on public land), productivity in commercial fishing and aquaculture is expected to increase. This is particularly so far aquaculture, where an estimated 60,000 ha of public lands currently cultivating milkfish and tilapia, could have productivity increases from 1 mt per ha. to 2 mt and 3 mt per ha with average investments of P50,000 per ha and internal rates of return of well above 20 percent. Such production should be able to address increasing domestic consumption requirements; and
5. To assess more precisely offshore tuna and cephalopod resources, new fishing methods and techniques shall be tested. In support to this, trade incentives for commercial operators shall be extended in order to expand commercial production and related exports, and thus make the Philippines more competitive in the international export market, particularly for tuna, shrimps and cephalopods.

IMPLEMENTATION OF FOREIGN-ASSISTED PROJECTS IN THE ENVIRONMENT AND NATURAL RESOURCES SECTORS

ODA plays a critical role in the development agenda of DENR, considering the complex and varied concerns of the agency. Resource constraints have limited its capacity to vigorously pursue its objective of natural resource conservation and development. FAPs therefore provide a complementary and supportive role in bridging the gap between what can be covered under regular programs, and those that need immediate attention.

FAPs generally consist of technical and financial assistance to strengthen the capability of the Department and to implement and manage programs/projects.

From 1976 to 1989, DENR has implemented a total of 45 foreign-assisted projects. Twenty-two of these have already been completed as of December 1989. Twenty-three are on-going seven of which will be fully availed by the end of this year (1990) and the rest will be completed 1992.

By type of assistance, 35 projects in the ENR sector are funded by grant and the rest by loans.

Through the years, DENR's experience in the implementation of official development assistance can basically be characterized by a progression: from small-scale pilot testing of new/improved technologies to large scale project implementation. The RP-New Zealand Industrial Tree Plantation Project is an example of full scale technology application.

From specific institutional strengthening projects to integrated resource management approaches. Four institutional strengthening projects are being implemented. The Natural Resources Management and Development Project is an example of an integrated resource management approach;

From mainly forest-based undertaking to other natural resource concerns. During the 1976-1980 period, all 7 FAPs projects are in the Forestry Sector while in 1986-1989 period 11 projects implemented are in the mines, residuals/waste management and multisectoral projects;

From mere support components of larger irrigation projects of the National Irrigation Authority such as the Allah River Irrigation Project, the Bicol River Basin Development Project, the Bukidnon Irrigation Project, and other big irrigation projects to lead implementor as in the on-going Low Income Upland Community Project;

From project loan such as the Forestry Development Project in Ilocos Norte to program loan, the Forestry Sector program co-financed by ADB and OECF is an example of an on-going program loan.

Consequently, the magnitude of development assistance infused has increased considerably over the years. From US\$36.1 M in 1976-1980, US\$80.7 M in 1981-1985 to US\$292.3 M in 1986-1989.

From 1976-1989, a total of 11 projects were funded by 13 loans from ADB, IBRD and OECF. Total investment amounted to US\$288.813 Million.

The grant-funded projects totaled to 34 with Japan, USAID, Australia, and UNDP/FAO as the major donors. Total investment amounted to US\$56.542 Million.

With this support, the DENR has been able to undertake the following:

1. Integrated approach to watershed development;
2. Introduction and adoption of New Zealand technology of grassland conversion to pine forest vegetation;
3. Strengthened livelihood programs through agroforestry systems implementation;
4. Effective fire control and management;
5. Effective upland development strategies through farm development assistance to farmers as project entry points.
6. Harnessing collective efforts of farmer-beneficiaries for upland project planning and development;
7. Effective coordination and linkages with the community and local government in watershed rehabilitation;
8. Waste recycling as an effective tool to revert industrial pollution;
9. Integrated efforts on watershed development trainings and research throughout the ASEAN region;
10. National forest inventory using remote sensing and supplemented by ground truth;
11. Effective upland stabilization;
12. Participation of non-governmental agencies in the government effort to rehabilitate denuded ecosystem;
13. Mass propagation of minor forest products as an alternative solution to dwindling forest tree resource and supportive of the National Forestation Program; and
14. Development and adoption of technique for exploration of the country's mineral resources.

And in a gesture of appreciation for those donor/lending institutions who have cooperated with us in achieving the above accomplishments, allow me to mention the specific projects:

For the period 1976-1980 DENR had generated projects for Forestry Sector which included:

1. RP-Japan Technical Cooperation Project (JICA)
2. Multiple-Use Forest Management Project (UNDP/FAO)
3. Abra Pine Plantation Development Project (IBRD)
4. ASEAN-New Zealand Afforestation Project

5. Allah Valley Watershed Development Project (ADB)
6. Muleta Manupali Watershed Development Project (ADB)
7. Lake Bato Watershed Management and Rehabilitation Project (ADB)

For the period 1981-1985, the Forestry Sector projects included:

1. Buhi/Lalo Upland Development Project (USAID)
2. Integrated Forest Protection Pilot Project (IBRD)
3. Zamboanga Tree Crops Project (AIDAB)
4. Magat Smallholder Agroforestry Pilot Project (IBRD)
5. RP-German Timber Stand Improvement Project
6. Palawan Integrated Area Development Project--Land Classification Component (EEC)
7. RP-German National Forest Resources Inventory
8. ASEAN-US Watershed Project
9. Palawan Integrated Area Development Project--Upland Stabilization Component (ADB)
10. Palawan Integrated Area Development Project--Land Surveys and Titling Component (ADB)
11. Third Davao Irrigation Project--Soil Conservation and Watershed Management Component (ADB)
12. Philippine Forestry Development Project in Ilocos Norte (ADB)

For Mines Sector project, the:

1. RP-Japan Mineral Exploration and Tectonics of Two Existing Geologic Environments in the Philippines

For the period 1986-1989, Forestry Sector projects included:

1. Forest Fire Management Project (UNDP/FAO)
2. Feasibility Study on Rattan Plantation Development (ADB)
3. Formulation of a Comprehensive Scheme for Promotion of Commercial and Industrial Tree Plantation (ADB)
4. Rationalization of Wood-Based Industries (ADB)
5. Selection, Appraisal and Monitoring of Forestation Project (ADB)

6. Forestry Sector Loan (ADB/OECF)
7. RP-German Cebu Upland Project
8. Rainfed Resources Development Project (USAID)
9. Bukidnon Industrial Tree Plantation Project (New Zealand)
10. Bamboo Research and Development Project (UNDP/FAO)
11. RP-Japan Forestry Development Project
12. Dipterocarp Forest Management Project (GTZ)
13. Strengthening of Integrated Social Forestry Programme (UNDP/FAO)
14. Formulation of Master Plan for Forestry Development (ADB/FINNIDA)

Mines Sector projects composed of:

1. RP-France Study on Philippine Faults and Metallogenesis
2. Research and Exploration Techniques for Rare and Precious Mineral Resources (Japan)
3. Geodynamics and Metallogenesis (France)
4. Enhancement of Reference Sections of Sedimentary Basins in the Philippines (Japan)

For Environmental Sector:

1. BLISS Water Treatment (IDRC)
2. Crocodile Farming Institute (JICA)
3. Industrial Waste Exchange Project (IDRC)
4. Seagrass Habitat Restoration Project (IDRC)
5. Debt-For-Nature Swap (WWF/USAID)

And for Multisectoral projects:

1. Population and Environmental IEC Program (UNFPA)
2. Natural Resources Management and Development Project (AIDAB)

Following the PSSD Framework, current FAPs are categorized according to the following:

CATEGORY/STRATEGY	NUMBER	TOTAL INVESTMENT (In \$'000)
Rehabilitation of Degraded Ecosystem	6	297,784.43
Inducing Growth in the Rural Areas	6	13,414.10
Integrated Strategies	5	27,890.74
Conservation of Biodiversity	4	9,257.89
Intensification of Environmental Education	1	1,006.00
Residuals/Waste Management (Population Control)	1	138.00
	23	349,491.16

Given the urgency of environmental rehabilitation and rural development even in the previous years, programs and projects are necessarily concentrated in the first two strategies, e.g., rehabilitation of degraded ecosystems with six (6) projects and inducing growth in the rural areas with 6 projects. While certain strategies have not been adequately addressed by the ongoing FAPs, these gaps have been filled in under the DENR's proposed investment program for 1990-1995 which will be presented on the second day of this conference.

And, with the government's adoption of the PSSD, complementary programs in infrastructure, social development, agriculture and other sectoral concerns will be likewise developed. These programs together with those in environment and natural resources will provide the crucial ingredient to national growth and development. In carrying out these programs, official development assistance will continue to play an important role.

INVESTMENT PACKAGE FOR THE ENR SECTOR

Scope of the DENR Investment Plan

The key element of the new DENR Action Plan in support of the PSSD is an investment package consisting of discrete programs and projects aimed at solving some critical problems of the environment and natural resources sector and strengthening the DENR's capabilities as its lead implementing agency. This investment portfolio can be considered a vital initial step that emanates from DENR, although it includes projects identified jointly with other government agencies such as DA and DAR. It is envisioned that in subsequent refinements, the investment package will be transformed into a more comprehensive Environmental Action Plan that responds to areas of concern that are multisectoral in nature and involving other government agencies, social institutions and private sector.

Nature of Programs/Projects

Under the Medium Term Philippine Investment Plan, DENR is tasked with the four-fold mission of:

- 1) sustainable development of forest resources;
- 2) optimal utilization of lands and minerals;
- 3) social equity and efficiency in resource use; and
- 4) effective environmental management.

To concretize this mission, the Department has identified several sectoral Key Result Areas (KRAs) which are broadly classified into the following:

- a) natural resource management;
- b) restoring environmental integrity; and
- c) social equity and support to agrarian reform.

The development of the PSSD has provided a broader perspective in the preparation of the DENR Investment Package, while maintaining consistency with the Department's mandates and KRAs. The Investment Package highlights the importance of addressing ENR problems from an integrated and multisectoral approach. With the PSSD as the framework, the relationship between the policy and institutional reforms on the one hand and the programs and projects on the other are now better understood and appreciated.

The PSSD's guiding principles and its eleven strategic concerns provide the analytical framework for the planning and implementation of the programs and projects which are broadly subsumed under the sectorally defined KRAs.

As a consequence of this conceptual realignment, the DENR has shifted its focus to prioritize programs and projects under this investment package addressed to the eleven strategies.

Strategy 1: Integration of Environmental Considerations in Decision Making

Strengthening of the Environmental Impact Assessment Systems (EIAS) Program

Within two years time (1990 & 1991) the enforcement of EIA down to the provincial level will be installed through training and promotion and upgrading of expertise on EIA. This program will cost about \$11.06 million.

Strategy 2: Proper Pricing of Natural Resources

Natural Resources Cost Accounting Program

Major studies on Land Valuation and Forest and Mineral Taxation Alternative is proposed to be conducted and completed in two years (1990 & 1991). In the process of the studies, Administrative Orders and/or Legislation on Natural Resource Proper Pricing will be recommended. The cost of the Program is about \$0.12 million.

Strategy 3: Property Rights Reform

Property Rights Reform Program

This Program will initially concentrate on the Ancestral Domain of Indigenous Cultural Communities. We are proposing to complete in 1990 the documentation of customary rights laws and recommend appropriate legislation as necessary. This will be followed by identification and delineation of claimed ancestral domains of indigenous communities over a period of four (4) years (1992- 1995). This Program will cost \$2.40 million.

Strategy 4: Establishment of an Integrated Protected Areas

Integrated Protected Area System (IPAS) Program

In 1990 the design of the IPAS Program will be completed through the proposed environment and natural resources management sector loan. The design would include:

- a. management of terrestrial protected areas, marine protected areas, wetland protected areas;
- b. strengthening of DENR resource management capability;
- c. local community participation; and
- d. preservation of biodiversity thru establishment of breeding centers, community-based stock farming and nature conservation education.

This would cost about \$221.94million over a 5-year period (1990- 1994).

Strategy 5: Rehabilitation of Degraded Ecosystem

There are six (6) programs under this Strategy:

1. Expansion of National Forestation Program (NFP)

The proposed expansion is based on completed studies and plans under the on-going NFP. Pipeline and proposed projects has been identified over a 10-year period (1990-1999). The major components are:

- a) rattan plantation;
- b) management and development of production and protection forest;
- c) industrial tree plantation;
- d) protection of permanent natural tree plantations;
- e) installation of community-based maintenance on reforested areas; and
- f) installation of data base and mis.

The program will cost about \$1,114.65million.

2. Watershed Management Program

Critical watershed will be rehabilitated. This program will cover Marikina, Magat Watersheds and other degraded watersheds in the country. This will cost about \$338.77 million over a 6-year period from 1990-1995.

3. River Revival Program

Major studies will be conducted in 1990 to identify major river systems and water bodies affected by mine waste, taillings, waste disposals, etc.. This will be an expansion of the current effort of DENR on the "Ilog Ko, Irog Mo" River Revival Project. Other major river systems that are now on the pipelines are Pasig and Bulacan River Systems. The cost under this Program is about \$187.54 million.

4. Coastal Resource Management Program

An assessment of priority areas for mangrove rehabilitation will be conducted in 1990. This will be followed by full implementation of pre-identified sites from 1991-1995. The cost is about \$50.64 million.

5. Urban Ecosystems management Program

This Program is proposed to implement pre-identified urban centers for "Urban Forestry" and the enhancement of its environment projects over a five-year period from 1991-1995 with a total cost of \$301.95 million.

6. Rehabilitation of Environmentally Degraded Areas Caused by Small-Scale Mining and Quarrying Operation.

This Program will be implemented from 1990-1994 with a total cost of \$5.0 million.

Strategy 6: Residual Management in Industry (Pollution Control)

Pollution Control Program

This Program is designed to enhance the capability of DENR in conducting studies, technologies and monitoring the enforcement of appropriate pollution control in all industries of the country over a five-year period. This will cost about \$12.25 million.

Strategy 7: Integration of Population Concern and Social Welfare in the Upland

In support to the population program of the Government, DENR will undertake a study over a two-year period (1990-1991) as methods for population management in the upland, optimum carrying capacity of different ecosystems and innovation on population education in the upland over a six-year period (1990-1995). This Program will cost about \$2.50 million.

Strategy 8: Inducing Growth in Rural Areas

Two (2) major programs are proposed under this strategy:

1. Expansion of Integrated Social Forestry Program

The current ISF Program is now being financed from CARP, ADB, USAID and OECF. The proposed expansion would cover more areas in agroforestry, livelihood opportunities, establishment of upland growth center and expansion of community-based Agroforestry Reforestation Management. This Program will require a total amount of \$307.29million over a ten-year period (1991- 2000).

2. Development of Mineral Resources Program

This Program is proposed to provide facilities and training to promote proper small side mining operations, cottage industry for non-metallic minerals, technique on how to explore and extract precious metals. This Program would require \$33.33 million for 1990 to 1994.

Strategy 9: Intensification of Environmental Education

Information, Education and Communication (IEC) Program

This Program is proposed to enhance the capacity of DENR to undertake massive information and education campaign thru:

- a) training;
- b) facility support for production of information materials, audio visuals, etc.;
- c) conduct outreach program; and

- d) coordinate closely with DECS to include environmental and natural resource management in the educational system curriculum.

This would cost about \$18.63 million from 1990-1995.

Strategy 10: Strengthening Citizen's Participation

Non-Government Organization Participation Program

The establishment of NGO Desk at DENR has started the closer relationship between NGO and DENR. Under this Program, an NGO networking throughout the country will be undertaken as an expansion of DENR capacity to implement the ENR Programs. Part of this program is the training of NGO on specific skills that are required in ENR Program implementation. This would require \$12.58million from 1990 to 1995.

Strategy 11: Integrated Strategies

There are seven (7) Programs proposed under this strategy:

1. Regional Natural Resource Management Program

Under the SECAL, a Region-based study will be conducted on Natural Resources Management which will be completed by 1990. This study will be followed by a full implementation natural resources management projects at the regions up to 1995. The cost of the Program is US\$ 157.95 million..

2. National Mapping Program

This Program is designed to further enhance DENR capacity in mapping by photogrammetric techniques for GIS/MIS-based resource management, digitization of graphic information, densification of geodetic control, establishment of a SPOT/LANDSAT ground receiving station. The estimated cost is about US\$23.12million over a five-year period.

3. Comprehensive Natural Resource Inventory, Monitoring and Evaluation Program

An institutional building for establishing a natural resource management information system will be undertaken. This will support the effort in natural resource monitoring and evaluation. The cost is about \$58.26 million from 1990 to 1995.

4. Land Management Program

The Program is proposed to:

- a) establish a land information system;
- b) improvement of land management and land valuation;
- c) comprehensive review of geographic name and administrative boundaries; and
- d) support to ethnic cultural minorities.

The estimated cost is \$45.58 million from 1990 to 1995.

5. Agro-Industrial Forest Estates Development Program

An assessment will be undertaken in 1990 to determine specific location for an agro-industrial forest estate. It is estimated that US\$168.42million will be required to support the program from 1990 to 1996.

6. Research and Development Program

This Program would include proposed establishments of:

- a) research and training centers;
- b) actual researches on tropical forest and upland technology verification;
- c) coastal/inland resource research; and
- d) training of DENR staff.

Total cost under this Program is US \$84.42million from 1990 to 1994.

Financial Requirements

To implement the various programs and projects identified under the DENR Action Plan, a total of US \$3.38 billion will be required in the next five years. The breakdown of this cost according to project types are as follows:

- 1) \$.062 billion in technical assistance (TA) for 93 projects;
- 2) \$ 0 .94 billion in capital assistance (CA) for 27 projects; and
- 3) \$1.87 billion in 7 program assistance (PA).

Scope of the Programs/Projects

The DENR identified package has listed a total of 126 programs and projects, which can be classified into project types as follows:

1. 93 projects comprising the TA category covering 56 projects for institution building, 8 for Research and Development and 29 for studies (pre-investment and policy);
2. 27 projects comprising the CA category that would directly support the development requirements of the various sector through infrastructure development, equipment acquisition, credit lending, service delivery or livelihood generation; and
3. 7 major program assistance for a bigger support, involving the implementation of projects that are linked with policy and institutional reforms, such as the NFP, ISFP, IPAS, etc.

Process of Resource Allocation and Prioritization

The process of identifying and selecting the DENR Investment Program has taken into consideration the larger context of the Public Investment Programming System applied in NEDA which principally involves the preparation of the Medium Term Public Investment Program (MTPIP) and the Medium Term Technical Assistance Program (MTTAP). It is the intention of the Department that in the next round of updating, the DENR Investment Program shall become the basis for endorsing programs and projects that will be included in the public investment programming system. Currently, a total of 72 ENR projects are incorporated in the MTPIP/MTTAP. Following a process of sanitization, augmentation and prioritization of the programs/projects that were identified to fall under the DENR Investment Package a total of 126 programs and projects would have to be listed. Of this number, 34 projects were retained and are considered listed in the MTPIP/MTTAP. The remaining 92 programs and projects shall be the subject for inclusion in the next updating of the MTTAP/MTPIP.

ALTERNATIVE FINANCING SCHEMES

Many of the environmental problems facing Third World countries like the Philippines are global in character and hence international cooperation is the key to maintaining the earth's resource base. Air and water pollution, deforestation, desertification and loss of biological diversity among other serious environmental problems are not only limiting domestic economic growth of developing countries but are in fact seriously changing the natural system that support world economy.

Most developing countries are already struggling to meet the needs of their population and to service their external debts and they are going to need more financial resources to carry out sustainable development efforts. Indications are such that about as much as \$20-50 billion will be needed per annum over the next decade to finance the conservation needs of developing countries.

A wide range of financing options should be explored to meet the huge financing deficit of developing countries in managing their ecosystems and resource base. The major constraint has been the absence of the private sector - whether local or international - in raising funds for these purposes. Private investors are normally attracted by projects with quick and high returns. Further, the benefits of many conservation investment like clear air and genetic diversity cannot be sold to consumers.

There is also an urgent need to increase the flow of conservation financing from the developed to the developing countries. Addressing global issues as maintaining forest and biodiversity confer benefits as well as costs to all countries - both from the North and South, hence justify more cooperation in terms of financing the environment.

Alternative financing schemes available to the Philippines include:

1. Expanding Development Assistance Activities for sustainable natural resource management

Present annual development aid flowing in developing countries exceed \$40 Billion. Within this aid flows, more amount can be allocated directly or indirectly to environmental projects. To ensure this strategy, development assistance agencies and recipient countries like the Philippines should incorporate the environmental implications of development projects through more effective EIA procedures, terminate environmentally unsound projects and policies, and reallocate funds to strengthen environmental protection and resource management. This would mean for example that infrastructure projects like highway construction that cuts into tropical forests should be supported by additional financing to handle effects of erosion and sedimentation, the probable influx of migrants, and other investments to protect the resource base.

2. Increased Public/Private Partnerships

Multinational, national, and other private businesses depend directly on the natural resources of the Third World and collectively they lose in case of resource degradation. Private companies should contribute a percentage of their earnings to assure sustainable resource development. For example, a recent proposal of the U.K. and Netherland Timber Trader's Association is to levy a surcharge of 3 to 5 percent on tropical timber imports to be used for financing sustainable forest management by the International Tropical Timber Organization (ITTO).

"Nature Tourism" is a good example of how private investment can benefit both the investor and the environment. Tourism and travel industry now generates some \$30 billion per year from North - South tourists to view pristine habitats and wildlife, and enjoy tropical wilderness areas.

3. *Debt-for-Nature Swap*

The Debt-for-Nature Swap involves the purchase by a conservation group in an industrialized country of government debt notes in the secondary market, at market prices, with a discount. These debt papers are then "donated" to a local or target country conservation NGO, which redeems the papers at face value. The funds are used to finance conservation projects mutually agreed upon by both parties. This scheme allows for the reduction of foreign debt without the concomitant dollar drain, and it provides much-needed funds for critical conservation projects which in turn open up employment opportunities for local inhabitants in the project sites, thus contributing significantly to government efforts in boosting rural development.

4. *Sustainable Development and Conservation Action Plans*

There are efforts in countries like the Philippines to produce long-term national action plans like our present work on a 25- Year sustainable plan for forest development and on Integrated Protected Areas System. The Philippine Strategy for Sustainable Development will provide the long term plan and strategies not only for the environment and natural resources but for the rural development sector, population, industry, and energy concern in general. These action plans can secure better support from all sorts of funding institutions if properly tied up with global efforts for Third World Conservation such as the Tropical Forestry Action Plan which involves bilateral and multilateral aid agencies, Third World Governments, and NGOs. The Global Strategy for Conservation of Biological Diversity can provide necessary support to national efforts coming from international NGOs, research institutions, and development assistance agencies.

These four alternative conservation financing schemes can be supplemented by more innovative complementary financial initiatives that will respond to the institutional need to meet the global nature of environmental problems. Such initiatives which the Philippines should evaluate and possibly implement include the following:

1. *Supporting an International Environmental Facility (IEF)*

It is hoped that global efforts to establish an International Environmental Facility will be seriously supported by both developed and developing countries. This mechanism can help mobilize additional financing for conservation projects from bilateral, multilateral and the private sector on appropriate terms. Specifically this Facility will:

- a. Identify priorities within the Third World broad conservation agenda and strategies for successful intervention. With guidance from global approaches such as Tropical Forestry Action Plan, the World Conservation Strategy, and Global Strategy for Conservation of Biodiversity - the IEF can promote interagency funding support and respond to global environmental problems.
- b. Help generate well-selected and designed conservation projects, in coordination with NGOs and aid agencies by arranging project preparation funding and staffing.

- c .Help arrange co-financing for overall project packages from bilateral, multilateral, national government and private sector and other environmental financing sources.

IEF is conceived not as an independent institution raising its own funds but rather a cooperative undertaking of existing developmental and finance agencies. The idea is to stimulate response from developed countries on the concern for environmental degradation in developing countries thus spurring them to act together with new financial resources.

2. *Ecovest - A Pilot Investment Program for Sustainable Resource Use*

This scheme is directed at tapping the immense managerial, technological, and financial capabilities of the private sector. By lowering barriers to investments such as lack of incentives, risky setting, lack of long-term capital and focus on short-term profits, investors can share significantly more private capital into environmentally beneficial projects.

A pioneering pilot program combining the entrepreneurial and financial skills of the capitalists with the knowledge of the ecologists can possibly demonstrate that sustainable natural resource projects can generate attractive returns to investors.

Capital resource for "Ecovests" can be drawn from development assistance programs supporting the private sector and small-scale development activities, foundations that support sustainable use, existing development banks, socially-oriented investment funds and private investors. This can be augmented by credit and loan guarantees. Debt-for-equity and other debt conversions can also be used. This scheme should require that investment projects: a) use the natural resource base sustainably, b) benefit the local population economically, c) offer long-term returns to investors, d) demonstrate that conservation pays, e) provide replicable models to investors, and f) enlist significant private participation on areas that are not adequately developed.

In the Philippines, projects on Industrial Tree Plantation, the retooling of Wood Based Industries, and TSI on logged-over areas for concessionaires can be pursued under the "Ecovest" concept.

Other promising future projects include wildlife utilization which restores rangeland through game ranching, non-timber product development as fibers, oils, nuts and resins - investment in biomass energy projects; sustainable mariculture; aqua- silviculture in mangroves; and ecological-tourism.

3. *Sustainable Resource Management and Debt Reduction*

Other options to support debt-for-nature swaps should be considered. This should be viewed from a framework that the debt crisis should not only be discussed in conventional financial and macroeconomic terms, but also in terms of sustainable resource management. Programs and policy adjustments to ensure sustainable resource use should be part of any future agenda for debt restructuring, both at the sectoral and national levels. Moreover, these policy reforms can be used to provide new revenues for sustainable development.

One option is to persuade donor governments to allocate aid funds to support debt swaps for conservation and sustainable development. The US.AID for example has increased support to NGO's in Africa by channeling of aid funds through debt swap. This donation of aid fund through debt swap is not subject to the restrictive agreements that constrain direct buy-back by debtor governments.

For low-income, heavily indebted countries, another scheme is to convert bilateral debt to grants. This has been recognized by some donor governments and in 1987 alone some \$2 billion in bilateral debt was converted to grant or approximately 6% of outstanding debt to official lenders.

Additional debt relief can be explored to finance high priority programs in environment and resource management by converting debt obligations to domestic currency bonds. These can be achieved through several options for debt relief including reduction in interest rates, stretched-out repayment periods, and outright cancellation of debt service obligations.

Another recent approach is to tie up debt reduction with sector policy reform. Programs like the FFARM and ENR SECAL of the World Bank for the Philippines can be strengthened by linking environment and resource sector lending to debt reduction. Such sectoral adjustment programs can generate earnings through better collection of resource cuts, better enforcement of forest revenue systems, and incentives to resource-based processing industries while reducing over-exploitation of resources.

Improved earnings through policy reforms can be used by the Philippines with the help of World Bank or ADB to buy-back debt from creditors at secondary market prices. Since buy-backs require the use of foreign exchange revenues, there is a need to repurchase debts with more secure securities to properly align with flow of revenues.

These options - debt-for-nature swaps, debt buy-backs linked to sectoral policy changes, conversion of official debt to local currency bonds - can be achieved more effectively if integrated to the countries' overall debt restructuring plan. A policy agenda addressing global as well as national environmental concerns such as what is indicated in the PSSD should be an integral part of the Philippines' debt restructuring plans.

4. *Levies on Greenhouse Gases*

Prominent in the agenda for international environmental cooperation is the setting up of global trust funds to reduce greenhouse gases and help protect Third World ecosystems and possibly change the course of an impending global climatic change. If not properly financed and supported worldwide, climatic change can pose serious risk to sustainable development arising from rising sea levels, flooding, shifting temperature, and abrupt changes in habitat and depletion of ozone layer.

This Global Environment Trust Fund, in the order of several billion dollars per year should be financed primarily by coordinated national levies on greenhouse gases or their sources notably chlorofluorocarbons and fossil fuels.

The industrialized countries are responsible for high percentage of the CFCs and other greenhouse gases while developing countries through deforestation are removing carbon sink and add to emissions of methane and nitrogen oxides. Thus, international cooperation is what is urgently needed by setting up this Global Environment Trust Fund.

The Philippine Experience

DENR's experience with these financing schemes has been limited to the Debt-for-Nature Swap agreement with World Wildlife Fund (WWF), Department of Finance, and Haribon

Foundation, a local NGO. Under the agreement, WWF committed to acquire up to US \$2.0 million worth of Philippine external indebtedness, in Central Bank notes, at a discount of about 50%. The notes are to be redeemed at face value, in Philippine Pesos, to finance several priority conservation projects identified by DENR, Haribon and WWF. This scheme was chosen as DENR's initial venture into alternative financing systems.

As specified in the Agreement, the proceeds will be used to finance:

1. The planning, administration, protection, development, and management of protected areas and their buffer zones;
2. The training of conservation professionals to improve the local expertise in managing the country's natural resources; and
3. The institutional support of both government agencies and NGOs, and support for research activities in the gathering of data on critical habitats and wildlife species in the Philippines for conservation purposes.

The DENR component under the Debt-for-Nature Swap program involves the management and conservation of St. Paul National Park and El Nido Marine Sanctuary in Palawan. These two protected sites, chosen as major projects under the agreement, are representative samples of the terrestrial and marine features of the province that is considered the "last ecological frontier" of the Philippines. It is envisioned that these two parks shall eventually serve as blueprint and basis for the planning, management, protection and development of other national parks and protected areas in the future.

In the nine months since actual program implementation commenced, the Debt-for-Nature Swap Program has been able to come up with substantial accomplishments such as:

1. initial drafting of management plans,
2. establishment of management zones,
3. generation of employment in adjoining localities,
4. establishment of a communications network,
5. construction of ranger stations and the accreditation of our people as Deputy Fish Wardens and as Forest Officers, and
6. conduct of information campaigns and community management activities in the adjoining barangays and tribal communities.

All these were made possible by funding equivalent to about 60% of the initial tranche of US \$390,000.00 to finance the first year projects under the Debt-for-Nature Swap.

The remaining balance of US \$1.61 million will be released over the next two years to fund additional conservation projects identified by DENR, Haribon and WWF. There is the possibility of expanding the present debt-for-nature swap program and extending its implementation beyond the original three-year period. WWF and USAID are proposing an additional US \$25.0 million for Debt-For-Nature Swaps under the Multilateral Aid Initiative or the Philippine Assistance Program, which will finance another set of projects over an eight

year period. DENR is anticipating that an agreement will be concluded shortly to sustain the gains made by the program by ensuring the continuity of funding.

The Philippines is fortunate that a conservation organization like the World Wildlife Fund agreed to share the burden. The experience with the debt-for-nature swap program is proof that global cooperation can successfully bring about solutions to environmental problems.

As of June this year, the total amount swapped internationally has reached to only US \$100 million, compared to the overall Third World debt burden of US \$1.3 trillion.

In closing, we wish to reiterate that the Debt-For-Nature Swap is a modest step taken by the Philippines to use alternative financing schemes to ensure sustainable development of our natural resources. With the magnitude of global and national environmental concerns that we face, there is an urgent need to seriously evaluate and possibly adopt the other major financing options that we have just presented to you.

ENVIRONMENT AND NATURAL RESOURCES RESEARCH AND DEVELOPMENT

Organizations and Functions

One of the objectives of the Philippine Strategy for Sustainable Development is the enhancement of the foundation for scientific decision-making through research and development in environment and natural resources. This is being made possible through the generation of technologies and their transfer to the end-users which are the functions of several units in the Department. For ecosystems R&D, the principal coordinator and part implementor is the Ecosystems Research and Development Bureau (ERDB) which is based in the U.P. Los Banos campus. It coordinates and monitors the activities of its counterparts in the 14 regional offices-- the Ecosystems Research and Development Sectors (ERDS). Although the ERDS are directly under the Regional Executive Director, functional relationships exist between ERDB.

For basic researches on the environment, most particularly on pollution problems, the Environmental Management Bureau maintains a research unit which is centrally based in Metro Manila. The same is true with the Mines and Geo-Sciences Bureau which maintains a research laboratory in Quezon City. The Protected Areas and Wildlife Bureau also implements limited research on breeding biology and population dynamics of important wildlife, sometimes, in collaboration with the ERDB. In addition, the Crocodile Farming Institute, a special project of the Department also undertakes basic and applied researches on the physiology, biology and ecology of the two crocodile species found in the Philippines. These research units of the DENR maintain close linkages with other private research institutions.

On the national level, research on environment and natural resources are coordinated by respective research councils under the Department of Science and Technology, most prominent of which are the Philippine Council for Agriculture, Forestry and Natural Resources Research and Development (PCARRD) and the Philippine Council for Agriculture Aquaculture and Marine Research and Development (PCAMRD). These councils provide the national directions for R&D and assist in fund generation to finance studies. In both councils, the DENR is represented in the Governing Board and the Technical Advisory Committees. In the regional level, the Ecosystems and Development Sectors are active members in the regional consortia which are actually the regional clones of the national councils. The consortia also serve as the research arms of the Regional Development Councils.

Since the more active research arm of the Department is the ERDB, and its regional counterpart, a more comprehensive presentation on what they are, what they are doing and what they could further do will be made.

The ERDB was organized in 1987 with the issuance of Executive Order No. 192. It was the result of the merger of the Forest Research Institute (FORI) and the National Mangrove Committee (NMC). Under the same executive order, the regional research activities of the FORI were made organic units of the DENR regional offices and are now known as the Ecosystems Research and Development Sector. With the reorganization, the conduct of research also changed. It has evolved from what used to be commodity approach to the ecosystems approach. Compared to the former, the latter approach makes use of multi-disciplinary and inter-disciplinary means of solving problems plaguing our environment and natural resources by taking into account not only one or two but possibly all the major

factors affecting the problems and by providing solutions through the use of diverse expertise. This is carried out through the four main technology generating units in ERDB and ERDS. These are: (1) Forest Ecosystems, (2) Upland Farms, (3) Grassland and Degraded Areas, and (4) Coastal Zone and Freshwater Ecosystems.

The Forest Ecosystems unit is concerned with R&D programs dealing with the regeneration, protection, conservation and management of the dipterocarps, pine, mossy and plantation forests including non-timber forest products such as rattan and other vines.

On the other hand, the conduct of R&D programs on the plantation, rehabilitation and management of upland areas appropriate to varied bio-physical and socio-cultural situations are done by the Upland Farms Ecosystem units.

The problems on the grassland and degraded areas are addressed through the Grassland and Degraded Areas Ecosystem units. They implement research and development programs on the rehabilitation, protection and management of openlands, critical watersheds and degraded areas.

R&D programs on coastal zone and freshwater ecosystems are given comprehensive attention for their proper utilization, protection, rehabilitation and management of mangrove forests and estuarine areas, inland and coastal wetlands, riverine, stagnant and remaining freshwater resources.

Technology Transfer

To reach out to the end-users of technologies, there are technology development and transfer units in ERDB and in the regional offices. These units facilitate the verification of generated technology, documentation, packaging, transfer and utilization of information and technology. Examples of research publications are the SYLVATROP, The Philippine ENR Research Journal, CANOPY International, How to Manuals and the Research Information Series on Ecosystems (RISE).

Research Manpower

The manpower complement of the DENR for research and development are indicated in the following table:

OFFICES	TECHNICAL	SUPPORT
ERDB	196	197
ERDS (Regional Offices)	226	205
EMB	31	8
MGS	21	8
PAWB	8	5
LMB	22	25
FMB	19	5
TOTAL	523	453

Active and Potential Research Profile of the DENR

Ph.D. Holder (Candidates) 38

M.S. Holder 248

To further strengthen the research capability of the DENR, tie-ups with local and international institutions are maintained. A few of the many linkages actively pursued are with the Department of Science and Technology (DOST), the Forest Products Research and Development Institute (FPRDI), the State Colleges and Universities (SCU), Private Colleges and Universities (PCU), the United Nations Development Program (UNDP), Food and Agriculture Organization (FAO), International Development for Research of Canada (IDRC), UNESCO, WINROCK, IUFRO, JICA and IUCN.

Research and Development

A summary of on-going researches by ecosystems in ERDB and ERDS are presented as follows:

OFFICES	Upland Farms	Grassland & Degraded Areas	Coastal Zone & Freshwater Ecosystems	Forest Ecosystems
ERDB	12	12	9	14
ERDS	37	48	13	114

Likewise, for an appreciation on the complementation of research activities to the major programs of the DENR, titles of representative studies in each program are given below:

A. Integrated Social Forestry-Comprehensive Agrarian Reform Program (ISF-CARP)

1. Community-based Agroforestry Livelihood Project
2. Agri-livestock Livelihood Project
3. Fuelwood Plantation Project
4. Wildfood Plant Production, Processing and Marketing
5. Rattan and Bamboo Livelihood Project

B. Reforestation

1. Economic Evaluation of Different Reforestation Approaches
2. Species-site Adaptability Trials for Fuelwood/Reforestation Species
3. Growth Responses of Some Reforestation Species to Different Planting Design
4. Reforestation of Cogonal Areas in Panay Island Using Fuelwood Species Interplanted with Fruit Trees

5. Assessment of Selected Reforestation Projects

C. Watershed Management

1. Hydrology of Grassland Watershed
2. Development of Hydrologic Simulation Models for Selected River Basins
3. Control Techniques Against Soil Erosion
4. Hydrology of Dipterocarp Forest

D. Forest Management

1. Growth Structure and Composition of Logged-Over Dipterocarp Forest
2. Regeneration of Dipterocarp Species in Newly Abandoned Kaingin
3. Development of Selected Dipterocarp Species Under Various Site Conditions
4. Vegetation Dynamics in Selectively Logged-Over Dipterocarp Forest

E. Integrated Protected Areas System

1. Stockfarming of Calamian Deer
2. Studies on the Flying Lemur

Estimated Budgetary Needs of the Research Sector for the Next Five Years.

	(in US \$'000)
1. Forest Ecosystems	15,000
2. Grassland and Degraded Areas Ecosystems	10,000
3. Upland Farms Ecosystems	7,000
4. Coastal Zone and Freshwater Ecosystems	12,000
Total	US \$ 44,000

MINERAL RESOURCES

Introduction:

Philippines is one of the world's major producers of minerals. In 1988, the Philippines ranked 7th in the production of gold and 9th in both copper and chromite.

The mining industry's contribution to the Philippine economy is substantial. The sector brings into the economy \$500 million yearly in terms of export earnings. In 1988, foreign exchange earnings amounted to \$1.18 billion accounting for 12 percent of the country's total export earnings. For the last five (5) years, tax revenues derived from mining averaged P250 million or \$23.80 million.

Over the last three (3) years, the industry has infused P2.6 billion or \$123 million investments through mine expansion and new operations.

Total value added of the industry has been pegged to about 2% while total employment aggregated 470,000 in 1988 including those roughly 300,000 employed in small scale mining activities.

Sustainable Development as Guiding Policy

The Philippine policy for mineral resources development is to promote the optimum development of mineral resources that can give economic benefits over the long-term with equal regard to environmental protection and social equity.

Projects on Sustainable Mining Development

Projects geared towards sustainability of mineral resources development are already being implemented;

1. Foremost of these projects is the formulation of new laws on mineral resource allocation. The Mineral Resources Development Bill of 1988 formulated by the Executive Department and now being deliberated in Congress. It takes into account the economic, social and environmental aspects of mineral resources development including the structural framework that would institute a new system of mineral resources management based on sustainable development principles.

The People's Mining Bill is another legislation designed to convert the crudest level of small scale mining into a sustainable livelihood activity. It will legalize the tenure of the small scale miner even if their area of operation is covered by surface and mining rights of other people. Uniting the legal sanction to cooperatives would make it possible to introduce order in the small scale miners operations and enable government to deliver the necessary assistance and services to protect them.

2. The Mining Forest Program which was launched last year is a project that will enlighten miners about the need for sustainable development not only of mineral resources, but of the sources of materials needed in mining activities such as timber and water. The program encourages each employee of a mining or exploration company to adopt a tree in areas set aside by his company as mining forest.

3. **The value-upgrading program for known mineral deposits is one that aims to promote the sustainability of mining operations.**
4. **Promotion of timber substitutes from mineral resources is also sustainable development oriented. It is believed that greater use of stones, ceramic raw materials, cement raw materials and mineral particle board raw materials could greatly reduced the demand for timber in the housing, construction and mining industries.**

Program Needs

The foregoing projects and other activities being undertaken by Mines and Geosciences Bureau could be components of a comprehensive sustainable development plan for mineral resources. A thorough review of the Bureau's existing, on the pipeline and proposed projects vis-a-vis the Philippine Strategy for Sustainable Development identified the following gaps/needs.

Addressing these gaps/needs would maximize the economic and social contributions of the industry without sacrificing environmental quality and human lives:

1. **Need to expand mineral resources availability through more extensive mineral exploration and assessment in mineral reservations and vast offshore areas;**
2. **Need to upgrade mineral deposits through identification of previously non-viable by-products;**
3. **Need to develop timber substitute materials for housing, construction/building and industrial purposes from minerals;**
4. **Need to intensify small scale mining for downstream industries;**
5. **Need to formulate policies, guidelines and measures on the issues of environmental pollution and degradation attendant to mine wastes and tailings including toxic materials used in ore recovery;**
6. **Need to undertake follow-up studies/researches made on the development, exploration and promotion of identified mineral and geology of lowlands and uplands;**
7. **Need to implement deep-sea mining for manganese nodules that will render a big blow to exploration and development efforts for nickel and copper;**
8. **Need for a greater application of satellite aided airborne and shipborne exploration techniques;**
9. **Need to upgrade all MGB's equipment/ facilities;**
10. **Need to account for mineral production value from small- scale mining;**
11. **Need to develop more tools in mine prospecting;**
12. **Need to establish centers for marine mineral exploration and geology and mining methods and safety;**

13. Need to strengthen the EIA of proposed mines, rehabilitation of abandoned and closed mines;

14. Need to undertake studies on small scale processing techniques and milling equipment.

In order to have immediate solutions/measures to the aforecited needs and problems, Mines and Geosciences Bureau (MGB) has lined-up projects on "Small Scale Mining for Countryside Development", proposed under the Department of Environment and Natural Resources (DENR) Investment Package for Foreign Assistance, to wit:

1. Intensification of Small Scale Mining Operations for the Development of Ancillary Livelihood Industries;
2. Utilization of Minerals as Timber Substitute Materials for Low-Cost Housing;
3. Development and Promotion of Stone Craft Industry;
4. Development and Promotion of Pumice and Pumicite, Perlite and Synthetic Zeolite for Construction Industries ;
5. Promotion of Philippine Feldspar Production for the Ceramics and Glass Industry;
6. Accounting of Minerals Produced from Small Scale Mining.

To accelerate the measures taken on environmental pollution and degradation, Mines and Geosciences Bureau (MGB) has likewise proposed the following projects under Environmental Effects of Mining Operations, particularly Small Scale Mining:

1. Environmental Impact Assessment of proposed Mines in the Philippines including rehabilitation of abandoned and closed mines;
2. Construction of Mine Desilting Dams in Natural Drainage Systems;
3. Pollution Control and Abatement of Toxic Materials Used in Small Scale Mining; 4. Rehabilitation of Water Bodies Affected by Mine Wastes and Tailings;
4. Developing Recommendation to Reduce Pollution from Toxic Materials Used in Small Scale Mining.

In support to the SSM and Environmental Management and Protection Programs, Mines and Geosciences Bureau (MGB) has also prepared project proposals on:

1. Mineral Resources Development Exploration and Assessment for Ore Discoveries;
 - a. Study on Small Scale Ore Processing Techniques.
 - b. Study on Time Stratigraphic Boundaries and Production of Geological Quadrangle Maps in 1:50,000 scale.
 - c. Production of Geochemical Atlas Maps.

- d. Computerization of Mineral Lands Titling System.
 - e. Formulation of Strategic Plan for the Philippine Mineral Resources Development.
2. Mineral Value Upgrading and Technology;
- a. Development of Exploration and Extraction Techniques of Precious Metals (Gold & Platinum Group of Elements) found in Primary and Secondary Geological Environment.
 - b. Marine Exploration, Characterization and Extraction of Titanium, Vanadium, and other Precious Metals from Magnetite and other Heavy Mineral-Bearing Sands.
 - c. Intensification and Testing of Mineral Deposits which could aid Agricultural Development.
3. Institutional Building and Strengthening;
- a. Technical Assistance for the RPS Explorer and Petrolab in Mineral Exploration.
 - b. Establishment of a National Mineral Economics and Information Center.
 - c. Establishment of Asia-Pacific Committee for Co-ordination of Joint Prospecting for Mineral Resources in Asian Offshore Areas (CCOP) Training Center for Marine Mineral Exploration and Geology.
 - d. Establishment of Mine Technology Center.
 - e. Upgrading of Mines and Geosciences Bureau's Equipment and Facilities: Rock Mechanics Laboratory and Metallurgical Laboratory, Diamond Drilling Capability and Land Geophysics Equipment.

The investment package of the Mine Sector will certainly bring brighter hope for the exploration, development and utilization of the country's mineral resources towards an "abundantly diversified and sustainable production geared towards the socioeconomic upliftment of the people, and economic recovery program of our country".

DISCUSSIONS

*RESPONSE OF THE ASIAN DEVELOPMENT BANK
IN THE CONSULTATIVE MEETING OF ENVIRONMENT*

Honorable Chairman Villanueva, Honorable Secretary Factoran, Undersecretary Diokno, Undersecretary Umali, Officials of the Government of the Philippines, excellencies, distinguished participants from the donor communities and the embassies, Ladies and Gentlemen.

Three years ago, the Department of Environment and Natural Resources recognized itself to implement a bold and pioneering program on National Forestation. The Forestry sector had received serious set back in the Philippines. Therefore a bold and innovative and time bound program was required to decelerate the rapid destruction and denudation of forests and reconstruction of the Environment of the Philippines. Few believed at that time in DENR's capacity to implement the program. DENR approached the bank for financial approach to help implement the program. The program had inherent risks. It required confidence in the capacity of the DENR to implement. Above all, it required a complete commitment from the highest level of the Government. Mr. Secretary we are pleased to note today that our leap in faith and confidence in the capacity of the DENR to implement the Forestation program have been fulfilled under your dynamic leadership.

Program of this type which is sizable, pioneering and innovative and bold is a challenge both to the government as well as to us. This challenge has been shared mutually and we are still in the process of meeting the challenges together. The program of this nature do also encounter problems requiring close monitoring in which we are both involved.

The bank has reviewed the progress of implementation of various activities under the program. Overall the program is progressing satisfactorily. So far, DENR has complied with all the provisions specified in our loan agreement. On the policy and institutional reforms, guidelines had been issued, committees and task force as required under the loan agreement have been set up and administrative reorganizations undertaken. For field activities, the accomplishments have been impressive --150,542 ha. forested during 1988 and January-September 1989 against the target of 133,600 ha. scheduled for completion prior to the release of the second tranche. However, the conditionalities for the release of the second tranche of the loans required completion of specific targets for each component Viz Forestation program by government (55,000 ha), Forestation program by private sector (16,600 ha), watershed rehabilitation (10,000 ha), Integrated Social Forestry (36,000 ha), and timber stand improvement (16,000 ha). To date, it is noted that further progress will be required for forestation by government agencies other than DENR, watershed rehabilitation, and timber stand improvement; a combined area of 38,400 ha. is yet to be forested by mid 1990 under these combined categories. The bank's views on these activities has been discussed with DENR. We are pleased that DENR assured the bank that all requirements for the release of the second tranche will be met by June/July 1990. Further some qualitative improvements in the Forestation program needs to be made. These are species diversity, nursery management, outplanting techniques and standardization of performance monitoring. The forestry lease management agreements for management of these plantations on a product sharing basis need to be finalized.

Considering DENR's performance during the past 15 months of the program implementation, the bank considers that DENR would be able to achieve the expected targets by July 1990. The bank, however, will closely work with DENR staff on all program implementation matters on a sustained basis and close monitoring of programs have been designed. A bank special

review mission will be fielded in July/August 1990 to visit all administrative regions of the country to record and review progress on all aspects of the forestry program before the release of the second tranche of the loans. The bank also sees further room for future undertaking in reforestation and has included a second forestry program loan for 1992. The exact timing of processing of this loan will be decided with mutual consultation. Furthermore, we are discussing with the DENR the possible financing of an industrial plantation project including tree/rattan and bamboo for 1990 and a mangrove development in 1991.

We would like to congratulate DENR for currently undertaking the master plan for the forestry sector financed by the Bank and Finnida. The Master Plan will provide a framework for the long term development of the forestry sector of the Philippines. The DENR is also simultaneously implementing some of the plans as formulated in the Master Plan. The implementation of the sustainable forest management plan to conserve and develop the natural dipterocarpus forests of the Philippines will go a long way in the conservation and management of biodiversity in the Philippines. DENR needs to be commended for this effort. The bank has been appreciative of the high degree of consultation and coordination made possible by the donors community and would request DENR to ensure such consultation and coordination during implementation of the Master Plan. Whereas the Bank has been involved in the sector on a program frame when the Master Plan is completed it will provide an opportunity to other donors to get involved in specific projects.

The Bank has formulated a new forestry sector policy paper which among others has identified protection of threatened tropical forest ecosystem and conservation of biological diversity as an important area of concentration. The Bank through the Master Plan has helped in the preparation of a comprehensive protected areas management and conservation report. The Bank would like to play a lead role in this area in the Philippines in line with our involvement in the National Forestation Program.

The Bank is very happy to note of the remarkable progress made so far by the DENR and very pleased that it is contributing in a modest way in the rebuilding of Philippine forestry and the reconstruction of its environment of the forestry sector. Further the Bank considers it a privilege to have been identified as one of the working partners of DENR in this effort. And will continue to be with DENR as it implements the environmental investment agenda and policy reform initiatives.

UNDP'S THRUSTS IN ENVIRONMENT AND SUSTAINABLE DEVELOPMENT

The UNDP commends the Philippine Government particularly the Coordinating Council for the Philippine Assistance Program (CCPAP) and the Department of Environment and Natural Resources for convening this important meeting on a subject which is a critical concern not only of this country but of the international community as well.

Indeed there is a heightened concern in the world community that development strategies must not destroy tomorrow's natural resources in the struggle for better living standards today. Ecological security has become a major challenge of this decade. The inter-relationships between environmental protection and development along with the external debt issue were among the major topics during the 44th session of the United Nations General Assembly held last fall. In that meeting, strong support was expressed for the convening of the **United Nations Conference on Environment and Development** in May/June 1992.

Needless to say, the environmental priorities of the developing and developed countries differ according to their stages of growth. Developing countries like the Philippines are especially concerned with polluted water, inadequate sanitation, soil erosion and deforestation. Developed countries are more worried about air pollution and global warming. Nevertheless, environmental threats are all-pervasive and increasingly a serious concern for all humanity, North and South alike. A green agenda for our common future has become an imperative.

We have recognized that poverty is one of the greatest threats to the global environment. Plans of action for environmental improvement must also include programmes for reduction of poverty in the developing world. We know that many choices which degrade the environment, such as cutting down forests for fuelwood and farmland, are made in the developing countries out of necessity, for lack of alternatives.

The United Nations Development Programme (UNDP), conscious of its obligation to assist the developing countries in the environment field, recently adopted an **Environment Strategy and Plan of Action for the 1990s**. This strategy aims to substantially expand transfer of environmental technology to the developing countries. The UNDP will help strengthen their institutional and managerial capacity to formulate policies and to implement programmes for sustainable development. Our administrator is engaged in a series of direct consultations with member governments to gain their input on how this should be accomplished.

As you will note, the most important part of UNDP's Environmental Action Plan will take place at the country level. The following actions highlight the main elements of UNDP's strategy:

A. At the management level, these include:

1. Mobilize sustainable development networks through its 112 field offices around the world which could become focal points to promote and manage programmes for sustainable development in each country at the request of its government. They could

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help identify the most promising institutions in developing countries which can contribute to this effort. They will draw on national expertise through NGOs and domestic service schemes. Subregional and regional networks of institutions specializing in sustainable development will be linked in a network with similar centres in the developed countries. The network will be sponsored by the UNDP with the involvement of United Nations Environment Programme (UNEP) and other parts of the UN system.

In late 1988 and the whole of 1989, the UNDP has sponsored national workshops throughout the world which aimed at assisting governments integrate the environmental dimension in their development strategies. In the Philippines, we have supported three country workshops, the first of which was a consultative forum on the **Philippine Strategy for Sustainable Development** which we are pleased to note has already been cleared by the cabinet assistance system for adoption by the cabinet. This strategy document is a basic material in this meeting. The subsequent workshops dealt with Development of an Environmental Education Strategy for Sustainable Development and Review of the Implementation of the Environmental Impact Assessment (EIA) System in the Philippines. The former identifies programmes/projects to address the environmental problems of the country through formal and informal education at all levels. The latter workshop identified measures for strengthening the EIA system as an essential feature in the evaluation of major development projects including those funded by official development assistance. If additional resources are available, UNDP could do even more in the 1990's to provide technical assistance.

2. **Country Programme Reviews** - The mid-term UNDP country programme reviews are giving important attention to sustainable development and the environment. The mid-term review for the Philippine fourth country programme (1987-1991) held in last year has focused on alleviation of poverty, growth and sustainable development as the thematic thrusts for the remainder of the programme cycle and we expect that the same emphasis will be carried over into the fifth cycle country programme.

In the current UNDP country programme for the Philippine, Eight (8) projects worth over \$5 million have been identified as environment-related. These are:

- Phi/84/002 Marine Science and Resource Development (\$1 M)
- Phi/84/004 Strengthening of Agrometeorology Capabilities (\$205,594)
- Phi/85-003 Development of Geothermal Energy for Power a Non-Electrical uses (\$437,180)
- Phi/86/004 Integrated Control of Major Coconut Pests and diseases(\$733,852)
- Phi/86/006 Management of Geothermal Reservoir (\$398,000)
- Phi/87/005 Strengthening of Integrated Social Forestry Programme (\$880,310)
- Phi/87/008 Establishment of Preventive Maintenance System to Increase Productivity of Philippine Industry(\$1.089 Million)
- Phi/87/012 Strengthening Applied Research and Training for the Development of Dryland Agriculture (Main Phase) (\$1.054 million)

It may be mentioned that the UNDP also established a \$3 million **Fund for Project Preparation (Phi/86/014)** which provides assistance to feasibility studies selected by the government. Under this umbrella project, two sub-projects with significant environmental planning component are currently on going. **Palawan Integrated area development (Phase II)** and **Bicol River Basin Flood Control and Irrigation Development.**

There are four proposals related to the environment in the current pipeline for UNDP assistance. The proposals which require funding of over \$3 million are:

Phi/88/028 Strengthening Water Resources Assessment (\$682,391)

Phi/88/030 Remote Sensing (\$1,347,000)

Phi/89/005 Chemical Hazard Control (\$380,000)

Phi/89/020 Human Resources Development for Environmental Planning (\$963,500)

3. **Project Development:** Over 400 UNDP-supported projects targeted directly on sustainable development and the environment were operational at the end of 1988. These projects total over \$300 million. If projects funded from non-IPF resources were included, the total value would be about US\$500 million. In the Asia-Pacific region alone there are 198 environment related projects worth over \$156 million. New projects for sustainable development and the environment are being approved at an increasing rate in 1989. This trend is expected to continue through 1990 and 1991.
 4. **Coordination within the UN system:** Collaboration with UNEP, the World Bank and the regional development banks and other UN agencies is expanding, including the undertaking of joint ventures. This contributes to the integration of both pre-investment studies and technical assistance with capital investment projects to promote sustainable development.
- B. At the programme level the actions include:
1. **Financing Resource Conservation:** The World Resources Institute Report on Financing Environmental Aspects of Development, co-sponsored by UNDP and others, was issued on 22 September 1989. This report outlines two major financing options and new mechanisms for identifying, launching and supporting projects that increase the natural resource base. These options are: an international environment facility (IEF) to finance environmental aspects of development, and a pilot investment programme for sustainable resource use--ECCVEST. Both of these proposals will be examined in detail by the study group of the Secretariat of the Montreal Protocol.
 2. **The Global Observational System:** In support of the activities of the Intergovernmental Panel on Climate Change (IPCC), a programme will fill critical gaps in the global observational system of baseline stations for assessment of greenhouse gases and ozone trends in the atmosphere. This is being done in collaboration with World Meteorological Organization (WMO). The implementation of this programme requires US\$5 million over a period of three years--1990, 1991 and 1992. This programme will also build the capacity in the developing countries to deal with climate change issues. This will enable them to participate more effectively in the international dialogue on climate change.
 3. **FOUNEX II:** UNDP will participate in the establishment of a working group to prepare the groundwork for the 1992 UN Conference on the Environment. This effort has been designated FOUNEX II, after the original FOUNEX group which did the preparatory work for the 1972 conference. A meeting took place in New York in October 1989. The objective is to convene by mid- 1990 a group of about 15-20 eminent scientists, economists and political scientists to elaborate a conceptual framework for the conference, which must include an integrated and balanced approach to sustainable development. It would serve as an input to the preparations for and negotiations of the 1992 conference and its pragmatic action plan. It would also aim to establish criteria for placing in perspective the relative priorities of developing and developed countries with

respect to the environment. The thrust will be to identify specific actions that would result in effective collaboration between them in order to preserve planet Earth.

It might be mentioned also that UNDP, the Economic and Social Commission for Asia and the Pacific (ESCAP) and Asian Development Bank (ADB) are co-sponsoring a regional ministerial meeting on the environment in Kuala Lumpur in May 1990. The meeting will be attended by, among others, the prime ministers of Malaysia and Pakistan, and Ms. Brundtland, chairman of the World Commission on Environment and Development (WCED). The meeting is a follow-up to the Brundtland Commission's recommendations and will also serve as the Asia-Pacific region's input to the 1992 World Conference on Environment and Development.

4. The Tropical Forestry Action Plan: As of 30 August 1989 UNDP has provided financial support to 31 countries for the TFAP review, planning or formulation process leading up to round tables. Twenty-five are completed or ongoing; six are in financial negotiations. In 19 of the 31 missions UNDP is/will be the principal or lead financing institution for the planning exercise. The total cost of inputs committed/foreseen to the 31 exercises is over \$5 million.

In closing, may I state that the UNDP views protection of the environment and the environmental dimensions of development as sensitive issues. They generate a wide range of views among and even within countries. UNDP hopes to bring a dimension of credibility to this dialogue because of the impartial nature of our activities. UNDP is ready to serve as a focal point for efforts to interest individual donor countries in using its operational capacity to coordinate and manage projects in these particularly sensitive areas.

Open Forum

OPEN FORUM ON THE PHILIPPINE STRATEGY FOR SUSTAINABLE DEVELOPMENT (PSSD)*

Mr. Wiens (WB): The World Bank would like to congratulate the DENR and CCPAP on the preparation of the PSSD and a corresponding action plan. We would further like to express our gratification that these documents have been thoroughly reviewed and endorsed by NEDA, CCPAP and the Cabinet so that they genuinely represent the commitment by the Government as a whole. We are aware of few developing countries like the Philippines, which can legitimately claim to have brought the concept of sustainability of growth and the issue of environmental protection to the center of national development strategy. Mr. Chairman, any such strategy will have debatable elements, will have omissions. And the elements of the action plan in particular can be expected to change, to evolve as time progresses and the situation becomes clearer. No doubt, we should have a thorough airing of opinions in this Meeting on such details in the interest of perfecting the action plan. But we wish to recognize the Government's achievement in developing and obtaining a consensus on such a strategy for achieving sustainability and development. And the WB hopes that the international donor community will render full support to the strategy and accept it as the basis for planning their programs for the Philippines. Thank you Mr. Chairman.

Sec. Factoran (DENR): Thank you Mr. Wiens. Gentlemen, are there any other comments, interventions, questions, please?

Mr. Butler (USAID): I would like to congratulate you and the members of your team for the excellent presentation that you made this morning. I join my colleagues in the World Bank in pointing out that we also find it to be a most comprehensive discussion of the problems, the challenges and opportunities which face this country.

I think I would only like to leave one message from the point of view of the USAID, which is as the Department looks forward to address such a broader array of challenges, we think it would be very important to set priorities. The challenges are so broad and so sweeping to us as donors, and to you as a country, that setting some priorities and focusing on those that seem the most pressing and the most actionable in the short term will be critical in our ability to support your efforts. So, I would urge that as we go thru the process in the next couple of days, we continue to focus on this need. It would help us, I can speak for USAID and I suspect probably other donors as well, to know which are the most important priorities as you see them. Thank you very much.

Sec. Factoran (DENR): Thank you, Mr. Butler. Indeed, the prioritization would be one of the elements that we will discuss with you and present to you within these next few days. And I hope that in our discussions, we would be able to come up with some common understanding as to what these priorities should be, and specially in what priorities donors would like to come in.

* There is a separate document prepared on the PSSD

OPEN FORUM ON THE ORGANIZATIONAL REFORMS AND ABSORPTIVE CAPACITY

Mr. McDonald (CEC): Thank you, Mr. Secretary. I thought that other people would have many questions. But perhaps I would start the ball rolling.

Two questions on the organizational side are of particular interest to us since we have experienced these in our own projects: It is very interesting to hear of the mandate of the Department since its reorganization. I'm particularly curious to hear how the Department interfaces with, coordinates with, avoids overlap with other departments, in those specific technical areas where there is a clear overlap. Two areas that I am thinking of, for example, are upland agriculture where obviously DA and DENR must mesh; and the other one is fisheries where again, I believe, it's still DA covering the fisheries side. So I would like the different departments involved be brought together so as to share their experiences and to take coordinated steps forward in these areas.

The second question touches on the role of the different agencies concerned in inputting environmental concerns into project planning and project implementation. But, I'm more curious about project planning since as a starting point, it's more difficult. Perhaps that's a concern which can be dealt with relatively simply in, shall we say, single sectoral project. If you have an irrigation project, a hydro project, environmental concerns can be easily identified and a resulting framework can be relatively easily integrated into the planning of such project. But if we're looking at area of development projects, what steps are foreseen to have environmental concerns coordinated when such area development projects are prepared? I speak from the background of having been involved in the Palawan exercise, and I am wondering how that sort of exercise can be replicated in other areas of the country. Thank you, Sir.

Sec. Factoran (DENR): Thank you very much. Let's first deal with the possible overlaps. That issue has been recognized and acknowledged as early as the very first year of our administration. The mechanisms set up were, among others, the clustering of the Cabinet departments and the Cabinet Assistance System (CAS). The initial clustering of the Cabinet was the rural development cluster, where the overlaps of DA, DAR, and the DENR were resolved rather fast. In fact, that was the most active cluster of the five clusters that were initially established. We had coordinated planning exercise between DA and the DENR some years back. We expect to continue with this practice even with the change in Secretary of DA. Any operational problems that came up in terms of overlap and the filling in of gaps were dealt with fast at that cluster. And we had a system by which each department monitored the others' performance and reported it to Central Office. So that DA was, I think, checking on DAR, DAR was checking on Transportation, and Transportation was checking on us, at the field level. So the criticisms, difficulties and comments were elevated to the Secretary for the Secretary to bring to our attention. And that monitoring activity was done until late last year. We are now trying to establish closer linkages with the new Secretary in order to have a continuation of such close coordination. Now that there is a different clustering -- I think the clustering now is the agro- industrial development -- the DA, DENR and DAR have agreed to meet continuously and regularly under the rural development sub- cluster, precisely to avoid the difficulties that are almost natural in the mandates given to each other.

On the planning of programs, the mechanism that has been used to avoid big problems, especially when there are objections from the other departments, is in the CAS, because

which we started in 1986, is actually composed of Undersecretaries from all departments, meeting regularly every week - more regularly than the Cabinet as a matter of fact - where all these issues are discussed, where all plans are presented, and initial reactions are taken from the Undersecretaries. The Undersecretaries are then expected to bring it up to the staff meeting or to the Secretary himself. This has not, of course, been faultless. There had been some instances when plans and programs have reached a certain level without objection on the part of the other departments, only to find out during the presentation at the Cabinet level that there could be such difficulties. And our own experience in the environmental sector is that once we air our objection or comment or observation on a particular project, that matter is reconsidered right away. One of the bigger projects that we had to object to was a rather long road, very expensive road in Davao, where the road would cut through a virgin forest. I think the planning of that project was done prior to 1986. So it did not pass through any of the CAS or other mechanisms. But when it was about to be implemented, we objected, and I understand that the decision was really to make another plan. This was of course due likewise to the cooperation of the funding institutions which were notified that there were some environmental and ecological difficulties that would result from the building of that road. Likewise, they said that they would have reservations about continuing that project without first attending to the ecological problems.

Undersecretary Roque is the one who attends CAS and might give you operational illustrations.

Undersecretary Roque (DENR): Regarding the issue on overlaps, say with agriculture, and in fisheries, the delineation of authority between the DENR and DA is quite clear. Our jurisdiction over fishing areas cover only those territories proclaimed as national parks and marine sanctuaries. And as of now, there is only one national marine park and one marine sanctuary. And also, we covered the issue of endangered species whether its on land or in the sea. The overlap on upland agriculture is I think being addressed by our new design of ISF which will be presented later today. So I think all these questions and overlaps, besides those mentioned by the Secretary at the upper level, is also resolved in the Regional Development Councils (RDC).

On the issue of environmental oversight regarding development projects, I wish to inform you that since 1978, we have a law requiring the preparation of Environmental Impact Assessment (EIA) in all development projects that are considered ecologically critical. Also, sometime in 1988, the then Secretary Winnie Monsod of NEDA issued a memorandum to all officials of NEDA, including the regional officials, that this law should be observed strictly. Furthermore, I think most of the donor agencies have their own environmental guidelines.

Sec. Factoran (DENR): Follow-up question?

Mr. McDonald (CEC): Perhaps I can go back briefly. It wasn't the environmental oversight aspect I was concerned with, but rather the environmental input in planning. Roads is perhaps a bad example because there are oversight problems there you can deal with, but there are other projects where we need more of a central environmental role in planning the whole nature of the project. That's what I was interested in.

Usec Roque (DENR): In PD 1586, which is the Fundamental Law in environmental assessment, there are two ways of going about the preparation of EIA. The first one is precisely what you mentioned. If it is included initially in the planning of a project, then a formal EIA is not required. And there have been projects that have utilized this

approach. We are now using it, for instance, in the development projects around the El Nido area where the entire area will be planned as a sub-plan of the strategic environmental plan of Palawan. And I can mention other projects of that sort. The Coastal Reclamation Project in Metro Manila underwent the same process where environment considerations were already included in the initial stages of planning.

Mr. Ganguli (ADB): Mr. Chairman, I have a small question to ask you. I have been reading the newspaper and there is a strong group of NGOs in this country which feel that the environment should be delinked from the DENR and put at a very high level place, probably under the Office of the President (OP). In fact I have read letters to the editor in these many newspapers. I would like to have your own perception on the matter and whether the government has a view on this.

Sec. Factoran (DENR): Well, the government's view is expressed in the reorganization moves in 1987. My own personal view is that there had been many agencies on environment that were attached to the OF earlier. And the difficulty that they met, by experience, is that although they had very strong advocacy mandate, they really had hardly any tool to implement the changes that they wanted to implement. As a matter of fact, in the Asean meetings of the Ministers of environment, we invariably discussed the respective mandates we have been given. In Indonesia, for example, environment was coupled with population. I think in Malaysia, it was with Science and Technology; in Brunei, it was with Economic Planning. And after we described the kind of mandate and powers and authorities that we had, the other Ministers made mention that each of their functions would have been a lot easier to perform with such mandate. Because the mandate that we have are basically on three items: one is clout over the forestry industry, second is clout over the mining industry - these are the traditional despoilers of environment - and the third is our role in land use planning. Basically, I believe that should there be a divorce of the Natural Resources Department with the Environment Department, what would happen is that the Environment will be trying to do the very same things that we're trying to do now except that they would not have the wherewithal to do it.

Sec. Factoran (DENR): Yes, Sir. Mr. Tom Wiens.

Mr. Tom Wiens (WB): The presentation for this showed that the government's budget for the DENR has increased in the last few years. We also heard, at the same time, that the salaries of government employees have increased. The issue really is how much of a real increase, in terms of numbers of staff who can now be committed and material resources available to the Department, has occurred to these budget increases.

Sec. Factoran (DENR): The number of staff has not increased all that much. The increase is actually in the amounts of money being paid to the responsible officials so that the increase in the salary of the CENRO and the PENRO people with discretion to give licenses and permits, have been very significant - as a matter of fact, a little too significant when it all started, from our point of view. But on the whole, we felt that since we are going to increase the approval limits, ... the approval ceilings of these responsible officials, the chances of corruption at that level would be minimized substantially should they be properly compensated. So, almost all of the amount in the increase of the budget has been given in terms of increases in salary. As a matter of fact, in matters of casuals and contractuels, we suffered a diminution in terms of absolute numbers. And emphasis really is to try to train the present staff rather than increase numbers.

Sec. Factoran (DENR): Yes, Sir.

Mr. MacDonnell (CIDA): I just wanted to go back to a point which you had raised in your opening remarks. And following up from the representative from the European Community in terms of ensuring that environmental considerations are incorporated from the outset in development planning, I was wondering if you could provide a little more on the proposed environment oversight mechanism which you and Usec Diokno had mentioned. Because I think it is not simply a question of ensuring that EIAs or statements are done solely for donor-funded projects but are integrated throughout the development planning process, from the local level way up to the national level.

Sec. Factoran (DENR): The environmental oversight mechanism that's being proposed has been accepted by the Government as a whole, especially in the Cabinet. But we had to soft-pedal this thing a little. Environmental considerations should be part of the planning process. Now, just how early in the planning process it should be input is the question that is now being discussed. Our own bias is towards giving inputs to their own planning staff and making available a group of experts and consultants from our bureaucracy that could easily input whatever environmental considerations should be taken into account for any particular project plan.

I don't know how far the environmental oversight mechanism has been discussed in CERIAS. Celso would you like to share that with us?

Usec Roque (DENR): At this point, we only had some initial discussions concerning this mechanism. But I think you would recognize that most of our urgent proposals concern the immediate training of people in environmental planning. I think CIDA is already supporting a project with U.P. Los Banos, and one of our earliest requests with AID is the immediate training of people in this area. The mechanism will not be completely useful unless there are people behind this mechanism.

Sec. Factoran (DENR): But, of course, when we presented the PSSD to the Cabinet, and likewise to the CAS, they were modified. There was already an acceptance of the basic environmental considerations. Probably, what would be needed even more is to train these planning officers in various departments to make certain that we have an environmental watchdog in every implementing agency (IA).

Mr. Butler (USAID): Following up a little bit on Norman's question, a CIDA colleague: has DENR become a member of CCPAP?

Sec. Factoran (DENR): Yes, we were inducted to the Body last week. Thank you for your efforts.

Mr. Yagi (Japanese Embassy): Takeshi Yagi from the Japanese Embassy. This is about your definition of environment and natural resources sector. You said that as much as 83 percent of the public investment in that sector has been allocated to DENR. What concrete areas are included in your environmental and natural resources sector? For example, flood control over garbage transfer stations or sewerage treatment - are they included in the environment and natural resources sector in your definition? And is your definition an established definition or within the Philippine government?

Sec. Factoran (DENR): Harry.

Mr. Pasirnio (NEDA): Well, briefly, the answer to the question is "yes." Garbage and waste disposal, water sanitation/sewerage and flood control activities are included in this definition.

Sec. Factoran (DENR): I think there might have been a little confusion. The statement earlier was that the 80 percent or 81 percent that was mentioned is ODA funds on environment and given to other government agencies rather than to the Department. Yes, Mr. Van Leeuwen.

Mr. Leeuwen (Netherlands): Mr. Chairman, first of all, I am most impressed by the presentation today and we have been witness to the fact that from an organizational and institutional point of view, everything is in place. We welcome very much that you have brought up the issue of inclusion of the environmental issue in all development projects. I remember very well that this point was brought up during the last CCPAP meeting in October. Also you have enhanced cooperation with the NGO's in the environmental field.

I have two policy questions actually. What policy will be developed to try to address the problem of the ones who are responsible for depleting the resources. I am thinking of law enforcement. I'm thinking of the concrete problems of illegal logging, and of course, also of the ones in the uplands who are the ones responsible for the depletion. Second, you mentioned then that we welcome very much the relation between population and environment. You even mentioned during the presentation the fact that there should be an expansion of family planning and family planning programs. Since that is of course a cause of the environmental depletion at present, please elaborate a little bit more on this issue. Thank you.

Sec. Factoran (DENR): Thank you very much. Well, philosophically, what do we do with the despoilers of environment? An easy answer is to penalize them. But, realistically, the despoilers of the environment in large scale, especially of the forests of long ago, are most probably not there anymore, meaning, they are not engaged in the same business anymore. They've gotten rich, they've transferred their money elsewhere, or have gotten political powers some way or another.

When I first joined the Department, I looked at the profile of those still involved in the industry and except for a very few, they were not the original loggers. And these handful cannot be considered the despoilers of environment because they are precisely still there because they entered into a sustainable form of production. So that when there have been three or four changes of ownership in the corporation, even if it's clear that that corporation was engaged in very pernicious practices in forestry five, ten years ago, the only moral thing to do now is really to close them down, stop it. But there is no way by which we could still - especially since the evidence is no longer available - proceed against these individuals, prosecute them, and send them to jail. Now, as to the current despoilers of the environment, - there are two basic ones in the forest, the illegal loggers and kaingeros. We try to hit illegal loggers as fast and as firmly as we could, anywhere. We hit them at the forests where they are cutting but this has been very difficult. We hit them while they are hauling the illegal logs, even impound and confiscate their vehicle. We wait for them in the sawmills where they sell logs and close down sawmills which buy illegal logs. We have stopped the exportation of lumber. We're trying to hit them where it hurts most-in the pocket. We try to take away all the profit in illegal logging. And we have likewise filed many, many cases against illegal loggers, big illegal loggers. But insofar as the kaingeros are concerned - people who go up to the uplands because they don't have anywhere else to go; who try

to burn a little area of the forest in order to cultivate - our own policy really is there is no way by which public good will be served by bringing them to jail. Although as a group, the effect of the Kaingin is really scientifically proven to be very significant, very considerable - the only thing that we could do is to try to provide them alternative means of livelihood. And we do not, as a matter of policy, prosecute. The difficulty likewise with catching the big loggers, or the people who profit mightily from illegal logging, is that they do not cut the trees themselves. They do not haul the trees themselves. Rather, they give money to small farmers and even if you are able to catch them in the forest, you probably will be catching only the small farmers who are said to cut these down, it to the traders. So, we try to hit the traders most. But should there be any ideal situation where we could find, thru the help of the BIR for example, forest-based companies profiting beyond what is reasonable will be prosecuted.

On population, the emphasis of our Department and that of the DA and DAR is really to concentrate and try to encourage the population programs of government because there is a clear understanding that none of the work we're doing would have any long-term effect should the population keep on growing. As far as our Department is concerned, we're launching several population programs but these are basically on the education and information campaign. And then, we expect to allow ... to pave the way for non-governmental organizations to join us in the uplands, to do the direct clinical services or contraceptive facilities or alternative population planning instruments to our clients. But our Department itself will not engage in that kind of activity. We will just go into the information/education component and then allow the NGOs to come in and serve the clientele.

I hope that answers some of your questions.

OPEN FORUM ON THE NATIONAL FORESTATION PROGRAM

Mr. Lohani (ADB): Thank you Mr. Chairman. On behalf of the Bank management and the six-member delegation attending this meeting, let me first express our sincere appreciation to DENR for inviting the Bank to participate in this consultative meeting on environment and natural resources, one of the topics which the Chairman of the Bank places very high importance in its operations. The Chairman of the Bank is also pleased to have been invited to provide reaction on the National Forestation Program. The Bank's reaction will dwell upon its experience in working with the Government on the on-going forestry sector program, and the Bank is pleased to have shared this today with the other donor members represented in the meeting. At this stage, Mr. Chairman, I would like to ask Dr. Barin Ganguli, who is the Bank's Senior Forester and the focal point of the Bank Forestry Program, to provide our reaction. Thank you Mr. Chairman.

Sec. Factoran (DENR): Thank you, Mr. Lohani. Mr. Ganguli, please.

Mr. Ganguli (ADB): Three years ago, the Department of Environment and Natural Resources reorganized itself to implement a bold and a pioneering program on national forestation. The forestry sector in the Philippines had received a serious setback, therefore, an innovative and time-bound program was required to decelerate the rapid destruction and denudation of forest and reconstruction of the environment of the Philippines. Few believed, at that time, in DENR's capacity to implement the program. DENR approached our Bank for financial assistance and moral support to help implement the program. The program had inherent risks. It required confidence in the capacity of the DENR to implement. Above all, it required a complete commitment from the highest level of the Government.

Mr. Chairman and Sec. Factoran, we are very pleased to note today that our leap in faith and confidence in the DENR to implement the forestation program have been fulfilled under your very dynamic leadership. Program of this type which is sizeable, pioneering, innovative and bold, a challenge we shared still meeting together. The program of this nature do also encounter problems requiring close monitoring in which we are both intimately involved.

The Bank has reviewed the progress of implementation of various activities under the program. Overall, our assessment is that the program is progressing satisfactorily. So far, DENR has complied with all the provisions specified in our loan agreement. On the policy and institutional reforms aspects guidelines have been issued, committees and task force as required under the loan agreement have been set up, and administrative reorganizations were undertaken. The policy changes have expanded the entrepreneurial base of reforestation activities in this country and we are very pleased about it. For field activities, the accomplishments have been very impressive: 150,542 ha of forestation during 1988 and January - September 1989 against a target of 133,600 ha as scheduled for completion prior to the release of the tranche. However, the conditionality for the release of the second tranche of the loan required completion of specific targets for certain components, namely, forestation program by Government - 55,000 ha, forestation programs by private sector - 16,600 ha, watershed rehabilitation - 10,000 ha, Integrated Social Forestry Program - 36,000 ha, and timberstand improvement - 16,000 ha.

To date, it is noted that further progress will be required for forestation by government agencies other than DENR. Watershed rehabilitation and timberstand improvement, a combined area of 38,400 ha, is yet to be forested by mid-1990 under these combined categories. The Bank's views on these activities had been discussed with the DENR. We are pleased that the DENR has assured us that all the requirements for the release of the second tranche will be met by June-July, 1990. Further, some qualitative improvements in the forestation program needs to be carried out. These are species diversity, nursery management, out-planting techniques and standardization of performance monitoring. The Forestry Lease Management Agreements for subsequent management of these plantations also needs to be implemented. Considering DENR's performance during the past 15 months of the program implementation, the Bank considers the DENR would be able to achieve the expected targets by July 1990. The Bank, however, will very closely work with the DENR staff on all program implementation matters on a sustained basis, as well as close monitoring of programs. A Bank Special Review Mission will be fielded in July-August 1990 to visit all administrative regions of the country to record and review progress on all aspects of the Forestry Program before the release of the 2nd tranche of the loans. The Bank also sees further room for future undertaking in the forestation as presented by DENR today, and have included a second Forestry Program Loan for 1992. The exact timing of processing of this loan will be decided with mutual consultation. Furthermore, we are discussing with the DENR the possible financing of an industrial plantation project and a mangrove reforestation project scheduled for 1991 and 1990.

We would like to congratulate you, Mr. Secretary, for currently undertaking the Master Plan for the forestry sector financed by the Bank and FINNIDA. The Master Plan will provide the framework for the long-term development of the forestry sector to which you have dedicated yourself. The DENR is also simultaneously implementing some of the plans as formulated in the Master Plan. The implementation of the sustainable forest management plan to conserve and develop the natural forests of the Philippines will go a long way in the conservation and management of bio-diversity in the Philippines. DENR needs to be commended for this effort. The Bank has been appreciative of the high degree of consultation and coordination made possible by the donor's community and would request the DENR to ensure such consultation and coordination during implementation of the Master Plan. Whereas, the Bank has been involved in the sector on a program frame, when the Master Plan is completed, it will provide an opportunity to various donors to get involved in specific projects. The Bank, Mr. Chairman, has formulated a new Forestry Sector Policy Paper which, among others, has identified protection of tropical forest ecosystem and conservation of biological diversity as an important area of concentration. The Bank, through the Master Plan, has helped in the preparation of a comprehensive protected areas management and wildlife conservation report. The Bank would like to play a lead role in this area in the Philippines, in line with our involvement in the national forestation program.

The Bank is very happy to note of the remarkable progress made so far by your Department and your staff, and very pleased that it is contributing in a very modest way in the rebuilding of the Philippine forestry and the reconstruction of its environment. Further, the Bank considers it a privilege to have been identified as one of the working partners of DENR in this effort, and will continue to be with DENR as it implements the environmental investment agenda and the policy reform initiatives. Thank you very much.

Sec. Factoran (DENR): Thank you very much for your kind comments and the very incisive observations, Mr. Ganguli. May I likewise request Mr. Hiroshi Tanaka, OECF Representative, who is also another cooperator in this big effort.

Mr. Tanaka (OECF): Thank you, Mr. Chairman. I would like to make some comments on this program as a co-financier. We recognize the importance of this program as one of the environment projects financed by OECF in line with our efforts to strengthen assistance to environmental improvement in the developing countries. As for the project, although some of the components of the program are behind schedule, we are, however, satisfied with the overall progress of this program. And we hope that completion will be further improved in the near future. Thank you very much.

Sec. Factoran (DENR): Thank you very much, Mr. Tanaka. The floor is now open for any other comments, questions, suggestions. Mr. Wiens

Mr. Wiens (WB): A brief one. We understand that the reforestation today has been carried out basically under a 3-year contract scheme. I've heard in the last couple of weeks about new plans for giving the residents of reforested areas a stake in the maintenance and nurturation of those forests. I wonder if one of you can describe these plans.

Sec. Factoran (DENR): Yes. May I request Undersecretary Ramos of Field Operations and principal implementor of the National Forestation Program to respond.

Usec. Ramos (DENR): The guidelines for the forest wood-lot agreement is now in the Board, and with the final touches, we would be able to implement that this year, 1990. We are aware of the fact that when you examine the basic reason for success for any reforestation in the world, it boils down to one: that the trees planted should ultimately belong to those who have planted it. That is the only means by which the trees that have been planted would be maintained and protected. And that this should be done best by people who live close to the site. We are moving now with the final guidelines to implement this policy.

There will be transition stages. For instance, to encourage more social responsibility among our participants, we'll be encouraging some to plant cash crops like pigeon pea, for instance, which will provide income or food within eighteen months, enough incentive for farmers to go back to the sites where they've planted forest trees and continue to clean the space between the planted forest trees because they have an incentive from planting these cash crops. I think there will be more of such schemes to provide enough incentive for our farmers to take care of these trees. Thank you.

Sec. Factoran (DENR): Protection and Administration Contract is actually now under discussion. And we are in close consultation with the funders of the program. And we do fully expect that before the second year is over, we shall come up with a very, very clear plan as to how, what terms and conditions there would be in granting this protection contract.

Anybody else? Yes, sir.

Mr. McDonald (CEC): Mr. Chairman, I was to ask about maintenance myself. What harvesting arrangements do you envision in fifteen, twenty, thirty years time?

Sec. Factoran (DENR): My feeling and that of the team is that the era of commercial logging should be over soon. And that any production of forests should be done directly by the farmers living within or around the area. This does not mean that processing will be done by the community itself. But our experience is that the trickle-down effect does not work all that well. And that insofar as natural resources is concerned, what we would like to do is force the benefit down to the farmers, right away. In the long-term, we would be looking at the proliferation of community forestry projects whereby the community will be the one to cut down the trees and sell them for processing. There should be, however, five or six or even ten excellent processors--excellent loggers who would be able to enter into some form of agreement with the community after the profit-sharing in order that the sophistication of the trade and the industry will always be there, so that the state of the art will always be available.

But in the transition period, the only reason why we are still allowing right now about 80 TLA holders to exist (and which we have promised to cut down to 50 by the end of this year) is because they are the best protectors of the forest so far. But within this year and last year, we have been going into social organizing to teach the community how to protect the forest and what benefits are innate of them. The initial difficulty met by Government was that there was hardly any credibility because for a very, very long time, the communities protecting the forests do not get to own the trees but are given to some big company or another. We are trying to recover that credibility. But we are setting in motion new enactments, measures and policies that would make permanent this vision of the community perusing it. And the best way to make this permanent is to build a constituency that would fight for this whoever is in the political helm of Government.

OPEN FORUM ON THE INTEGRATED SOCIAL FORESTRY PROGRAM (ISF)

Sec. Factoran (DENR): There are two very significant experiments in the ISF sector and these are: the Rainfed Resources Development from AID; and the Central Visayas (CVRP) from the World Bank. May I request reaction from AID, and then perhaps thereafter, World Bank.

Mr. Butler (USAID): Thank you very much Mr. Secretary I appreciate your kind comments. AID is proud to have had some small role in working with DENR in the piloting of these obviously very successful series of activities.

On the question of ISF, I think that we applaud the way that DENR has assimilated the lessons of the two earlier projects that we have been able to work together with the WB. It's clear that you are basing your future plans on field experience - always something that those of us who work in the field, I think, have to remind ourselves and our own headquarters about the a very obvious effort to build on what has been learned in the field. It's also obvious that DENR is focusing on its role as a development agency as it pursues these objectives rather than a regulatory agency. The difference for me being an important one is having the cooperation and the will of the people behind the efforts. You're truly involving the communities. You're very clearly focusing on the social economic dimensions of these activities which are forestry activities to be sure, but also very much socio-economic activities as well. The issue of tenure is something that is being addressed. We see this as something which all of us in the donor and the Philippine community will continue to wrestle with. Another important thing we see in this is that DENR assumes the role as a guide, not necessarily as an implementor where everything has to be done, but as a framer of the direction of activities - working closely in this case with DA and DPWH; working very carefully and very thoroughly with the NGOs.

I think I do have one comment - that there has been a very strong focus on input and the input requirements. Without the input requirements, there is nothing to measure. On the other hand, the input requirements can only be justified as the results are measured. And so I'm sure that as you focus on inputs you'll also be focusing on outputs - on the measurement of the outputs; on lessons to be learned; on creating feedback loops which are so important to a successful development activity.

There are also some cross-cutting things which I am sure we'll see being addressed in these two (2) days. One is tenure which I just referred to. It seems like it stretches across all the areas of activity that we are talking about. Community participation is critical not only to the ISF but in my mind, to just about everything that is on the table in these two (2) days. And in community participation, I would mean not only the residents of the communities involved but also the NGOs because they represent the communities, sometimes broader communities, national communities. But I think that they can play a critical role and I know that you agree on that.

One issue which we haven't talked much about yet but which, I think we in AIDC - is critical, is the issue on enforcement. DENR used to be a development agency, not police agency, but the success or failure of these programs nonetheless involves being able to ensure some measure of enforcement, if not, thru DENR itself, in terms of coordination among other agencies that assist in this coordinated effort.

In closing, we are in the process now of finishing the initial design of a rather large program which will address the issues of conservation of the remaining natural hardwood forests, and protection and the rational exploitation of the buffer zones as secondary areas around these forests. And this is going to be a monumental undertaking which will involve public and private sector activities. Important roles for policy development and environmental assessment reach broadly into other areas including opportunities for debt swaps which we hope you will continue to push within your own government as we will. But I guess the reason I really want to put this on the table at this point is that we are finding that this effort is a larger effort than AID alone can take on. And it will be another area, like ISF, where we hope that those with deeper pockets than ours will join us, even though we will be making a very substantial contribution of our PAP resources to this effort. And as soon as we have documents which we are able to get around to other people, we certainly will be doing that. Mr. Secretary, thank you for allowing me to run over a little bit. I appreciate the time. Thank you for the opportunity.

Sec. Factoran (DENR): Thank you very much for the commercial, too. We appreciate it. Mr. Wiens.

Mr. Wiens (WB): Thank you Mr. Chairman. I like to confine my own remark on the social forestry issue. I'd like certainly to second some of the suggestions that Mr. Butler has made concerning that program. I'd like to congratulate DENR for the changes that we have seen take place in this area since the early '80s when we were first involved with it. I really think that in no area of DENR's responsibility have we seen such a rapid transformation of attitudes as in the ISF Program. And I'm happy to say that insofar as the basic intentions and organization of this program are concerned, most of the criticisms, some very severe, raised in our earlier FFARM study are already past history. I'd like to convey a sense of how far DENR has come in this respect.

First of all, two years ago, there was a reluctance to accept the existence of a large population in forest land; and there's an equal reluctance to accept that they were there to stay and that dealing with them in a constructive developmental fashion was crucial to DENR's objectives of promoting sound natural resource management and preventing resource degradation. The ISF program of two years ago can be described as one of distributing a limited tenure vehicle, a Certificate of Stewardship Contract and in getting the recipients to plant a few fruit trees. The ISF program at that time was a minor thrust of the Department, with little institutional prominence and serious organizational weaknesses.

Today, in contrast, as we referred in this presentation, DENR accepts that there are 8 million people who probably reside on forest land. The ISF program, as DENR's main instrument for dealing with them, has been given new prominence and autonomy. Indeed, it's at the top of priorities for 1990. This is partly a fall-out of benefit of the CARP program which has provided much of the funding for this effort. But it is accepted now that the stewardship contract itself should be strengthened as a tenure vehicle so that renewability, heritability, bankability and limited transferability are terms which could in the future be a part of that contract. It's now recognized that community development is the major purpose of the ISF. New guidelines for the Program are being finalized, influenced by the upland development programs of the past such as pilots financed by USAID, Ford Foundation and the WB. Under CARP, there is now an interagency agreement which delineates the respective roles and cooperation of the various agencies in upland development for DENR, DA, DAR, etc., roles which are very important, very appropriate for each agency. DENR field staff in

the ISF Program have been given training by NGOs in community organization and livelihood development. On this basis, a new, much more comprehensive ISF program is to be piloted in every province in 1990. I think this is a very impressive record of transformation of the agency in the last two (2) years.

Mr. Chairman, the WB has been involved with the ISF since its beginnings in the early 1980's thru our Central Visayas Regional Project. We are pleased with the government's intention to expand the thrust of this Program. We intend, thru the public investment component of the proposed environment and natural resource management SECAL, to support the expansion of the program. Thank you sir.

Sec. Factoran (DENR): Thank you very much. The transformation mentioned were much due to the persuasive abilities of the WB and the USAID consultants that have been involved with us thru all these years. Are there any comments and questions that you would like to have, gentlemen? Yes, Sir.

Mr. Ahuja (WFP): Thank you, Mr. Secretary. I would like to make a brief introduction in behalf of the WFP.

The WFP recently approved a project for the Negros Occidental which is a significant component of the ISF. In addition, we may approve of a related project in 2 provinces already with technical support available under a UNDP-FAO project. This would be one in Luzon area and one in Mindanao. These projects would include components of training of a large number of people who are staying in the forest areas, plus a number of nurseries to be established, something like 8 m seedlings. We have program for development of over 20,000 hectares of upland farms in agro- forestry. There is the provision for reconstruction of water- impounding structures and construction of 1,400 km of forest trails. We treat this as a kind of a pilot effort over the next few years. There is no reason why it should not be possible given the interest of the government in expanding these programs to other areas.

Apart from the social forestry projects, soil conservation, watershed management and reforestation are subjects which are very close to WFP headquarters. They would like to promote as much of environmental improvement as possible, keeping in mind the labor-intensive nature of many of these activities.

We would also like to work with NGOs. There has been a policy re reorientation recently and we intend to write to the government on that subject. Thank you very much.

Sec. Factoran (DENR): Thank you very much. We need the kind of interventions by local and international NGOs in order to help us accomplish much more. Thank you Mr. Ahuja.

OPEN FORUM ON THE INTEGRATED PROTECTED AREAS SYSTEM (IPAS)

Sec. Factoran (DENR): May we request reaction on the Paper from the World Bank. Mr. Rees.

Mr. Rees (WB): Mr. Chairman, ladies and gentlemen. Seeing this presentation and Document 7 for circulation have provided an accurate portrait of the status of the national system of parks and other reserves, a useful description of current activities, and a pragmatic assessment of future needs. It is, in parallel, gratifying to observe that DENR regards the development of IPAS as one of its highest priorities. The conservation of biological diversity is a major objective of the World Bank's FFARM, and proposed SECAL for natural resources management. It is also clearly a great concern to the many donors, as acknowledged at this Meeting and in other fora in this country and around the world. Nonetheless, we may perhaps observe that compelling through this agenda is, there is still a need for donors, perhaps, to feel a sense of security about investment in the development of an Integrated Protected Areas System. Thus, it is accepted by the government that a process must be initiated that includes planning of design, both in terms of the biological and social dimensions; training at central and provincial levels; and enactment of appropriate legislation. In view of its complexity, this process will require a period slightly longer than that envisioned in Table 1 of Document 7.

In recognition of these imperatives, we are pleased to announce that a Technical Assistance (TA) grant to the Philippines by the government of Japan thru the World Bank, will allow this process to be initiated within the next month or so. The terms of reference for this TA include the design of an IPAS, management and planning for some ten major parks and reserves, training of DENR staff and, perhaps, very importantly, the formulation of a buffer zone concept involving local communities. The design, it would appear, is best based on the biodiversity requirements to reflect the major biogeographic zones of this country -- what is referred to as, perhaps, Dir. Ganapin a moment ago - that they have adequate area coverage and cohesion; that there is an ability to protect conservation areas; and that they might, perhaps, have touristic value to generate income for management of the conservation areas. Now, while the TA does address a great number of needs, it does not fund budgetting requirements for staff expansion nor for supporting infrastructure. There are, therefore, opportunities for other donors to join the World Bank as co-financiers or, indeed, to develop their own program consistent with the IPAS design.

Lastly, Mr. Chairman, since integration should be paramount by acknowledging the very content of an IPAS, it is certainly appropriate to require close coordination particularly to maintain coherence and to prevent duplication of effort. Thank you, Mr. Chairman.

Sec. Factoran (DENR): Thank you very much, Mr. Rees. May I now invite comments or questions from the other distinguished participants on this presentation. Mr. Bunting.

Mr. Bunting (WWF): Thank you Mr. Chairman. The IPAS Project, which I have been familiar for some time now, has gone thru several preliminary stages of development and it is really a wonderful situation that the World Bank now has stepped in with this TA, perhaps, to see that it is carried through. I think it is a good example where coordination has taken place because we've been in close contact with the World Bank

during the development of the IPAS review project, and it fits in very well with what the Department of Environment and HARIBON are doing in the Debt-Swap Program. And that you are already able to implement several important reserves within the Philippines, and initiate training and other things that will be incorporated in the IPAS. I think this is an example where there is good coordination and infrastructure is getting developed, and a certain degree of implementation is taking place already. So, I guess it shows how well the DENR is coordinating donor support.

Sec. Factoran (DENR): Thank you very much. That was of course Mr. Bruce Bunting of the WWF, the provider of the first Debt-for-Nature Swap experiment in the Philippines. Other comments, please. Mr. Ganguli.

Mr. Ganguli (ADB): Mr. Chairman, I wanted some clarification from the Chair with respect to the perception of the Government of the donors' involvement in this very important area. Our friend from the USAID said they are going to develop a program. The World Bank is very much involved in this. And we have been given a mandate by our management to be involved in the biodiversity area. In fact, we have a TA allocated for the Philippines for this. From the viewpoint of our planning where we have identified two broad areas namely biodiversity area and the protected area management system, how do you view the donors in terms of these two broad areas in the IPAS.

Usec. Roque (DENR): You must have noticed from the presentation of Dr. Ganapin that at least we had some sixty or more areas to work in. The funding gap -- we're actually doing things on the ground for these areas -- could be very large and, therefore, there are vast opportunities for other donors to come in on other areas that have not been developed yet. In fact, we have welcomed the ADB project on biodiversity and we intend to cooperate fully in that project.

OPEN FORUM ON THE IEC AND POPULATION

Sec. Factoran (DENR): We are proud of our accomplishments in having interacted with as many tribal communities and establishing the NGO linkages with minimal funding outside of our regular budget. We shall now open the table for questions/comments on both papers presented. Would anybody care to start? Yes
ADB

ADB: Thank you, Mr. Chairman. I would like to know whether there is an assessment made on the impact of the population program and whether there are any special elements in the population program which are implemented in the ISFP areas as well as in the coastal areas where fishermen and population are concentrated.

Sec. Factoran (DENR): Thank you. I will give your first question to Dr. Garcia.

Dr. Garcia (POPCOM): As far as the implementation of the Family Planning Program is concerned, I've just presented the achievement of the Population Program from 1963 to 1988. The parameters that we used in assessing the achievement of the implementation of the Population Program is along the area of population growth rate, total fertility rate and contraceptive prevalence. Now, in terms of the delivery of family planning services, this was carried out both by the government through the DOH and NGOs.

ADB: Is it too soon to assess the impact of the program?

Dr. Garcia (POPCOM): The total fertility rate is declining but it is very moderate. Likewise, contraceptive use is increasing. If you will further study the prevalence rate, it is more on the area of the less effective method to the more effective method. Now, in the delivery of services, there is a need to expand program coverage. There are lots of areas unserved and underserved.

Sec. Factoran (DENR): Well, as to the impact of the Department of Health as the lead agency, I do believe it might be a little too early to make any significant assessment of what has happened so far. It's been relatively a short period of time. But we do expect that some assessment would be done within this year, shortly. Thank you.

As to the second question, I'll allow Undersecretary Ramos to respond.

Usec. Ramos (DENR): Our participation in the Population Program, particularly in ISF, is primarily in the area of IEC and also in the area of sourcing possible NGO support in setting up Population Program units in respective communities. Because IEC is relevant and meaningful only in two cases--where there is an improvement in the well-being of people through livelihood or improvement in health. That's why we look upon this as an opportunity in the ISF program to deliver this kind of message.

Sec. Factoran (DENR): There will be an assessment. There will be IEC and then an assessment by us whether or not the particular project area would be ready for a center, and then invite NGOs to make their presence felt. Jeannie ... Ms. Peterson of UNFPA.

Ms. Peterson (UNFPA): Thank you Mr. Secretary. I would like to offer my congratulations to the DENR for the excellent presentations. And especially with the way the Department has recognized the interrelationships between environment and

population, and environmental problems and population problems. It is, of course, a fact that the Philippines is in a situation of having major areas of concern both in the environmental areas and in the population area. But internationally, I know of no other country that has come so far in recognizing and identifying the way that environmental and population pressures are interrelated. Also, I would like to note that the DENR was, I believe, the lead agency in the rural development cluster at the Cabinet level which helped formulate a common approach among DA, DAR and DENR towards population issues. And I think this kind of conceptualization is extremely important. Also, the DENR has been among the first in the world to be able to conceptualize and actually to make concrete a project which incorporates both population and development areas for the uplands communities. We are very happy to be able to provide some funding in this area since our executing agency, FAO, sees this as a unique pilot project that may bode well for the world as a whole.

There are other areas in the Philippines and elsewhere, of course, that could be considered in the area of population and environmental problems. If I might just mention a couple of them. The identification of areas that are both environmentally fragile and under specific population pressure could be very helpful in identification of project sites for population and environmental inputs. Studies of carrying capacity, which have been attempted for decades now, have perhaps come further in the Philippines. Again, I know of no other country in which studies, the one on Palawan as an example, have come as far as they have here. In fact, looking at any environmentally-oriented project that concerns communities, families or just people as beneficiaries, it is difficult to see how such a project could really be considered very complete without also a population component, unless of course, there is the opportunity to integrate, as the DENR is doing, their efforts with the efforts of NGOs or other governmental departments.

And finally, I would just like to say that the UN Population Fund has just very recently issued guidelines for the funding of projects in the population and environment area and I imagine that our organization is going to be more interested in this juxtaposition of problematic areas in the future. Thank you.

Sec. Factoran (DENR): Thank you very much for your comment. Any other comments, please? Mr. Prussner of AID?

Mr. Prussner (USAID): Ken Prussner from USAID. I'd be interested on the viewpoint of Dr. Garcia on the relationship between population and the environment--either the total environment or the natural resource portion of the environment.

Dr. Garcia (POPCOM): Well, based on the project paper we received from the DENR it seems there is a population pressure in the uplands. The problem there is that with the population pressure basic health services in the upland areas deteriorate. But if we make the people aware of the need for basic health services, we can improve their well-being. Through social forestry workers trained in a comprehensive way in the delivery of services, there will be a demand for services. And this is where we, the DOH, make sure that the services that they demand are there.

Sec. Factoran (DENR): Thank you. May we offer additional comments considering that we've almost made a career on establishing such juxtapositions. And we invite Undersecretary Roque to make additional comments, please.

Usec Roque (DENR): Thank you, Mr. Chairman. I'd like to call your attention, Ken, to this document--the PSSD. There are graphs at the end of the document showing the undeniable correlation between population density and forest cover. If we interpret forest cover as a gross measure of environmental quality, then indeed this graph is an empirical evidence of such correlation. The next graph also shows the relationship or the correlation between population density and poverty incidence. These are in Figures 2 and 3 of the document. So, that is the reason why we are convinced that population and environmental policy are inherently related. I'd also like to call your attention to the Article of Secretary Factoran distributed earlier this morning on Population, Environment and the Philippine Future which elaborates on this observation of the relationship between environment and population density.

Sec. Factoran (DENR): Which ideology AID, I was earlier told, shares completely. Any other comments, please? questions? suggestions? This is proving to be a very tame meeting. We'll hold off the fireworks until tomorrow? Yes, Ken.

Mr. Prussner (USAID): I did not find in the IEC presentation proposed needs and anticipated request. Maybe there is another portion that didn't get put up on the screen. Could you elaborate on this issue?

Usec Roque (DENR): In the presentation on the investment package, the aggregate needs for funding of the IEC program will be presented.

Sec. Factoran (DENR): The other presentors were just too impatient. They gave off the bills right away. I think, tomorrow's presentation will give specifics as to how our experts and your technical experts have been costing these requirements in an investment package.

Usec Umali (DENR): Originally, Ken, it was there. But we were advised to just concentrate on the concepts because the amounts can be variable. But I think it is in the PSSD profile on our IEC needs. But we are only too willing to provide you with more details.

Sec. Factoran (DENR): We didn't want to scare you off for tomorrow. Anybody else, please? Yes, sir.

Mr. McDonald (CEC): I don't want to make it tame but I don't want to liven the discussion too much either.

I found it tremendously exciting to see how far in the Philippines progress has been made in bringing the NGOs into development; to hear particularly this afternoon the very specific progress which DENR has made and which I think certainly deserves our congratulations. I think this could serve as an example for other countries.

But a couple of practical questions in terms of how your relationships with NGOs are working out: first, sometimes it's perhaps too easy to say "Let's rely on the NGOs if we don't have the staff." I wonder if NGOs always have the personnel. Do you feel that there is sufficient NGO people around that you can recruit in as much as you want to? Or are there efforts that you must make to build up the NGOs as well, together with you? A related question is--how can you go about promoting, or do you need to promote, better links between the NGOs themselves and the grassroots organizations, whether they are tribal organizations or community organizations, or whatever form they might have? And lastly, sometimes it may be that whatever intentions you have

at the central level, your own people in the field might not be so comfortable in their working with NGOs, and they find themselves unable to bridge this gap. There are still suspicious of NGOs. How do you go about convincing your people in the field, at the provincial or the PENRO or the CENRO level, and how do you go about convincing these other government agencies, that this work with NGOs is something that is not only valuable but essential?

Sec. Factoran (DENR): That is one area that everybody wants to have an input. So I will start off.

As to the last question, that's absolutely correct. The first time we had this experiment, we were very new in the Department and the first thing we asked the REDs. was to give us a listing of the NGOs--of the significant NGOs in their areas. And the listing that came back were really outright funny: Tricycle Drivers Associations, and the Retired Nurses' Associations. But now we can start convincing. But earlier on, instead of convincing and persuading our people to work with them, we directed them to. We made it a key-result area. That we want, at least, one NGO. Until now there is that requirement, at least one NGO linkage per region. We started off per region. And we made it clear that the NGO linkage we wanted was not an NGO of recent vintage but something that had track record. Its now working out well so long as it's made clear to the NGOs that our objectives dovetaile. Even if they are critical to certain reactions of our people, they tend to give us a little elbow room before coming up with absolute criticisms. And, considering the kind of expertise that the NGOs have, at least the NGOs that were there when we came in, our people were the ones who really decided that it was helpful to work with them. There was an empirical base for saying that it was helpful, that it was useful. But this is not always the case. In the Butuan/Agusan Region and Region 2, we found it extremely difficult to get responsive NGOs to help us out. NGOs' reluctance to deal with other government agencies is understandable considering that most NGOs were established before February '86. These NGOs fought the old dictatorship and it is a very difficult transition from criticism to support. It cannot be done overnight. And I can tell you that out of experience because I was with the NGO before. With government having lost its credibility among NGOs, and with NGOs suffering a hangover from the dictatorship, the mutual suspicion is there. And it has been very difficult to divorce the old NGOs and the new ones. Instead of getting together, some additional distance was created, some space was created because of mutual distrust or dislike as you wish. It was clear government has to bend over backwards in order to regain the trust of the people. And I think in many instances such gesture was appreciated by the NGOs. In the environmental sector, a great number of NGOs were created/established at grassroots level. When we started, there were only very few NGOs we could depend upon. But, we've been here for three (3) years and we have more or less managed to at least neutralize the antagonism that was there before.

Now, as to the first question of whether or not there are enough people to field considering the extent and coverage of the mandate, no, there is not; there are not enough people now. If we want to have a constituency of NGOs to help us out, we should help them out first. And we're doing this in various ways. Among the ways we've been doing it is of course linking NGOs to foreign NGOs or to financing institutions and giving them the opportunity to work on rural concerns so as to provide them with the track record. Then, funders would at least be sympathetic to their cause whenever they submit a project proposal. But, I'm sure that Celso Roque who was with the NGO for a long time, would also have some inputs to this because this is a thing that is constantly discussed in the Department.

Usec Roque (DENR): I think even the Department had that apprehension regarding the capabilities of NGOs and the relationship between NGOs and Government. Maybe that's the reason why Secretary Factoran adopted the strategy of recruiting former leaders of the NGOs into his team. Delfin was formerly the President of the Philippine Federation of Environmental Concerns, an NGO grouping on the environment, and I was then the President of the HARIBON Foundation.

But regarding the question whether they have the capability, perhaps we could answer that by categorizing the answer with respect to capability. Regarding scientific or technical capability, some NGOs have access to the Academe because their origin was in fact from Academe. If you look at the HARIBON Foundation, they have a council of scientists from the Academe. And some of the leaders of the projects, for example, in the Debt-For-Nature Swap were actually recruited from U.P. and Siliman University. So that as far as capability is concerned, at least some of them have access to technical knowledge because some of the members come from the profession. With respect to other requirements, such as monitoring our environmental projects, or the reforestation projects or sitting in our policy discussions, I think almost anybody can do this. And they have enough members to represent them in some of our policy discussions. And in fact, if you look at our policy discussions, say in forestry, the NGOs are indeed well represented, not only in terms of quantity but in quality. They offer good arguments and very convincing arguments at that.

With respect to the attitude of our field personnel concerning NGOs, I don't think there is a general answer to this. In some areas, there are good cooperation. I could mention the HARIBON chapter in Cebu and our own regional office in Cebu. They have worked very closely in some of the projects. The HARIBON chapter again in Davao and our regional office in Davao are working very closely also. Of course, there are problem areas. Maybe, frankly in Palawan, maybe HARIBON does not see eye to eye with our office there. But we could iron that out in the near future.

Sec. Factoran (DENR): May I also request Vic Ramos to make statements specifically in connection with the field problems.

Usec Ramos (DENR): It really takes time for our field people who have been in the government service to imbibe this kind of attitude. But I think the consistency in our position has really turned them around. Let us take the case of Baguio. You know there was no strong NGO there before that would support us in our regreening program. So we set up the Baguio Regreening Program and invited the Monsignor there to be the Chairman. In the beginning we were supporting them with all the technical assistance. We took care of the seedlings. We took care of the monitoring. But as we saw keener interest among the leaders of the City to take part, we made sure that we have given them the frontline. So, our Regional Executive Director there used to be the Vice Chairman. He was actually running the show. But he gave that up to the Congressman. Now, you know, it's the strongest, to my mind, very strong environmental pressure group in Baguio. And it's one of the success stories when it comes to our reforestation program.

OPEN FORUM ON THE SUSTAINABLE FOREST RESOURCE MANAGEMENT

Usec. Roque (DENR): Thank you, Delfin. We would now like to invite comments regarding this Paper. And may we call on Tom Walsh.

Mr. Walsh (ADB): Thank you, Mr. Chairman. Delfin, you mentioned some interim financing which you said might possibly be needed. You had sufficient resources overall. I would be curious to know what kinds of financing you're talking about and what types of activities. Is this technical assistance you're talking about or stop-gap loans?

Dir. Ganapin (DENR): From preliminary discussions, I think we're looking for both. Because some of the needs would be for technical expertise and others would be for very important equipment. That should start, for example, the delineation of the permanent forest estate. You see, We're trying to convert our practice in logging from just using one system into really coming up with management plans specific or appropriate to the type of forest we have. And this would entail a lot of expertise, training as well as the necessary equipment. So, we're asking for both types of funding.

Mr. Walsh (ADB): What DENR investment program with these types of activities are identified here at this stage?

Dir. Ganapin (DENR): Well, you don't have it yet in your black book but we have all the plans and all the costings and we can provide anyone who would like to get a copy of those costings.

Usec. Roque (DENR): I would like to invite Undersecretary Umali to supplement that response.

Usec. Umali (DENR): Thank you, Mr. Chairman. The type of technical assistance that we are contemplating during the transition period is one that would see to it that activities are undertaken for the shift from logging in old-growth to residual forest. Thus, what is in the investment program are activities, first of all, to validate the conditions of the logged-over areas. And this would entail technical expertise as well as additional manpower resources. And then secondly, we need to study carefully, as mentioned by Dr. Ganapin, the type of silvicultural system that we will be using for the logged-over areas. Possibly, the Philippine selective logging type had to be modified or, in some instances, we have first to liquidate those that are in very bad condition. Otherwise, as commented earlier by the World Bank, we may not have sufficient supply if we all depend on the logged-over areas. While we are bringing it in a 25-year management regime and we expect that the supply of wood for this would be around 3.2 m³ because we have about 3 million ha of logged-over areas but most of these are outside of the 80 PLA that exist. About 1.7 million ha are outside. All of these have to be brought into a harvesting regime--not only those that are inside. So, what it entails is that we have to see to it that all of these are properly validated in the field. Along with this is the final demarcation of the final forest line. And this would entail cost in terms of monumenting and marking. So, these are the transition activities required.

Foreigner: Well, it maybe a bit premature but it's something I think we can take a look at with Dr. Ganapin. And perhaps in processing our own commercial forest plantations project or industrial forest plantations project, maybe it's something we can piggy back on earlier this year, maybe get started on this type of activity.

Usec. Roque (DENR): Ken Prussner.

Mr. Prussner (USAID): Thank you, Mr. Chairman. I was wondering if a little bit more light is shed by Undersecretary Umali concerning the anticipated wooden forest products needs. I fully appreciate the perceptions of not only the demands that the country may need but, as always, there is the perception of types and qualities and, therefore, what may be considered people will buy and use.

Usec. Roque (DENR): Go ahead, Ric.

Usec. Umali (DENR): Thank you Mr. Chairman. In connection with that, we have presented to you what is required during the transition phase. We have already announced several policies to support the shift towards selective logging in the logged-over areas. First of all, we have reduced the allowable cut and this is already integrated in the annual operations plan starting this year. And what we did was not really to change the overall silvicultural regime but change the set of data because most of the data inside concessions have been done a long time ago and we're now using the most updated--the result of our cooperation with the German Government. So we are using the RP-German data to fit into the old Forestry Administrative Order No. 74. With that, and counting the concessions that we have, the allowable cut has been reduced to about 3.6 million m³. Requirements in the past with the present population is such that we need about 2.8 m³ for the domestic market. And about 600,000 m³ of these come from plantations. What comes from the natural forest may not suffice for the requirements.

For the next ten years, if we follow the silviculture regime in the logged-over areas, there will be 3.2 m³ up to the 25-year cycle. And it's going up. Unfortunately, we failed to show that table. But at the end of the Master Plan period envisioned, the logged-over areas can produce 7.8 m³ which is now way above the requirements. Of course, the requirement will also increase to something like 6.7 to 6.8 m³ because of the population. So, in other words, there will be adequacy of supply for the present market and we're seeing to it that both high quality value-added wood are also sold locally.

And these are the moves that we have done in the transition period. We have also ordered to stop the logging on all areas that are above 50 percent in slope and there will be no high lead yarding. And there will be a one-to-one correspondence on deforested or cut areas compared to reforested. So, all of these now are transitional and are incorporated in the 1990 operations plan of all Timber License Agreement holders. Thank you, Mr. Chairman.

Usec. Roque (DENR): Tom, would you like to be involved in the discussions?

Mr. Walsh (ADB): Yes, I would. I have a few comments based on an earlier reading of Delfin's presentation which I think has been updated in some excellent ways.

First, on the Master Plan itself. Its core strategy on the one hand, is to preserve the remaining virgin forests, and on the other hand, to satisfy the Philippines' requirements for timber by shifting the emphasis of the cutting from the virgin forests to the residuals--the remaining logged-over forests. If the current estimates of the commercially extractable volume of timber which remains in the residual forests are correct--and this is a very big "if"--then, this is a viable approach and one which I think

is worthy of strong support. Now, our current understanding, however, is that the logging industry itself opposes this approach which is a little bit surprising if the volume of timber in the secondary forest is really there. It seems necessary to look into the reasons why the logging industry opposes this approach before we affirm that this is the main strategy for preservation, and, simultaneously, satisfying the needs of the industry.

Secondly, we're pleased to see an acceptance of the idea of using local and regional communities to manage the productive forests, and that these communities should benefit from the products of these forests. This clearly requires the DENR to quickly move beyond its present, mainly pilot approach to local forest management such as is being done in the CFL which now extends only to a few indigenous communities. It's equally worth noting that there is a convergence occurring among various programs in DENR, such as, ISF, CFL and the CR which have in the past been planned and implemented rather independently of each other and used in different areas or in different kinds of circumstances. It seems to me that because of the convergence of thinking, it's worthwhile to think a little bit more of the circumstances under which each of these different instruments is appropriate. For example, when should reforestation be supported by CFI as opposed to Contract Reforestation? What's the circumstances involved? Right now, CFLs are mostly used in indigenous communities in the uplands whereas CR is a broader tool. But there are probably situations where CFL can be used which do not involve indigenous communities and where it may be more effective than Contract Reforestation. But it, too, has its limits. Should ISF and Community Forestry be treated as isolated programs with different purposes, or should they somehow be integrated together and be thought of simply as instruments to be applied in different circumstances depending upon the nature of the communities involved? Well, these are, I think, strategic questions which deserve some more thought in the future inasmuch as the basic idea of community involvement in forestry and even community ownership of the forest and management of the forest are becoming part and parcel of all of the programs within DENR.

The third, we're pleased to see recognition of the need for increased forest charges to a more reasonable level. It requires an active Congress to accomplish this insofar as the existing concessions are concerned. The international community is going to be watching the process of congressional action with great concern. I don't know if our congressional representatives are here but this is a message which we'd like to direct to them.

Finally, this is the only presentation which has mentioned the problem of enforcement of laws and regulations, and specifically the ending of illegal logging and wanton destruction of the forest. Now it's an unfortunate lacuna, perhaps, that there has been so little attention given to this in other presentations, nor is there much attention given unto it in the PSSD and its action plan. There needs to be more discussion of how this rather rapid phenomenon can be brought under control. Moreover, until it can be brought under control, until we can count on enforcement of regulations, experience today indicates that logging bans are going to be unenforceable: that whole notion of sustainable forest management remains merely a dream. I hate to put it in such negative terms but I think we need to think about the importance of strategies and action plans for enforcement as an integral part of this resource management problem. Thank you.

Usec. Roque (DENR): I'll ask Ric Umali and then Delfin Ganapin and, perhaps, Ebert Bautista to respond to the issues raised by Tom Wiens if we have any response at this time. Some of these questions are quite profound and I think it will take time for us to sort it out.

Usec. Umali (DENR): Thank you, Mr. Chairman. With regard to the first issue, while it is true that there are some oppositors from the current TLA holders, these are really what could be classified as bad loggers. It is unfortunate that they would not have sufficient supply if we shift immediately from virgin to logged-over because of the 80 that we have, about 40 percent of these are denuded, not logged-over. The supply is from logged-over. They should have protected their areas such that in the equation that we have, they are now classified as logged-over. So, in effect, we foresee that only 10 to 15 loggers would qualify to ship immediately. But as I have mentioned earlier, there is a lot of opportunity, especially for participation of communities, to undertake logging in the residual forests for those areas outside of the current TLA. The current requirements will not be met by the present hectarage of logged-over areas inside TLA because only 10 to 15 will remain. And, in fact, just the other day, we had a consensus to approve immediately one of the logging concessions that have already shifted to logged-over and it does not have virgin forests anymore. It has returned to the second cycle. And in some instances, the other growth are coming into the third cycle. So it shows that it will really revert back if we religiously follow the covenant set within the TLA agreement that DENR had with all of these concessionaires.

Now, on the matter of ISF, Contract Reforestation and other instruments, we have discussed these also with the Asian Development Bank and somehow, in the future, we have to re-evaluate all of these because it looks like if we extend the Contract Reforestation scheme to production sharing under the FLNA, it will look like an ISF. So, where do you draw the boundary and delineation when one does not have tenure, the other one has tenure. The other one has a contractual obligation and the other does not. So, we are seriously studying these as future instruments that should be regularized to conform to a particular norm following sustainable development.

As far as forest charges is concerned, you know very well that we have to go to Congress for this. But for those that are new and those that were cancelled or had expired, we could shift immediately following the new TPSA guidelines in which better capture of rental to the Government is followed. But the matter of existing TLA has to be referred to Congress for action because our Constitution is not very clear on what is covered when we shifted to the new mode of disposition. Thank you, Mr. Chairman.

Usec. Roque (DENR): Regarding the issue of putting together these initiatives on ISF, the National Forestation Program, and perhaps, Community Forestry or even CARP, we have entertained this idea before hence we approached this changing forestry regime with an integrated area approach. I have proposed this to the Secretary as early as two years ago but there are some difficulties. For instance, in the Forestry Sector Loan, there are mandates to balance. There are protocols to be met which may not necessarily be covered by an approach like that. I had suggested that we pilot this Program, for instance, in Region 3 where we could do an integrated approach to reforestation, community forestry and social forestry and CARP. I think we will be doing that pretty soon.

I would now like to ask Delfin Ganapin to respond to some of the issues.

Dr. Ganapin (EMB): Well, the Plan calls actually for a transition phase, from logging in virgin forests to logged-over forests. And one of the suggestions in the Plan is to look at the unallocated forest areas. For some of the loggers who cannot transfer anymore to the logged-over forests they can be given another site. Of course, these unallocated forests are also reserved for possibilities of regional and local logging.

On the issue of the Community Forestry Program, actually the original plan was to establish 50 sites within the first year. But all of us know how difficult it is really to suddenly shift to a new system and, frankly speaking, there are some communities which still feel that a Community Forestry Program is mostly logging rather than actually mostly maintenance and protection. So there has to be value reorientation. We have to meet with them and discuss about proper harvesting systems, maintenance, silvicultural methods. We actually have to transform communities from simply exploiters to really good managers of the forests--to foresters and forest guards themselves. This would take time and the DENR and the communities, as well as many NGOs, do not yet have experience on this. So we decided on 12 pilot sites. But we will definitely increase it within this year. Because we found out that there are already some NGOs which have already organized communities and are ready to implement this in these areas. By next year, we can perhaps double or triple it depending on the expanding capability of the communities, the NGOs and DENR. We've already discussed integration of these types of programs with other programs of the Department. Our thinking is that we should take a look at the area and see which types of strategies can be put together so that these strategies complement each other. For example, one of our problems is getting funds to finance the first years of these Community Forestry Programs. Where are we going to get the money? For example, in CR, there are funds for timberstand improvement. Anyway, timberstand improvement is an initial step before they can harvest that forest, so funds for timberstand improvement can be redirected to these communities so that they get enough money or capital to start their Community Forestry Program. Then, in some areas where there are denuded lands, then CR can be given to them so that they can raise the money to get into the Community Forestry Program.

As far as Congress is concerned, I think we are starting to also push a little bit, of course, with the help again of allied NGOs. Rest assured that we're definitely linking up with Congress and we're finding out quite a few environmentalists amongst Congressman and Senators. And, hopefully, with their help, we can push a lot of these policy reforms through.

As far as illegal logging is concerned, there is now a serious discussion about this in the Department. And I think there was a discussion in Baguio recently with the World Bank about this. Our plan is to look at the causes of forest destruction. And it's not only illegal logging, there are several causes. There are even mixes of causes. And for each type of a situation, develop the strategy for that. And with more discussions with the World Bank and other donors, I think we can come up with a viable solution to this problem.

Usec. Roque (DENR): I would like to request Asec Magdaraog to elaborate more on the enforcement issue.

Asec. Magdaraog (DENR): Thank you, Mr. Chairman. We have had some discussions with the World Bank and the USAID as to our future plans for forest protection. What we have been trying to do given the limited resources is that we identify areas where high incidences of illegal logging are occurring. We provide specific unique solutions to the area by way of defining what are our advantages and disadvantages: by defining where we can attack the problem, both on the supply side as well as the demand side. In Aurora province we closed the province to traffic. And by doing this, we choked the industry in that area until they conceded to cooperate to a new form of surveillance as well as monitoring. Thereby, we were able to flush out the illegal operators and effectively drove them out of the Aurora National Park. We had similar unique

approaches in other areas. In Quezon province we implemented a "Balik- Chain Saw" program where we asked them to surrender the chain saws in exchange for legalizing what they already had cut.

Usec. Roque (DENR): Thank you, Yoyong. I'd like to add that if you look at the record of confiscation of contraband logs and lumber by the Department, this has increased by more than ten times since 1987. Or maybe, that could be interpreted as increase in illegal logging, but it would also be interpreted-- and this is the right interpretation-- that our political will in enforcing the law has increased tremendously. Mr. MacDonnel, would you like to give a comment?

Mr. McDonnel (Canada): Yes. I just wanted to support something that Mr. Wiens had suggested. I think that for the international donor community, it would be extremely useful if the measures and strategies that you're working out to enforce existing and new regulations and policies could be integrated into the Plan itself. I think it would lend a much greater air of credibility to the whole strategy because, certainly, from our perspective, the enforcement question is one that we're looking at with some concern, given the current activities in the country. So, I would just support what Mr. Wiens had suggested.

Usec. Roque (DENR): I'd like to invite some more comments? CEC?

Mr. McDonnald (CEC): Thank you, Mr. Chairman. I also would like to fully support what has been said on the key importance of dealing with illegal logging and of enforcing the measures against it. I was very interested in what Assistant Secretary McDonnel was saying on the importance of seeking to bring in representatives from the local communities, the local government units and, indeed, the local legal loggers. We have seen the Aurora case. But I would like to ask a specific question on enforcement. Enforcement is not just a dissuasion to start with and pursuit thereafter but it is also prosecution. Does the Department feel that the resources available to you for following up prosecutions sufficient? And do you also feel that the penalties arising in prosecution lead to conviction?

Dr. Ganapin (DENR): Our experience with respect to prosecution has been rather sad in the sense that we have really not been able to send the big time loggers to jail. The problems here had been many. Among them is the justice system itself because we presume that the accused is innocent until proven guilty beyond reasonable doubt. The process is really very long and, over and above that, our efforts at prosecution have also been impaired by way of the bureaucratic set-up that we have in the Department. For instance, a witness on our side would be unavailable to a hearing because he has been reassigned to some distant assignment. In these cases, we have lost our case.

However, we have had other approaches with respect to making more effective our law enforcement campaign. And this is with respect to the confiscation of conveyances used in illegal operations. We've had many confiscations of trucks and jeeps and other vehicles. And this has really hurt the illegal trade. And we have been sending very clear signals. We've also been using the inefficiency of the justice system on our side: "Okay, you can file a case against us and let's see who wins." Somebody is bound to lose. In other words, we're trying to use now our own disadvantages. But we are also taking effort to try and re-educate the fiscals and the judges. We have a program now with our Legal Department to, first of all, re-educate our officers in forestry laws and to come up with seminars with fiscals and the Justice Department on these things so that we can improve our procedures and relationships with them.

Usec. Roque (DENR): I think we should accept that there is a critical shortage of good lawyers in the Department. And the reason for this is the very low pay that the Government offers for lawyers. In the budget for 1989, we proposed a special provision in the budget proposal to enable us to hire lawyers at twice the prevailing rate but this was disapproved by the Department of Budget and Management.

Any more comments? Australia.

(Australia): Thank you very much, Mr. Chairman. We would like to endorse the opinions that have been expressed as to the importance of enforcement. It's very encouraging to hear some of the comments that have been made that there has been considerable progress on enforcement. We hope to see this progress continues. Thank you very much.

Usec. Roque (DENR): Yes, sir.

Alistair: Mr. Chairman, we are talking now about law enforcement and illegal logging. I was wondering, and looking at it from a legal point of view, is it correct to say that your legislation on forest protection and illegal logging are based upon the Constitution, or is there any other legislation? That's my first question.

Second, is there any bill pending in Congress regarding forest protection? Because if we are discussing this very important field of government policy, to what extent is the political will to have forest protection enforced. And, of course, to enforce your policy, you need the legal protection and you need to have legislation by which you can enforce laws and your own policy regulations. Thank you.

Usec. Umali (DENR): Most of the provisions that we are following, as far as prosecution of forest offenders are concerned, are still what are embodied under the old Presidential Decree No. 705 which is the Forestry Reform Code. This has been modified twice and the last revision that we have is particularly on increasing penalty, seeing to it that mode of conveyances are also confiscated including ships, boats and vehicles, and also providing for a reward system for all types of informers. And this is the latest modification of PD 705 and this is embodied in Executive Order No. 277 which the President signed prior to the holding of Congress.

As far as pending provisions is concerned in both Houses of Congress, the prosecution and penalties are incorporated in the two versions of the Logging Ban Bill that are filed at the present time. So, we have one version in the House and the other, in the Senate, which incorporates what would be done to offenders.

Usec. Roque (DENR): Delfin, would you like to add to Ric's responses?

Dr. Ganapin (DENR): Actually, in answer to Alistair's question, we have had some discussions about our Forest Protection Program proposal, and one of the key elements that we feel should be supplied to DENR are elements that would improve our mobility-- vehicles, communication equipment are very important. I've also mentioned in the presentation that regular overflights--the ability to spot illegal logging in remote sites--are necessary. Alistair and I have been to Palawan and there are cases, a lot of cases there. And there was a case when the PENRO had to investigate illegal logging and he had to run around looking for a vehicle to take him to the site. It took him about several days to borrow a vehicle. By the time he was able to borrow a vehicle it was

already over. So, if they cannot go there on the exact day when a report comes in, then it's going to be useless. So we were asking for a lot of support in terms of mobility and communications.

Usec. Roque (DENR): Any more comments? Yes, please?

(UNDP): Thank you, Mr. Chairman. Going away from the enforcement issue, I'd like to go back to the core concepts of the Plan. In past forestry laws, I understand that there was some mention about the multiple-use forest management concept. May I know if this is still being followed under this new Plan?

Usec. Umali (DENR): Yes, specifically in areas that are classified as watershed and those further sub-classified as critical watershed. So, all of the uses of the lands are really in combination of all of these. We have an on-going sub-classification program which we call field evaluation, where all the uses of forest inside forest lands are classified according to a criteria which we felt would put it under the best and sustainable category. So, we are proclaiming areas that are for production, for agro-forestry, for wildlife protected area, etc., which are all forest uses. And these are multiple uses in combination inside the classified forest land.

Usec. Roque (DENR): Since this appears to be a very interesting and important issue I would suggest that the Department will come up with a document describing the initiatives it has undertaken with respect to law enforcement in illegal logging and present new ideas on how this could be done. One approach right now is on a case-to-case basis because the complexity of the problem is different for each area, depending on who the principal illegal logger is. So that maybe this document will make it clear to everyone what are the things being undertaken. It would present general strategies as well as the efforts being undertaken by the other branches of Government. There are initiatives that the Department of Finance and the Department of Justice are also into. The Department of Justice has just created a Task Force only for illegal logging. So, we'll prepare a comprehensive document regarding this issue.

OPEN FORUM ON THE URBAN ECOSYSTEMS

Usec Roque (DENR): We are fortunate this morning to have with us two high-ranking officials of Government who can possibly complement what the speaker has said about the urban ecosystem problem and action plan. We have with us Commissioner Garry Cayton of the Metro Manila Authority as well as Assistant Secretary Manuel Sabalza of the Department of Transportation and Communication who can possibly elaborate on the extent of air pollution problem that we have and what the Government is doing about it. So can we call first on Commissioner Cayton to brief us on what the Metro Manila Authority is doing?

Com. Cayton (MMA): Good morning ladies and gentlemen. I'm Garry Cayton from the Metro Manila Authority. The Urban Ecosystem presentation touched on matters which are close to our heart. It is particularly concerning solid waste management, which, all of us are now beginning to feel, may not necessarily have a solution unless immediate policy measures as well as institutional frameworks are undertaken by Government.

One way of solving this problem is to formulate policies that would encourage the private sector to go into this line of business. The present provisions of the Board of Investments Act are prohibitive to private sector's involvement. We've been receiving a lot of offers from foreign as well as local business people recommending certain approaches to the problem which we now face and yet are unable to do so because of very prohibitive duties and taxes for equipment needed to address this problem more efficiently and more effectively. We are trying to negotiate these provisions now with the Board of Investments.

Approaches we have introduced in the past year are the introduction of compactor units replacing the old units that we still see every now and then. This was made available thru the Japanese government which gave us 116 compactor trucks in early 1987. We expect some more assistance from them this year and we hope that we can get an additional sixty to eighty units for Metro Manila alone, in order to enhance the more efficient system and more sanitary system of handling solid waste. The other item is the introduction of transfer stations as a solution to collection efficiency. One is now being built along the coastal road to serve as the prototype of four more to come in the next two years. This transfer station is designed to provide a middle area between the landfill areas and the collection areas so that our people will be able to enjoy faster and more regular collection systems. The open dump line system which is regarded as really hazardous to the environments and which is no longer acceptable to any civilized society, is now being replaced with sanitary landfill systems and which is now in the process of being finalized. There are a few items that are being finalized with the Environmental Management Bureau and we hope that we are able to comply with regulations that they provide and we should be able to close open dump sites in Metropolitan Manila within the year. We hope that you're aware of the Smokey Mountain problem and the Fairview/Payatlas dump site problem which is located just beside the La Mesa Dam which provides the water requirements of Metro Manila. These are all to be closed within the year. And the other item is that we are now negotiating new potential landfill sites in Bulacan to see if this can address the problems of solid waste management also for the province and of the Northern part of Metro Manila.

The solid waste management problem is growing. Our 1989 accomplishment report shows that collection has gone up to some 3.5 million cubic meters as against the 2.8

million in 1988. The approaches are diverse; each of the local governments are now given the responsibility of handling the waste management collection process in their respective areas. In the past, the Metro Manila Commission was undertaking it through an area office system. We're now closing ranks with the local government, the mayors, to determine if they could now address the problem more efficiently within their own budgets.

Usec Umali (DENR): Thank you, Com. Cayton. So we can call Asec. Sabalza to brief us on air pollution problems specially those coming from vehicles?

Usec Roque (DENR): We want the expat community to hear this because of the presentation of data saying that the air quality, especially those for suspended particulates, is about 200 percent above standard. So, Asec Sabalza could re-assure us that there are some measures being undertaken in addition to those being undertaken by the Department.

Asec. Sabalza: Next month, we will inaugurate and put on stream one of four more vehicle inspection stations that we have set up: two here in Metro Manila; one in Region 4 in Lipa, Batangas; and one in Region 3 in San Fernando, Pampanga. Our statistics say that 65 percent of all motor vehicle population in the Philippines is here in Metro Manila, 12 percent is in Region 3, and 8 percent is in Region 4. So, in these three adjacent regions, you have 65 percent of the total motor vehicle population of the country. This is a fully computerized process wherein motor vehicles, prior to registration, will be checked of smoke emission level. This has been made possible thru a grant-in-aid program from the government of Japan consisting of close to P = 100 M worth of equipment. The first motor vehicle inspection station will serve the needs of Metro-South. This is along the domestic road at the NAIA complex. The second will be in our Central Office at East Avenue. The third is in Lipa, Batangas and the fourth is in San Fernando, Pampanga. Firstly, we'd like to address the public utility vehicles. Sixty days prior to their registration deadline, at their leisure, they can bring their vehicles to our inspection stations and have their smoke emission tested. We will operate these inspection stations sixteen hours a day, seven days a week.

We are also addressing the high cost of spareparts, cite in our dialogues with bus, jeepney, taxi, and truck operators. And I think this has been addressed by the government. The corresponding tax incentives has been given for spare parts and for brand-new units to be brought in to serve the transportation needs of the country.

Usec Roque (DENR): Thank you Asec Sabalza. May we now invite Dr. Lohani from the Asian Development Bank to give us a reaction on the presentation? We would like to mention that the Asian Development Bank has provided a Technical Assistance on the Metro Manila Regional Transportation Improvement Program which is ongoing and can possibly provide the general framework for the Urban Ecosystem Program that we have just presented. So, can we Invite Dr. Lohani?

Dr. Lohani (ADB): Thank you, Mr. Chairman. It maybe recalled in the last Consultative Meeting that the donors observed a lack of support for the urban areas particularly the environmental pollution control side. It was very clear that there weren't enough support from the donors community in this sector and as it is of the fact. It was also mentioned in the same meeting of this ongoing assistance project which you rightly mentioned in Metro Manila, Regional Environmental Improvement Project, which have been made possible with Swiss government financing. And the Bank is administering it. The Project was recently reviewed with the Government and

several interesting information have been obtained, more particularly on the size of the investments required for this. It's also envisaged at this stage, as the Government does, the present study might definitely lead to the development of a National Urban Environmental Program which was briefly mentioned by Mrs. Balagot. The components of this Project has already been mentioned in the presentation: the solid waste, the river water pollution controls, air and noise pollution control, environmental education and training, and monitoring programs. And particularly on the air pollution issues, as was mentioned by the speaker earlier, there's also a parallel effort in the Bank to look into the vehicle emission issues, both the policies and the incentive measures that is required to go with as a part of the Transport Program Loan which is being discussed by the Department of Transportation and Communications under a separate framework.

What we've noted down of the study is the large amount of investment required in the urban sector, let alone Metro Manila. We've started discussing this, at the request of the Government, with other donors, and we think that the role of the other donors will be very critical in this sector. We mentioned this to OECF, we're talking with the World Bank mission about their efforts in these directions. We have also, in the last programming mission with the Government, mentioned the Bank's willingness to coordinate the efforts in this sector if so required. And we certainly would like to mention this to the donors, that we're quite happy to undertake this exercise as maybe requested by the Government.

Coming back to the urban sector as a whole, Mr. Chairman, we have some program on the Environmental Sector Program Loan which is being discussed with the Government - the River Revival Program, I mentioned about the Vehicle Emission Program - and I'd like to ask my colleague, Mr. Tom Walsh, to give a perspective from the country programming side on what has been discussed with the Government, NEDA, DENR and other related agencies. Thank you.

Mr. Walsh (ADB): On the programming side, I wonder if we have some small confusion on the conceptualization of Environmental Sector Program. I think we see it more as a policy-based type of program and, as we see, individual projects perhaps emerging from the Metro Manila Environment Program. And we just want to point this out at this stage that this is something I think we need to consider when we look at your future investment requirements.

Usec. Roque (DENR): Thank you. Can we invite other comments from the other participants? Yes, Dr. Rees from the World Bank.

Dr. Rees (World Bank): Thank you, Mr. Chairman. I would like to support some of the comments of Dr. Lohani. We have indeed been holding regular discussions with the Asian Development Bank with the idea of coordinating our efforts, and in fact with the Government, over the last eighteen months. We have been looking at roles that we might play in support of this initiative on the part of ADB. This began through the aegis of what was called then a Capital Cities Clean-Up Program, otherwise known as CCCP, we'd set rather uncomfortably with some members and so this has now been reclassified as the Metropolitan Environment Improvement Program, a natural improvement, perhaps one might suggest. This program is funded under a grant from UNDP, and it's Asia-wide. At the Philippines and Metro Manila, I went to those candidate sites. Now, I'm happy to see that Beta Balagot, referred to a strategy which could address some of the issues in terms of pollution control and management. These are in fact some of the items that we have been discussing with the Government. And I would like, perhaps,

to underline the importance of some of those elements particularly concerning institutional arrangements. It seems to us, in looking at countries in the region, that one meets the problem of interagency, even intra-agency coordination. We did urge the Government to form a coordination committee, under the leadership of the Environment Management Bureau. One would urge perhaps that since it's been a while that this recommendation was made and agreed, that it has become a natural priority.

The other aspect perhaps I'd like to present to our attention is the incentive structure. In the provinces down to the barangay level. And maybe, in view of the enormous difficulties that are overcoming some of the enforcement problems, this could be a venture that would have some impact. And certainly, somewhere along the line as Tom Walsh mentioned, one would perhaps want to engage some of the policies operating in this area to see if changes might be appropriate. I'll also mention appropriate technology of the relationship to cost, the relationship perhaps to capability on the ground and here, perhaps, technical assistance could come in from the bilaterals in a major way to assist the Government move in that capacity.

The last point I'd like to make is that we certainly will be keeping an eye on the Project which is currently being implemented by the Government through ADB support, to see what projects and proposals are generated. It seems to us that some quick measures can be undertaken.

Lastly, Mr. Chairman, I would suggest, perhaps that one activity that delegates might be interested in, in the sense of having some impact on the strategy and planning in urban areas, is that what is happening to Environment Impact Assessment. This country has, perhaps more than most Asian countries, looked at the processing and procedures of Environment Impact Assessment. It might be helpful perhaps to hear from the Government progress in that area. Thank you, Chairman.

Usec. Umali (DENR): Thank you, Dr. Rees. Would you like to react, Dir. Balagot, especially on the area of Environmental Impact Assessment procedure?

Dir. Balagot (DENR): Yes, but before that, I would like to react on the comment regarding the need for policy studies prior to the programming of investment activities. In the presentation that was earlier shown to you, there is a component on drawing technical grants for policy studies. And this should be prior to the actual identification of investment projects to be funded by the proposed Environment Sector Loan. So, I think there is no conflict in the approach that ADB would like to pursue. We see the necessity for these policy studies before we go into the actual identification of investment packages. Well, another thing is the institutional arrangements which Colin mentioned earlier. In this ongoing Metro Manila Project that is one of the crucial issues we also see in whatever environmental programs. Because by the very nature of environment, it cuts across several sectors and there are several line agencies which have specific environmental mandates. This is one of the major components that will be looked at. What is the most feasible institutional arrangement in the medium-term or short-term, given the existing institutions? What would be the best for the long-term implementation of environmental programs?

Now with respect to EIA, as you know, the Philippines has instituted this system since early part of 1980. And it has undergone several revisions, several streamlining in its implementation. And so far, thru the years, we can credit ourselves some degree of success in its implementation, although we must say that there's still room for improvement. Right now, the move is towards decentralization of the implementation

of EIA within the DENR structure, EMB is enforcing this EIA requirement. But, we lack manpower and other hardware resources to implement this EIA. So we have been thinking of decentralizing the implementation by phases. The first phase is in the monitoring aspect of EIA implementation. This will be the first that will be taken over by the regional offices, after which, the last stage will already involve the review of the actual EIA documents. So, for this, we need a lot of support for training activities, especially in the regional offices, and the need to support in terms of facilities to do this monitoring and evaluation.

Usec. Umali (DENR): Thank you, Dir. Balagot. Just to add to what she said. While the Government is trying to strengthen our own EIA system, I think it's also important that Government should properly understand and be able to respond properly to the environmental guidelines and procedures that are developed and implemented by the public institutions. Because we have several guidelines of Asian Development Bank, World Bank and other financial institutions, so possibly in the future, we should continue this dialogue so that we properly respond to your own guidelines. So, can we ask Dr. Roque to add some more to the fact?

Usec. Roque (DENR): With respect to Environmental Impact Assessment, we are moving in another direction rather than emphasizing the project-by-project Environmental Impact Statement. Internally, in the DENR, we are going into a more integrated approach to EIA. For example, we note that perhaps 90 percent of the Environmental Impact Assessment submitted to us for approval concern quarry-mining of gravel and sand in particular rivers. We have given instructions to our field operations to make a study of the river, plan out how gravel and sand could be extracted, and if this is made in a particular river system, then all miners therein will be exempted from the EIS. Meaning, they plan beforehand what's going to be done. The same approach is being used for the establishment of resorts in several islands in the Philippines. We already had several conversations with the Department of Tourism that the approach will not be project-to-project basis but consider an entire area for resort development, and then plan out environmentally how these resorts could be developed. So, it is a programmatic approach rather than a pro-forma-document approach per project. So, I think that is a qualitative change that we are trying to implement since the last few months...

Usec. Umali (DENR): Since we are running short of time, can we now move into the next presentation?

OPEN FORUM ON THE MARINE RESOURCES/ONGOING FAPS

Usec. Roque (DENR): Mr. McDonnel.

Mr. McDonnel (Canada): I noticed that the list of projects deal directly with the Department. When President Aquino visited Canada in November, we signed at this point a \$5 m linkage agreement between the Environment Institute at the UP Los Banos and the Dalhousie University in Canada. I'm pleased to report that the project is now just getting underway. It seeks to strengthen both the long-term and the short-term training capacity within the Philippines in the environment field. So we've built into it a number of components on development action programs at the community level policies, that is, extension of training which we will be implementing in close coordination with the Department. And we look forward to programming those areas. Thank you very much.

Sec. Factoran (DENR): Yes, sir. We really would like to apologize for that. It is really my fault. I should have remembered because I was there and was very happy with that signing. Actually, this has been prepared before December 1 and there were gaps. A further gap I expect would be that there might be other environmental projects you have signed with other agencies of government that might not have been mentioned. So we would like to apologize and we will try to make a listing before the day ends. Thank you very much.

Usec. Umali (DENR): Mr. Chairman, we also would like to call your attention that we have given you in a separate sheet the listing of other proposed programs and projects coming from the other governmental agencies that fall within the framework of the PSSD. This has not been incorporated in the covered ones because these are all DENR programs and projects. However, the actual plan and policy reform will deal with all units of Government. Hence, we have inventoried all of these other programs and projects which we have circulated to you.

Usec. Roque (DENR): Ken Prussner.

Mr. Prussner (USAID): We could provide the Secretariat that complete list to make your job easier. Thank you.

Usec. Roque (DENR): Actually we have a list of action programs which included those of the other government agencies. I just do not know whether this has been circulated already by the Secretariat. But it would help if you provide us a new list because this may not be updated. Mr. Mangun.

Mr. Mangun (UNDP): Thank you Mr. Chairman. Along the same lines, UNDP has assisted the Government in projects in natural resources management and environment which are not directly with the DENR. We also have two projects--in mining and investment promotion. I think both are with the Bureau and one deals with chromite exploration funded through revolving fund. Thank you.

Usec. Roque (DENR): Yes, we apologize also. It was not mentioned in the presentation of Ric Umali but definitely we are very aware of the program. Bindu.

Mr. Lohani (ADB): Thank you, Mr. Chairman. Just a minor comment. You're already familiar that environmental issues are fully integrated into the development of all line agency projects. I am sure the other donors have the same policies. And in several of our projects, we do have these environmental components that sometimes form a significant part of the other development projects. I wonder what kind of mechanisms you have to have it known, or would it be helpful if we provided you the areas where we have our environmental components built into in other sectoral projects?

Usec. Roque (DENR): Yes, that would help. Thank you. We'll instruct our Foreign-Assisted Projects Division to research into this case. We know that in the energy sector loan and in the transportation sector loan, there are important environmental components, as well as in the fisheries sector loan.

Any more comments, or suggestions especially on the paper on Marine Fisheries? Tom Walsh.

Mr. Walsh (ADB): You mentioned about your Environmental Education Intensification Program and US\$1 m that you have allocated for that program. Is that essentially a public information program or is it something you're working out with DECS? I ask that because we're trying to see how we can work with DECS in promoting environmental education in the school system and I am curious to know how you're approaching it so far.

Usec. Umali (DENR): Just for information dissemination, and part of the bulk of this comes from the UNDP support to upland development. This is concentrated on information campaign in the upland. That is why it was shown here in one of the PSSD strategy being implemented by DENR.

Mr. Prussner (USAID): Is the estimated amount of foreign-assisted projects between 35 and 40 percent of the total budget? Did I hear that correctly?

Usec. Umali (DENR): Well, in the presentation yesterday which we clarified, it's the other way around. More than 20 percent is the DENR component. The rest are with the other government agencies.

Mr. Prussner (USAID): I'm sorry. What I was trying to clarify had to do with the total budget of DENR and its breakdown into the GOP and foreign-assistance.

Usec. Umali (DENR): We have about 52 percent of our total budget coming from loan proceeds and counterpart for foreign-assisted projects. The rest are regular government appropriations. So, that's the mix. In effect, half of the work that we are doing is supported by the donors here.

Usec. Roque (DENR): May we invite some more comments on these two Papers?

Mr. Prussner (USAID): Thank you again, Mr. Chairman. I was interested in Usec Gozun's portion which mentioned the roles that would be undertaken. Yesterday we talked a great deal about NGO roles but I am also interested in the local management of resources. Is that a combination of both the non-government and community organizations as well as local government units in local management?

Usec. Gozun (DA): Yes, conceptually, we would like to see the local people themselves, both the officials and the ordinary citizens, working together to manage their own resource. And hopefully, we can do this through community organization.

Mr. Prussner (USAID): May I further ask, is legislation needed in any of these or is this something that can be done through administrative agreements or is it a combination?

Usec. Gozun (DA): Part of it can be done by administrative orders from DA, the DENR and the Department of Local Government. But part of it may have to be legislated.

Usec. Roque (DENR): Australia, please.

(Australia): I am following up a bit on this NGO component of the work going on. I think they have their own NGO-funded programs. We have paid half in other funds and we hope to get a lot of requests for artificial reefs and assistance in the upland areas by community organizations. And I think what was done was we had a meeting towards the end of last year about coordination of some of our activities. I think we've all finally found that within areas near each other, we were doing similar sorts of work with different approaches to the same sort of problem area. I am just wondering whether there is a possibility of coordination of some of these efforts. What other NGOs or government organizations are doing in those areas so we might avoid this scattered approach.

Sec. Factoran (DENR): Yes, I do agree that some coordinative mechanism should be established. In our Department proper, we would expect that during the next few weeks, we shall have smaller meetings on particular projects to invite donors who would be interested in such projects, so as to determine what particular area they would like to come in. And as to existing projects, I would suggest that the Regional Development Council would be a very good area to get the coordination going. But for environment-related projects, we will initiate such coordination even in the RDC's by talking to the Cabinet Officer for Regional Development. And we promise to set up such mechanisms that will facilitate coordination and avoid overlaps. Thank you.

Mr. Mangun (UNDP): Mr. Chairman, on the Marine Resources presentation, I would like to mention that we have a rather sizable project with the University on Marine Science and Resource Development. I wonder whether this project might be of interest to your Department. It is institution building and also resource assessment. And research is done in Bolinao. Thank you.

Usec. Gozun (DA): Part of the program is precisely coordinating all the research and resource assessment activities going all over the place, and, hopefully, consolidating that into an understandable piece of information that can be built upon as time goes by. The other thing we are trying to do is get the cluster for rural development from the Government end. Because the Philippines has a very long coastline and a major part of rural development will have to happen in the coastal communities. And we are working with clusters so that not only the concerns of the Department of Agriculture as far as fishery production is concerned and the DENR as far as the environmental impacts are concerned can be addressed, but infrastructure, communications, and other stuff like that. We feel that the success of the program can only be achieved if there is a united effort on the part of Government in the implementation of the total program.

Usec. Roque (DENR): Thank you. Before Ken Prussner raises a point, we also like to mention that the USAID is assisting in the coastal zone management project through the ASEAN in Lingayen Gulf.

OPEN FORUM ON THE FUTURE INVESTMENTS/ALTERNATIVE FINANCING

Sec. Factoran (DENR): Questions, suggestions and comments? I do believe that this is an interesting presentation. Mr. Bunting, World Wildlife Fund.

Mr. Bunting (WWF): Well, one thing I would like to say from our experience in dealing with this debt-for-nature swap is we feel it's been very successful. We've funded swaps in a number of countries now and the Philippines' experience is probably the best of all of them. I also would like to say that it's one of the few times that we, in the environment sector, had been able to work with the Ministry of Finance and Central Bank. Normally, they don't get involved in environmental activities, and their participation is a great benefit. Also, I would like to stress that this debt-for-nature swaps don't necessarily do much to reduce foreign indebtedness. The amount of money we're talking about isn't that significant. But what they do is they put money into the environment sector, protection of reserves, and the conservation of biological diversity, that normally would never get there in countries that have serious economic problems. They just can't spend that kind of money on those activities.

If I may, I'd like to elaborate on a couple of the other alternative financing scheme that were mentioned. One is the International Environmental Funding Scheme. We've always thought that that sort of an idea is a great idea, which should be implemented in a global scale. But I think it's kind of hard to come up with \$80 b or whatever has been imagined under that scheme. The WWF likes to think in practical terms and we have already initiated a similar concept on a one-country basis. We took the country of Bhutan which is small, easy to think about, has a very small bureaucracy. We are working with them in setting up a trust fund for the environment, on the same guidelines as the International Environmental Funding Scheme. And we are already approaching some more bilaterals on behalf of the rural government of Bhutan to see if that kind of mechanism can bring more money into the environment. I do think those sorts of ideas are very good because they allow for long-term funding. When we talk about planning for the environment, in the normal donors' cycle, it's two to five year. The environment takes 25 to 50 years, we have to be honest about it. And we need to get money into our planning process for much longer terms.

The other thing I'd like to comment on briefly is tourism. Tourism is one of the easiest things which you can tie into conservation and into environment because tourist often come to see beautiful natural landscapes. And this is something that the Philippines can do a lot with. An a practical example on this point, we took a park in Nepal. Through a lengthy process, we were able to pass new legislations where they allowed an entry fee which did not go to the Ministry of Finance or the Central Treasury but right into the project's checking account. We always worry about the sustainability of projects once the donors pull out their money. This Conservation Area Project now has about \$250,000 a year of its own money.

Usec. Umali (DENR): Thank you, Mr. Chairman. We just would like to clarify that we're glad that there is now really big support in terms of setting up this environmental facility. And this has been backed up by a lot of policy studies conducted by both the World Bank and the World Resource Institute, and by a lot of financial institutions. And we are glad that one of the additional technical assistance that we would be getting is coursed thru this facility. Although not yet approved formally by the different financial institutions it is already being supported and given financial support by the Government of Japan. Thank you, Mr. Chairman.

Sec. Factoran (DENR): Thank you. Further comments, please, questions, clarifications? Yes, Sir, Yagi San.

Mr. Yagi (OECF): I'd like to go back to the presentation of Dr. Guina on future investments.

We are really impressed and, frankly speaking, overwhelmed by the diversity and scope, and also the amount of the investment requirement. For that very reason, we'd like to know how you are going to prioritize all those projects and programs; firstly, within DENR and individual line agencies; and then secondly, within NEDA, when you submit requests for foreign assistance.

My second point is, again, the issue of enforcement. I'd like to join my colleagues of donor agencies in stressing the importance of enforcing measures. If we provide advance monitoring equipment, I think it would be of better use if the results of those monitoring activities will have to be utilized properly for enforcing laws and regulations in the environmental sector. So, we hope that when you formulate projects, programs, the aspect of enforcing regulations will be duly taken into account.

And, thirdly, just for your information, I would like to state that OECF mapped out guidelines for Environmental Impact Assessment last year which would be included in their process of appraisal of project proposals. So, I think that proposals for OECF loans should be scrutinized more carefully according to those guidelines. That's just for information. Thank you very much.

Sec. Factoran (DENR): Thank you very much. We're a little disturbed when Japan is overwhelmed by the amounts involved. But we, of course, agree with you that prioritization is something that we have to provide.

Off-hand, from the Department's experience, depending of course on the reaction of the donors, we would like to continue, in a big way, the success that we've had in the National Forestation Program. And in the rather short-term or medium-term, we do expect that the amount of \$300 m rather than \$1 b would be our requirements, and perhaps thereafter it could be checked or not the success is a continuous one.

Our principal banner program - and we are convinced that this is really the way to go about protecting the environment - is the ISF. And so that is top priority. Although it was not mentioned in the package, part of the ISF would be the Community Forestry Program, which we estimate, depending of course on your experts' evaluation, would cost us something like \$20 m for the first 50 sites. This is not an annual or periodic investment, rather, this is a one-time investment because we expect that the Community Forestry program would thereafter be self-sustaining.

Again, something that floats out even without deliberate prioritization is the need for the IPAS. And that is top priority in any language.

And another item that really stares us in the face, whether we like it or not, is the need to attend to the Urban Ecosystems. And I think that would also be including the River's Revival.

The IEC program, which is rather modestly estimated is something that is basic, not only insofar as the Department is concerned but as a means to improve the law

enforcement. My philosophy in this regard is that the more people we are able to recruit to the side of environmentalism, the stronger will be the law enforcement. Because our experience in the Philippines is that the communities and the NGOs are more active, more dedicated, more passionate law enforcers than any of our bureaucrats could ever hope to be.

Research, which will be presented later, has not been attended to in the past adequately. And we would like to redress this inadequacy by putting it up among the top priorities.

The mineral resources presentation likewise has not yet been made, but we would like to elevate this as priority because it will be self-liquidating. I think the presentation later will show that whatever investments are made here can be earned immediately - I mean in the very foreseeable future.

The coastal resources management, likewise, upon an assessment of the need of the society, is another high priority.

We do expect after this, to set up a schedule of meetings with smaller groups who would express interest in various projects and find out just what institutions are willing to participate in what program, at what stage, and at what scope or extent. And we do expect that after this prioritization, Japan will not be overwhelmed after all. Thank you very much.

Dr. Carol Guina (NEDA): Well, I think there are two other dimensions to Mr. Yagi's question. And these two are: What considerations does NEDA take into account in the intersectoral prioritization? Where does environment fit in? I think this is what I understood to be another dimension of your question. And the third one is, What considerations then do we take into account when we endorse particular sets of projects to particular ODA sources?

Now, on the first one, I think it is known to most of the agencies and the donor representatives here today that we do have a programming constraint. It is a macro constraint that sets the level of public investment to gross national product. Thus far, we do not have a sectoral allocation that serves as a sectoral constraint when we program projects. But in the next round of updating of the Public Investment Program under the Synchronized Planning, Programming and Budgeting System, we are now going to set a level of a sectoral constraints to guide us in the programming. This means that for particular sector and departments, this sub-sectoral constraint will be able to serve as a guide for prioritization of specific projects within the sector. For the DENR, I think Sec. Factoran has clearly indicated what these are as far as the ENR sector is concerned. Now, generally, both NEDA and the departments take into account the manner in which the programs and projects impact on national priorities as well as the sectoral priorities. We take into account absorptive capacity of the agency - and, of course, DENR scored very high in this respect, as you saw yesterday - and, of course, the extent of project preparedness. Now, a significant thing to note in the investment package that we have presented for DENR is that there will be a perceptible shift from project assistance to program assistance. And this, hopefully, will give us the flexibility to more larger flows to the sector as well as the vehicle by which to implement strategic reforms in the environment sector.

Now, with respect to the last dimension of your question, generally, what we do is to match the kind of interventions needed for programs and projects vis-a-vis the kind of interventions that are provided by the creditor or the donor. Some donors state that

they are willing to provide experts, lease of equipment. Of course the multilateral are able to provide program assistance.

So, these are the points that we consider in matching projects with sources of funds. Thank you.

Mr. Prussner (USAID): Thank you, Mr. Chairman. Was the differentiation between the investment program and the alternative schemes meant to define between public and private investment? The former of course had numbers and programs; the latter offered mechanisms and schemes.

Usec Umali (DENR): Mr. Chairman, the presentations are not really to delineate the two. You'll notice that the actual delineation in the investment portfolio is just the GOP and the ODA. What we are saying in the next paper is that even official development assistance that we know of may not be sufficient, especially with regard to countries like the Philippines where the magnitude of the problem is such that if you don't finance now, you never need the finances later on. It will come to a point of irreversibility. Right now, we have to look at all the other options from the private sector, from the international policy program, from funds that are being set up. These are all global initiatives. And your government and the financial institutions are contributing towards the attainment of these global initiatives. And this is a quick way of disbursing and increasing the funds flow to finance conservation projects.

Sec. Factoran (DENR): Okay, Ken.

Mr. Prussner (USAID): Then, may I ask, Is there an anticipation of the differentiation between who would do what?

Sec. Factoran (DENR): Well, nothing official

Usec. Umali (DENR): Mr. Chairman, as mentioned by Dr. Guina, those that are already with commitment and funding support have already been deleted from what has been presented. But in terms of the option, you'll notice that some of those that have been listed could really be financed still by your government, but thru another mode. That's why we were just presenting all the other available options and modes. Because if you rely, as I mentioned earlier, on just bilateral agreement or agreement with multilateral, this has a ceiling. But most of your support goes to international initiative. And the Philippines should capture a share of all that's happening in the international initiative. That's what we're saying.

Sec. Factoran (DENR): Thank you. Ken.

Mr. Prussner (USAID): How would you anticipate, perhaps having a portfolio picture on what it would appear to be a private sector investment portfolio?

Usec Umali (DENR): At the moment, as we have mentioned, the presentation does not present the commitment to the private sector. However, there are some bits and pieces of projects and programs that is channeled to the private sector thru also the usual development assistance. For example, I've mentioned that the industrial tree plantation, which is under serious consideration within this year, is a project that is really of significant share to our National Forestation Program. But it has to be carried out by the private sector. There are other possibilities by which the private sector could come in. So, possibly, Mr. Chairman, in the future, I think we could properly identify

such kinds of projects so they initiative and stimulation from the private sector could be secured. Thank you.

Sec. Factoran (DENR): Yes, the basic handicap that we have is, in our Department there are no businessmen so, we really do not know what the areas are. I do suppose that we should coordinate more closely in such subjects with the more financially adept agencies of government. Here, we only have passion for environment and knowledge of forestry.

Are you, like the government of Japan, overwhelmed? I thought you would not be overwhelmed, Tom.

Mr. Wiens (WB): That was a challenge I couldn't resist. Actually following up on the question from the government of Japan about priorities, I thought we should make clear that there are also donor priorities, and of course, it's the matching of donor priorities and government priorities which make for successful assistance programs. And I thought I should state for the second, probably for the nth time to many of you, what priorities the World Bank is pursuing in the case of this Environment and Natural Resources Sector Adjustment Loan.

Basically, they are in agreement, with many of the priorities which have been presented here. Specifically, we list them under six points: they are to determine what areas of Philippines must be preserved undisturbed and introduce an effective management system - that is basically IPAS; they are to introduce user fees for public resources which discourage rent-seeking behavior - we've seen that as a priority policy in DENR; they are to provide security of tenure rights to users and and return for sustainable resource use - that relates to ISF and CFL; they are to improve enforcement of logging regulations; they are to establish an organizational framework for position of extension services to upland populations and establish mechanisms for subsidized support to small-scale community-based resource management and livelihood projects - this again relates mainly to ISF, CFL and some more programs. We expect to be not only a policy-based loan but a hybrid loan with a substantial public investment component organized on a regional basis. The details of both are still being worked out but we're very much still in the game.

Mr. Prussner (USAID): The reason I raised the question on the private sector is that they are involved a great deal in the post-production portion of whatever the sector implements. For example, in having tourism, one presumes that you don't have successful tourism unless there is some entity that is able to turn it into some unusual profit-managed but good - service- oriented enterprise. Likewise, the mineral industry will not continue unless any country or all countries agree to subsidize and therefore compete based on the subsidy. And as Malcolm Butler explained yesterday, the nation has an outstanding reputation in wood products particularly forestry and wood use for furnitures and other downstream processed items. And it would seen, as always, in each of our countries, we're competing more and more to see who can have a value-added portion.

Sec. Factoran (DENR): Thank you very much. Well, actually, in the business side of things, we have been very deliberate in using our regulatory authority to encourage or discourage certain industries as it relates to the environment. We have, of course, banned the export of lumber, forcing the wood processing industry to go into more value-added. We have likewise prevailed upon the entire Government to withdraw any charges from importation of foreign wood, so that, I think, even the value-added tax

has been eliminated and wood can now be imported totally tax free. We are likewise very active trying to solicit investments to be brought in for the processing of soft wood. Because for the moment, we are allowing the export of soft wood in timber form, because to ban it or to somehow restrict it might dry up the market, and we would lose the cooperation of the farmers who plant these things with the thought of profit. So, even as we agree, even as we understand the exporting of soft wood would not be good in the long run, we feel that in the short run, we should have an alternative market so that the farmers will continue planting. And this is being given complete support.

In our Research Bureau, research is now being concentrated on what indigenous species would grow fast where, alternative uses wood, the search for substitute construction materials, and the search for substitute energy materials, and we are similarly encouraging investments in those areas.

The eco-tourism is almost a natural. The constraints we're having is that the mistaken notion of before is to keep off development in protected areas because any development is bad. It would now seem, from the experience of other countries, that there are responsible developers who would in fact maintain the integrity of the areas sought to be protected not for any reason of environmental passion but because it is good for business. And so, we are opening that up.

But, really, we do not have any idea of what will be attractive to foreign investment, so what we do instead is open up ourselves to all suggestions from all quarters as to how they expect to make money and then run it through some sort of Environmental Impact Assessment, find out how it would impact on our mandates. If it will positively impact, we give, not only encouragement from our end but we really help them nurse this project thru the entire government machinery. That's what we've been doing.

Mr. Lohani (ADB): Thank you Mr. Chairman. I don't know whether this is a useful piece of information. You saw the requirement of \$2.34 b for the next five years. And as we look at our own program for the next three years, which is our country programming exercise, it shows something of the order of \$400 m has been committed to DENR. Of course, there are pluses and minuses which get discussed every year and firmed up. And again, I don't know whether this is helpful but this is the kind of figure that has been programmed for the next three years. Now, if you projected that for the next five years, you may be able to draw some conclusions. Thank you.

Sec. Factoran (DENR): Yes, that's very, very reassuring, then, Mr. Lohani. Any other comments, questions, please? I think the issue raised on law enforcement has been answered before, but if there are other questions that might give you some indication on my personal thinking on this, please don't hesitate to ask them again. But in the meantime, Celso, you would like to add something?

Usec Roque (DENR): I'd like to ask Ken Prussner what his views are concerning the debt-for-nature swap as a financing mechanism.

Mr. Prussner (ADB): Positive. I know that even the issue has been brought up within the legislative side of the US government. I think our colleague in the World Wildlife Fund is more up-to-date on this since they have actively pursued it. We, of course as Malcolm Butler, our Director said yesterday, pursuing that which is part of your next assistance. And we see and hope that this would be the largest that the USAID system has yet attempted. And definitely, bilaterally, the Philippines is once again, as far as our system is concerned in terms of the US government, the leader. We've done this thru

Central funds which may not mean much to a given country but bureaucratically, it means something. But in terms of a bilateral program, this country has committed itself in many fora, to the mission here and the USAID agency bureaus back in Washington. and I firmly believe from all that I've been reading. The congressional side of our US government has been very supportive.

So, That's why, sir, I think it's one of the easier questions that you've ever asked me, Celso.

OPEN FORUM ON THE NGO PRESENTATION

Mr. Yagi (Japan): With regards to the viability of reforestation, we observed a very careful financial analysis of reforestation made in the context of a program loan. And the economic internal rate of return came out to be much higher than the cut-off limit of 12 percent. And that does not include the incalculable environmental benefits.

Sec. Factoran (DENR): Thank you. Yes, Ken.

Mr. Prussner (USAID): I can appreciate what it takes to come up with a consortium of the different groups. And I also am aware that the Green Forum is going to sit down with interested parties to further define the programs that were briefly mentioned.

I look forward to learning about how you will define the programs since this will show where major energies will be invested. And the challenge ahead is translating this unity into the creativity in implementing priorities.

Sec. Factoran (DENR): Thank you for your comment, Ken. Yes, CEC, please,

Mr. McDonald (CEC): Mr. Chairman, thank you. I do have a question for Mr. Kalaw.

I think when we were talking about NGOs yesterday, we tended always to concentrate on what the NGOs can do for DENR. I think, in doing that, we're probably unfair because we are forgetting about another crucial element of the NGO side which is the pressure group element. Mr. Kalaw, what would you see as the main practical constraints which you feel hinder the Green Forum or Haribon in achieving what you want to achieve in the field? What are the main difficulties that are hindering you? Thank you.

Mr. Kalaw (NGO): We are in the field to implement projects. That's our experience. But we would not like to be looked at as just an implementing arm of a particular government bureaucracy. Because I think that's not our role. Our role is to cull out the people's needs and try to facilitate that process so that we implement programs that are basically part of the general agenda.

As to the second question, our fundamental difficulty in the Philippines, like most poor country, is the vested interest of the political structure in the natural resource exploitation. In other words, we come across politicians who own logging companies, who have bought the military out. And second is the bureaucracy. When DENR Secretary Factoran mentioned the giving of PENRO and CENRO rights to decide with budget decisions, to us, this is really only decongestion from Manila and not decentralization. Because the CENROs and the PENROs do not take the people's participation in deciding. See, decentralization is only achieved when the whole beneficiary is taken into account in the process of deciding. If all the decisions of the PENROs and the CENROs must get concurrence from NGOs and church groups in the area, then you would have achieved that purpose much better than spending for your NGO desk.

Sec. Factoran (DENR): Any other comments or questions, please? Yes, sir.

Foreigner: Thank you, Mr. Chairman. Most of our efforts in environmental protection tends to be more of a curative than preventive. This is somewhat unfortunate and we

are trying to correct this with mechanisms like environmental impact assessment or environmental health impact assessment. But my question sort of relates to the effectiveness or the legal binding power of the environmental impact assessments that are done in the Philippines. Like, if you do assess that what the Government is undertaking is deleterious to the environment, let alone the private ones, what is the effectiveness of the EIA that you have carried out? And what are your chances of shutting it down or relocating it? Just a few examples. Anybody looking around in Manila can see the power stations scattered all over the Metropolitan area. When these were built, there was no heavy settlement around these things. But now, there is. And you can see smoke freely coming out of these things. So, I'm just curious as to what is the legal framework and what is your power as DENR to stop such things, and what mechanisms do you have, for example, to promote more of a preventive type of approaches. Like we're talking about more vehicle pollution. This is basically not exactly pollution but due to poor transportation system. So, I think the perspective in environment needs to be much wider than looking at it as projects or even programs. Thank you.

Sec. Factoran (DENR): Although there has been a law requiring EIA for quite sometime, it has not been really faithfully complied with. It is just fairly recently that this requirement has been taken very seriously. And that is preventive and we do have the authority to force them not to open up even if the investment has already been made. This is insofar as the new businesses are concerned. Theoretically, we also have the right to stop vehicles on the road which is smoke-belching; or an energy-generating station from operating because it is polluting the environment. Our difficulties in this respect, however, are two. Firstly, we're eagerly awaiting the establishment of a pollution laboratory because the equipment that we have in terms of pollution testing, monitoring and evaluation has been out of order for a long time. We do not have sophisticated equipment at present. We don't have a laboratory at present that would test that and make scientific judgments stick in court. The second problem is, and this is a more important problem, even if we did find out the energy generating station in Sucat, for example, is spewing out much more smoke than what maybe considered proper or safe, closing it down will really give rise to more problems. And if we started now to ban all the smoke-belching vehicles off the road, we'll probably have 10 percent vehicles running. We'll hardly have traffic, but we'll not have public transport either. So, there's a whale of a difference, miles and miles of distance between what is theoretically possible and what is politically possible.

Mr. Kalaw (NGO): Based on our experience, there are two major things that stick out in our minds. Some of our members lobbied very hard for getting an edict on the performance of Marcopper and the whole DENR was for stopping that operation. But somehow, when it got to the Palace, it got reversed. After it was declared bad, it was stopped for a while after that month. I guess the trade-offs were looked at and that went down. So, that shows you where it stands. There is also our experience of how bureaucracy can distort environmental impact because PNOC was able to explore the Mt. Apo reserve which is a heritage park. When we inquired, the technicality was used. But we did not give them a clearance to develop, only to explore.

OPEN FORUM ON THE MINERAL RESOURCES/RESEARCH

Sec. Factoran (DENR): Questions. Anybody, please? On the two papers. Amb. Williams.

Amb. Williams (Australia): Thank you, Secretary. I just like to make one comment and pass on one piece of information if I could. As to the second paper, much of what was covered in the portfolio was of legitimate interest for foreign investors in the country. I'd be interested to hear how you see the balance between program and the private sector in this exercise, because this is in the development of the country. The piece of information is we hope to be able to come to your department in the next couple of days to discuss the Mines Titling project. We now seem to have a green light on that from Australia. So, that's one good piece of information.

Sec. Factoran (DENR): Thank you very much for that very good new, Ambassador. Well, basically, I suppose that subject to the constraints imposed by the Constitution, whatever investments can be done by the private sector for profit would be welcome and only the gaps shall be submitted for public investment. Anybody else, please? Mr. Lohani.

Mr. Lohani (ADB): Just a small information which might be of interest to the donor's community. In our 1990 program, as agreed with the Government, we have a master plan for mining sector as a whole to be done sometime this year. It is expected, among other things, to lead to some investment needs, also programmed for 1991 in our program. Thank you.

Sec. Factoran (DENR): Thank you. Well, another piece of information is that insofar as the Department's thrust is concerned, the very first priority, at least in the very short-term is to try to establish facilities for small-scale development of semi-precious stones, at the barangay or some very small community levels, and specifically in the areas where gold is produced. These precious metals can be processed and the gold produced by the small-scale miners can be further utilized in order to come out with the finished products for sale locally or internationally. Those investments ought to be very, very minor compared to the other items we're talking about. And the Government itself would be making investments in Bicol and, I think, in Samar. But we would expect that the whole-scale effort at this point would have to be assisted by the donor community. But we do believe that this is very important because it would give direct benefit in the very short-term and again take the attention of the community away from the forests.

APPENDIX
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LIST OF PARTICIPANTS

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