SUSTAINABLE DEVELOPMENT, ENVIRONMENTAL PLANNING AND PEOPLE'S INITIATIVES

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The time has come for bold and unequivocal action.

Whether we realize it or not, we are now engaged in an epic battle to right the balance of our earth, and the tide of this battle will turn only when the majority of people...become sufficiently aroused by a shared sense of danger to join [in] an all-out effort. It is time to come to terms with exactly how this can be accomplished. -- U.S. Vice-President Al Gore

The United Nations Conference on Environment and Development (UNCED) underscored the premise that environment and development are inexorably linked. Development cannot occur with a deteriorating environment resource base. The environment cannot be protected and managed if growth does not take into account the costs of environmental destruction.

Translated in practical terms, environmental planning, which takes into account various factors and forces, must serve as a vital mechanism for making development balanced and sustainable. Resource management must involve the people themselves -- as members of the community, people's organizations (POs), non-governmental organizations (NGOs), or through their respective local government units (LGUs).

This paper intends to explore the concept of sustainable development which is fast becoming integrated into development plans of various governments. A framework for environmental planning will be discussed, after which, a

historical survey and description of Philippine environmental policy legislation and implementation will follow. Finally, considering the urgency of involving all sectors in decision-making, planning, and program implementation for balanced utilization of the environment, various points of intervention through people's initiatives with emphasis on the new 1991 Local Government Code (LGC) as a point for active intervention will also be discussed.

Sustainable Development as a Concept

As a concept, sustainable development has evolved in response to the growing concern over the continuing environmental degradation being wrought, all in the name of development. It would soon become a practical or standard term of reference in planning and decision-making. For purposes of clarification, a brief review of its evolution as a concept is in order.

In the 1960s, the term 'environment' was used to refer to the biophysical surroundings, excluding human beings and their constructed habitat. The separation of human needs and ecological values marked the conservation movement at that time.

During the 1970s, social and economic concerns began to be encompassed in discussions about the environment as a response to a perceived need to make space in the concept of socio-economic development for conservation and protection of the biophysical environment. Environmental concerns were stressed, and became additional considerations, rather than integral parts, of the planning process.

The United Nations Conference on the Human Environment held in Stockholm in 1972 brought to the attention of the global community the urgency of incorporating environmental concerns in the over-all concept of development. The strategic approach to integrate environment and development was then termed as 'sustainable development.'

The term was first brought to international attention in 1980 by the International Union for the Conservation of Nature and Natural Resources and defined more directly in the report of the World Comission on Environment and Development (WCED) as "development that ensures that utilization of resources and the environment today does not damage the prospects for their use by future generations."

Hence, sustainable development emerged as a key concept designed to link environmental concerns with economic analysis and activity. It gained currency through the work of the WCED in 1987. The Commission defines sustainable development as essentially "a process of change in which exploitation of resources, the direction of investments, the orientation of technological development, and

institutional change are all in harmony, enhancing both current and future potential to meet human needs and aspirations...of the present without compromising the ability to meet those of the future...."

Sustainable development requires growing economies to be firmly rooted in their ecological bases and that these roots be protected and nurtured so that they may support growth over the long term.

Only recently has sustainability, under crisis and threat, found its way into the political agenda and become an overarching goal and frame of reference for environmental conservation and development activities.

The concept of sustainable development, as enunciated in the Brundtland Report entitled *Our Common Future*, has been broadened to go beyond biophysical sustainability, to include other interrelated dimensions of the community/society, and be oriented towards achieving economic and social priorities as well as environmental ones. The key goals may be specified as:

(1.) meeting basic human needs for material welfare;

(2.) maintaining the ecological integrity of natural systems thus ensuring natural security (food nutrition, health care, maintenance of climate stability, water supply, clean air and fertile soil);

(3.) providing for equity, social justice, and choice of lifestyle;

(4.) respecting the cultural and spiritual identity and ethnic heritage of the people;

(5.) placing economics at the service of the processes of life rather than life at the service of economics; and,

(6.) ensuring that the system of governance establishes mechanisms that allow for citizens' participation in decision-making processes.

Thus, sustainable development entails more than environmental protection. It implies a concept of economic growth that provides fairness and opportunity for all, not just for the privileged few, without further destroying the finite natural resources and taxing the environment's carrying capacity.

It is a process in which policies (economic, fiscal, trade, energy, agricultural, and industrial) are designed to bring development that is economically viable, socially just, politically participatory, and ecologically sustainable. This means that current consumption can no longer be financed by incurring economic debts that others must repay. Sufficient investment must be made in the education and health of today's population so as not to create a social debt for future generations.

"Sustainability at the national level demands a balance between competitive markets, legal and regulatory frameworks of government, and social safety nets for the disadvantaged who do not have access to the markets. A balance must be struck between the compulsions of today and the needs of tomorrow..."

Sustainable development is concerned with models of material consumption which recognize the limitations of environmental space. Ecospace is not a free good to be exploited at will, but is to be treated as any other scarce asset subject to sensible management.

Sustainable development, then, is a comprehensive concept that embraces facets of human life. Thus, implementing models of sustainable development requires far-reaching changes in both national and global policies.

Sustainability at the national level demands a balance between competitive markets, legal and regulatory frameworks of government, and social safety nets for the disadvantaged who do not have access to the markets. A balance must be struck between the compulsions of today and the needs of tomorrow, between private initiative and public action, between individualism and greed and social compassion. It also entails a major restructuring of national budgetary priorities from military spending and inefficient public enterprises towards more investment in human development and the development of environmentally safe technologies.

Models of sustainable development require a new set of global ethics, i.e., a clear understanding that the cooperation of everyone is essential for common survival.

Planning Framework for Environmentally Sound and Sustainable Development

Planning practice has dealt with the environment using sectoral approaches. Those who are responsible for the environment are administratively insulated from those who manage development. Experience has shown that resources are not bound by sectors and that these issues cannot be treated separately by fragmented institutions and policies. Judgments on resource use which may be technically sound within one sector can be disastrous beyond the boundaries of that sector. There is then a need for new approaches that will build linkages among various sectors.

Problems of environment and development are closely interlinked in a complex system of cause and effect. The Third World Commision on Environment and Development has raised the following points:

(1.) Environmental stresses are linked to one another. For instance, deforestation increases run-off which, in turn, accelerates soil erosion and siltation of waterways;

(2.) Environmental problems and pattern of economic development are linked to one another. Some policies in agriculture must be linked to factors and policies that are causing land, water, and coastal degradation; and,

(3.) Economic and environmental problems are related to many social and political factors. Many developing nations have argued about the links between poverty, debt, and environmental deterioration.

The appreciation of the complex interrelationships between ecosystems and human activity is a basic step in forging a shared commitment to a single overarching goal -- that of meeting the basic needs of the present generation and extending the opportunity to satisfy their aspirations, without compromising the ability of future generations to meet their own needs and aspirations.

A commitment to this goal, according to Gore, means "embarking on an all-out effort to use every policy and program, every law and institution, every strategy and tactic, every plan and course of action, to halt the destruction of the environment and to preserve and nurture our ecological systems."

Redefinition of Region: The Ecological Zone (Ecozone) as the Unit of Analysis and Planning

Traditional development requires rethinking, retooling, and restructuring of processes and procedures, especially vis-a-vis decision-making.

Development planning at the national, regional, and local levels has viewed the environment as a 'natural resource sector,' quite separate from the human component of nature. Generally speaking, national development has been concerned with socio-economic planning; regional planning, with the coordination of national and sectoral plans at the regional levels; and local development planning, essentially characterized by local infrastructure planning.

An ecological perspective in development planning requires viewing the environment as a whole and understanding how its various parts interact with one another in various geographical areas and over time. This perspective also looks at human culture -- its role and influence in altering the environment or providing a balance.

Incorporating an environmental perspective in development planning entails using ecosystems or ecological subsystems as bases for defining units of analysis of planning and management.

The major elements in an ecozone are:

(1.) The watershed system which defines several ecological subsystems -- agroforestry zones and watersheds, mid-level rolling areas, lowland river valleys and alluvial plains, shoreline and foreshore areas, swamps and mangroves, and coastal settlements;

(2.) Population which consists of families in communities that are to be the subject of economic analysis, management, accounting, and evaluation of progress;

(3.) Transport networks composed of roads and transportation systems; and,

(4.) Market systems made up of a hierarchy of settlements defined by a central place functioning as a wholesale center and a periphery of smaller market towns.

The ecozones can encompass several municipalities and even cross provincial boundaries.

Carrying Capacity

Carrying capacity can be defined as the "maximum rate of resource consumption and waste discharge that can be sustained indefinitely in a defined impact region without progressively impairing bioproductivity and ecological integrity."

Each resource which is utilized by the human economy -- food, water, wood, minerals, oil -- is limited by both its sources and uses. The exact nature of these limits is complex because they interact and are all interlinked in a dynamic, single system. Herman Daly of the World Bank (Meadows 1992) suggests three simple rules in assessing the maximum limits:

(1.) For renewable resources such as forests, fish, soil, and water: the sustainable rate of utilization can be no greater than the rate of regeneration.

(2.) For non-renewable resources such as fossil fuels, and mineral ores: the sustainable rate of use can be no greater than the rate at which a renewable resource, used sustainably, can be substituted for it. (For instance, an oil deposit would be used sustainably if part of the profits from it were systematically invested in solar collectors so that when the oil sources are depleted, an equivalent stream of renewable energy is still available.)

(3.) For pollutants: the sustainable rate of emission or discharge can be no greater than the rate at which that pollutant can be recycled, absorbed, or rendered harmless by the environment.

It is worthwhile noting that although the Philippines depends on many ecological resources and functions for survival, its carrying capacity can often be determined by a single vital resource -- its forest cover. In many settlements, for instance, the loss of forest cover alone has led to disastrous consequences, as demonstrated by the Ormoc and the Nueva Ecija flash floods.

Thus, an understanding of carrying capacity provides a definition of sustainability in ecological terms. Any level of development or economic activity that does not exceed the carrying capacity of a management region is sustainable. Conversely, a development process which degrades the ecosystem upon which the regional population depends is not sustainable.

Environmental Planning, Monitoring, and Planning

To achieve sustainable levels of economic activity within carrying capacity, we will have to adopt a more rigorous and deterministic approach to regional planning. Long-term environmental factors, rather than short-term market forces, would be the primary determinants of land and resource use decisions as maximum limits or thresholds are approached.

The key mechanisms for translating the principles of environmentally sound and sustainable development into strategy and action are environmental assessment, quality monitoring, and management planning.

Environmental assessment is a proactive process of comprehending interacting elements and processes of the environment, including human activities for decision-making purposes. Environmental assessment should be undertaken at various stages of management and planning.

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Environmental quality monitoring is a periodic mechanism for identifying unsustainable trends in key environmental quality and productivity indicators based on ecologically significant parameters of air, soil, and water quality. The process includes tracking land development patterns to ensure conformity with planning criteria for sustainable development.

Environmental management and planning processes are designed to optimize resource use and minimize environmental damage through the direction and control of human activities.

The effective application of these mechanisms can only be achieved as part of larger policy and institutional reforms. Decision-making, then, has to be goal-seeking, adaptive, and interactive, and should effectively link environmental protection objectives, standards, and priorities with economic objectives. These mechanisms must be seen and utilized as problem-solving tools and processes by local governments, businesses, NGOs, POs, and the communities. The decentralization of environmental assessment, monitoring, planning, and management processes must be supported by institutional changes that will enable their application to an array of everyday issues of development planning and management.

Institutional Arrangements

The WCED Report identifies critical institutional elements and objectives to support sustainable development. They are:

(1.) a political system that secures effective citizens' participation;

(2.) an economic system that is able to generate surpluses and technical knowledge on a self-reliant and sustained basis;

(3.) a social system that provides for solutions for the tensions arising from disharmonious development;

(4.) a production system that respects the obligation to preserve the ecological base for development;

(5.) a technological system that can search continuously for new solutions;

(6.) an administrative system that is flexible and has capacity for self-correction; and,

(7.) an international system that fosters sustainable patterns of trade and finance.

Environmental Policy and Legislation in the Philippines: A Historical Review

The Colonial Era

Under the Spanish colonial regime, the earliest edict regarding the environment was implemented. Article 268 of the Law of Waters of 1866 contained provisions empowering the Governor-General to suspend operations of industrial establishments found contaminating the water with noxious substances.

During the American colonial administration from 1900 to 1935, environmental laws consisted mainly of regulations on the allocation and utilization of forest, fisheries, and water resources. Notable legislative actions during the period were the following:

(1.) The Spooner-Amendment to the Army Appropriations Bill of 1901 which mandated that no disposition of public land, timber, or mining rights thereon shall be made until the establishment of a permanent civil government;

(2.) The strengthening of the Forestry Bureau in 1902, with powers to ascertain and delimit lands for forest and agricultural purposes; and,

(3.) Act No. 4003 (Fisheries Act of 1932) which prohibited the use of explosives and toxic substances for fishing; banned the gathering of fish fry except for propagation and educational purposes; and forbade the discharge of chemicals, petroleum, refuse, and substances harmful to aquatic life.

During the Commonwealth era (1936-1942), the predominant laws pertained to the development and utilization of the country's most important non-renewable resource -- minerals. Legal stipulations on environmental protection were sectoral in approach, and were usually embodied in various enabling acts regulating the development and exploitation of natural resources. Among the significant laws passed were:

(1.) The Commonwealth Act (CA) 137 (Mining Act approved in 1936) which regulates the exploration, disposition, and development of mineral lands and ores; the policing and sanitation of mines, easements, and drainage; and the disposal of wastes or tailings; and,

(2.) CA 383 (Anti-Dumping Law of 1938), the first law that deals directly with waste disposal, prohibits the dumping into waterways of any substance that may cause an elevation of the level of river beds or block the course of streams.

Post-Colonial Period

From 1946-1972, environmental laws were clearly linked to the promulgation of basic developmental policies. These laws are in forestry, Presidential Decree No. (PD) 39 as revised by PD 705 (Forestry Reform Code); mining, PD 463 (Mineral Resources Development Decree); pollution control (PD 984); and environment, viz., Philippine environmental policy (PD1151), Philippine Environment Code (PD 1152), and establishment of Environmental Impact Statement System (PD 1586). The enactment of Republic Act (RA) 3941 in 1964, however, introduced a new dimension to environmental policy -- pollution control. Urbanization, industrialization, and the pressure of a rapidly growing population underscored the need to declare pollution control as a major state environmental policy.

On the other hand, various organic legislations since 1972 have emerged defining environmental management as a major policy to be pursued by the State. The presidential decrees promulgated during the martial law period comprise the main body of legislation presently being enforced.

Policy Implementation

Natural resource conservation was the main thrust of environmental management during the colonial period. The same policy was continued afterwards through different agencies within their respective sectoral concerns.

1946-1972

The former Department of Agriculture and Natural Resources (DANR), now split into two departments, implemented programs on resource management which included reforestation, soil conservation, and conservation of fisheries and aquatic resources. Environmental sanitation concerns fell under the Department of Health (DOH). Complaints about pollution were investigated independently by the Department (Ministry) of Environment and Natural Resources (DENR), DOH, or the Department of Public Works and Communication (DPWC) depending on where the complaint was filed.

In 1964, RA 3961 created the National Water and Air Pollution Control Commission (NWAPCC) to minimize or abate pollution resulting from the activities of the industrial sector. It was a slight deviation from the main thrust of natural resource conservation signifying the growing recognition of the adverse effects of industrialization on the environment.

1972 onwards

It was during this period that environmental concerns began to be viewed from a wider perspective. Recognizing that environmental problems are interrelated, the government started to address them through coordination between and among the government agencies concerned.

In July of 1976, the Inter-agency Committee on Environmental Protection (IACEP) was created under the Ministry of Natural Resources (MNR) to assess the existing environmental situation and government policies and programs relevant to environmental protection. The Committee's findings indicated the lack of coordination among the government entities involved with environmental protection and management, and the lack of mechanisms to evaluate the effects of development projects on the environment. In response to this, the National Environmental Protection Council (NEPC) was created in 1977 by PD 1121 to coordinate and integrate the formulation of environmental policies and the implementation of environmental programs. The NWAPCC was also reorganized into the National Pollution Control Commission (NPCC) with broader regulatory functions.

From 1977 to 1986, the institutional machinery tasked with environmental protection and management was composed, respectively, of the DENR/MNR, and the NEPC and NPCC.

Executive Order (EO) 192 of 1987 reorganized the MNR into the DENR. It abolished the NEPC and NPCC, creating the Environmental Management Bureau (EMB) which absorbed the former agencies' powers. The EMB's main functions are policy formulation, program planning, and the implementation of an Environmental Impact Assessment (EIA) system.

EO 192 also created the Pollution Adjudication Board, a collegial body which assumed the powers and functions of the former NPCC with respect to the adjudication of pollution cases.

A number of national government agencies are presently involved with environmental management and protection. The Department of Agriculture (DA) implements soil conservation programs and measures to protect the marine ecosystems and regulates the use of pesticides and fertilizers. The DOH takes charge of environmental sanitation and health. The Department of Public Works and Highways (DPWH) is responsible for the construction of flood control systems, sewerage systems, and garbage disposal sites. The Philippine Coast Guard enforces laws on marine pollution. The Department of Science and Technology (DOST) undertakes environmental research and the Housing and Land Use Regularatory Board enforces regulations on land use.

The DENR is the primary government agency responsible for the sustainable use of the country's resources and ecosystems. It seeks to promote the well-being of the Filipino people through: (a.) sustainable development of forest resources; (b.) optimal utilization of lands and minerals; (c.) social equity and efficiency in resource use; and (d.) effective environmental management.

The DENR is currently implementing programs consistent with the goals enumerated in the Philippine Strategy for Sustainable Development (PSSD)--

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the government's response to environment and development issues with the end of reconciling the diverse and sometimes conflicting environmental, demographic, economic, and natural resource-use issues. It contains ten basic principles which are: (1.) integration of environmental considerations in decision-making; (2.) proper pricing of natural resources; (3.) property rights reform; (4.) conservation of biological diversity; (5.) rehabilitation of degraded ecosystems; (6.) strengthening of residual management; (7.) control of population growth and development of human resources; (8.) inducing growth in rural areas; (9.) promotion of environmental education; and (10.) strengthening of citizens' participation.

Environmental programs specifically focus on forest conservation and utilization, renewal and rehabilitation, and community-based forest management as the rapid depletion of forest resources has been a major concern of the government.

On the other hand, the enforcement of pollution control rules and regulations are now decentralized to the regional offices of the DENR. Two institutions provide mechanisms for integrating environmental concerns in development planning: the Laguna Lake Development Authority (LLDA) and the Metro Manila Authority (MMA).

Created under RA 4850 of 1966, the LLDA was originally intended to function as a development agency. But in 1975, PD 813 revised the policy embodied in the said law to include explicitly environmental management and the prevention of ecological disturbance and pollution as major mandates of the LLDA. This is due to the realization that unless the quality of the lake's water resources is ensured and its watershed protected, whatever growth that can be achieved cannot be sustained.

The MMA is an interim metropolitan regional institution created in 1989 by EO 392. One of its mandates is to provide environmental services such as the enactment and enforcement of land use and solid waste management plans. A bill filed in the Senate, seeking to resolve the MMA issue, proposes to reorganize the agency into a technical unit (to be named as the National Capital Region Planning Authority) in charge of all:

(a.) land use planning and all inter-city and inter-municipal planning (e.g., services and utilities);

(b.) monitoring of plan implementation; and,

(c.) fund and technology sourcing for its plans and extend the same service to any local government unit (LGU) within the National Capital Region (NCR).

Decentralization of Environmental Protection and Management

The enormity of our environmental crisis calls for the involvement of all sectors of society. Time and again, the capability of the national agencies of the government to respond to crises has proven to be inadequate. Even without its bureaucratic constraints, the burden of providing solutions to the environmental problems is simply too great for the national government to carry alone.

It is timely, in the light of the new Local Government Code (LGC), to view the role of the LGUs and communities in effecting solutions to environmental problems. Any program which hopes to make a substantial contribution to the alleviation of such problems must involve the LGUs, for it is in the localities where impacts of environmental degradation are most palpable. Hence, it is also from them where various forms of intervention may emerge.

The LGC provides the LGUs a key role in the task of developing self-reliant communities and maintaining ecological balance. Book I, Section 26 of the LGC requires all national government agencies and government-owned or controlled corporations to consult with the LGUs "in the planning and implementation of any project or program that may cause pollution, climatic change, depletion of non-renewable resources, loss of crop land, range land or forest cover and extinction of animal or plant species." Book III Article 14 provides for the appointment of Environment and Natural Resources Officers at the provincial, city, and municipal levels of government.

The *Guidelines for the Implementation of 1991 LGC in the Environment and Natural Resources Sector* provides for the devolution of certain powers, functions, programs, and projects on forest management, protected areas and wildlife, environmental management, mines and geo-sciences development, and land management.

The Local Government Code: As a Mechanism for Popular Intervention

The Code institutionalizes the participation of the private sector in local governance through NGO and PO membership in local special bodies. To ensure the participation of NGOs in these local bodies, 18 national NGO networks formed a National Coordinating Council early this year with the task of overseeing the conduct of regional and provincial consultations on NGOs and the LGC.

The consultation processes resulted in a masterlist of NGOs/POs in each of the provinces and a selection criteria as bases for choosing representatives to the local special bodies. Both of these were endorsed to the Department of Interior and Local Government (DILG) and the LGUs. Another consequence of these processes was an agreement forged among the participants to encourage the NGOs/POs to apply for accreditation. Some also formed municipality/city-wide NGO/PO coalitions or networks, such as the Makati NGO Network.

The LGC timely presents opportunities for local development organizations to influence the development directions in their communities. The NGOs/POs need to maximize these opportunities and seek ways to effectively collaborate with local politicians and administrators, especially in addressing critical issues such as poverty alleviation and environmental conservation, rehabilitation, and management.

While the mechanisms for performing their role in the delivery of certain basic services and the development of local enterprises and livelihood projects are defined, how NGOs/POs will directly participate in environmental protection and management programs/projects at the local level is at present unclear. These have to be explored, clarified, and made known to enable effective NGO/PO involvement.

There is a pressing need to increase awareness on sustainable use of natural resources among the NGO/PO sectors and especially among the rural poor whose livelihood depends upon the very resources that are being misused. Support must be provided to the local communities in articulating their needs and initiating and organizing community-based, self-help activities.

The challenge lies in LGU-NGO/PO collaboration in formulating community-based ecosystem management programs, with the latter as active partners in the identification and solution of community problems. The NGO/PO sector, thus, deserves a second look in order for it to emerge as a vital political force in promoting environmental concerns.

The Growth of the NGO Sector

The decade of the 90s presents a critical point in the nation's history. The country has in the past four decades pursued a model of development that has perpetuated the concentration of political and economic power in the hands of the elite. This has resulted in dependence on foreign aid, a staggering foreign debt and government deficit spending; environmental degradation which is close to irreversible limits; the erosion of public accountability; and the stifling of local initiative.

The prevailing fallacy is that development is the sole responsibility of government. While the government continually asserts its principal role in national development, it lacks the human and financial resources to achieve its mission.

It is partly because of government's failure to deliver its development programs that the NGO sector has emerged. The first generation of NGOs consisted of the 'relief-and-welfare' type of organizations, mobilized for the purpose of providing emergency goods and care when natural calamities strike. It was followed by those engaged in the delivery of basic social services. Then, NGO coalitions or consortia emerged which engaged in policy reform advocacy and in interventions that contributed to the creation of alternative development structures and processes.

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Environmental NGOs

A relatively recent phenomenon among Philippine NGOs is the awareness that natural resource sustainability issues are integral to developmental concerns. Early efforts at integration were undertaken by the Philippine Federation of Environmental Concerns and the group from the academe involved in the United Nations' "Man and the Biosphere" program.

As environmental degradation, poverty incidence, and the quality of life worsen, greater attention is focused on the environment. There has been a growing realization among Philippine NGOs that poverty and

underdevelopment form a vicious cycle -- poverty causes environmental degradation (particularly in a setting characterized by a large population sharing limited resources), which in turn, reduces economic productivity, thus aggravating poverty.

Green Forum states that the critical point in this vicious cycle is "the lack of democratic access to and a mismanagement of natural resources. When resources such as forests and fishing grounds are given to a few [who do not belong to the local community], the result is the degradation of such resources and the impoverishment of the local community, with the eventual effect of overburdening the remaining resources and contributing to their destruction. Poverty, therefore, is just the manifestation of the problem, and environmental destruction is the tail-end of the process."

NGO/PO Influence and Intervention in Environmental Concerns

In recent years, the government has recognized the participation of citizens in environmental and development efforts as an important and decisive factor. Non-governmental organizations are potential vehicles for encouraging the participation and mobilizing the support of the citizens. Their strong direct links to the grassroots, their commitment, drive, and ability to act quickly are distinct advantages that enable them to work with greater ease on such tasks as community organizing, public information campaigns, and advocacy work.

The types of involvement of NGOs, POs, and communities in environmental concerns may be classified into the following:

1. Participation in DENR Project Implementation

One of the DENR's strategies in implementing the PSSD is the strengthening of citizens' participation and constituency building. For this purpose, it has set up Regional NGO Desks to serve primarily as coordinating centers between DENR programs and NGOs/POs.

In its effort to involve NGOs and communities in environmental protection activities, it has included NGO components in its programs and projects in such concerns as promotion of government accountability and transparency, policy review, environmental surveillance, contract reforestation, and environmental education.

2. Citizens' Direct Action

Among the numerous environmental issues, logging has provoked an increasing militancy among local communities. The gravity of their situation has made them decide that only through united action can they protect their environment.

Citizens' direct action has taken various forms: human barricades and hunger strikes (in Bukidnon, Cagayan de Oro, Cagayan Province, and Nueva Ecija); deputized forest wardens by the DENR; monitoring of logging activities; and marches, rallies, demonstrations and mass mobilizations.

Environmental activists in the countryside are facing serious risks to their life and welfare. Environmental advocates, journalists, priests (notable among whom is the late Fr. Nery Sator of Bukidnon), and church workers who have confronted timber contractors and their powerful backers in government and the military have either been threatened or killed.

3. Advocacy/Lobbying

In 1990, as a response to the continued denudation of our uplands, several NGOs coalesced to form the Task Force on the Total Commercial Log Ban. While the Senate version of the bill was passed, the House Bill languished because vested interests in the Lower House caused the delay in the Bicameral Committee work. The two-year struggle of the Task Force ended in failure at the end of the Aquino administration due to what was apparently a technicality -- the original copies of the Bicameral Conference Committee Report could not be produced.

Citizen's opposition has also been strongly expressed in other issues such as pollution from mining operations, the establishment of energy plants in various parts of the country (Mt. Apo Geothermal Plant, the Lake Lanao hydroelectric plant, and the various coal plants) and the planned operation of the Bataan Nuclear Power Plant (BNPP).

Some of these efforts are 'regional' while others have merited national attention because of the nature of the issue, as in the case of the BNPP.

An example of a relatively successful community effort is the action taken by the barangays affected by the proposed coal-fired thermal power plant project in Masinloc, Zambales. The project is virtually on hold because of continued resistance from the town residents, the local churches, concerned NGOs, and even town officials. Believing that the project will dislocate residents, pollute the town's rich fishing grounds and croplands, and affect the municipality's mango production, the residents have actively opposed the project. Since 1990, barangay councils and civic organizations have been turning in resolutions objecting to the project. The provincial board also passed a resolution disallowing the National Power Corporation (NPC) project in any part of Zambales.

4. Program Management

A recent development in NGO involvement in environmental concerns is its participation in the management of environmental programs, specifically, the United States Agency for International Development (USAID)-funded Foundation for the Philippine Environment and the United Nations Development Program

(UNDP)-administered *Global Environment Facility Small Grants Program and the Asia Pacific 2000.* In these programs, NGOs participate in policy formulation and decision-making, program design, and implementation.

5. Global Cooperation

The UNCED, held in Rio de Janeiro last June 1992, was the first unprecedented comprehensive North-South summit in the history of mankind. Representatives of 172 of the 178 nations attended and 17,000 representatives from 7,156 non-governmental organizations came from 165 countries. The Philippine NGO representatives played key roles in the paralled International NGO Forum (INGOF), where Green Forum Philippines acted as co-chair with the Brazilian NGO Forum and the Canadian Council for International Cooperation.

About 39 'alternative treaties' were negotiated at the INGOF. There was a consensus and convergence not only among southern NGOs but also between North and South that the 19th century enterprise model of development is not sustainable, and that the models of development should focus on the community and ecosystems as the principal units of analysis and planning.

The 'treaties' were basically agreements among NGOs on what they can do together regarding poverty, environment, and development and what strategies they need to adopt in order to influence their respective governments.

Challenge of Collaboration

Global networking and cooperation which culminated in the Earth Summit last June are continuing in the post-UNCED period. Despite UNCED, however, a diversity of opinions among various sectors still prevail. There are those who suggest that all future economic growth must stop – at least in the industrialized countries – to conserve natural resources for the future. Others disdain any natural limit on continued growth and place their faith in technological fixes to overcome scarcity. There are some who foresee a major conflict in the interest of the North and the South in the challenge of preserving the global commons.

Despite these diverse views, the severity of the environmental crisis dictates a bold and visionary response to ensure a sustainable future for all the world's citizens, both present and future. Former U.S. Senator, and now Vice President, Al Gore, in his book *Earth in the Balance*, believes that it will take "nothing less than a new conception of both the individual and civilization." He explains:

> I have therefore come to believe that the world's ecological balance depends more than just [on] our ability to restore a balance between civilization's ravenous appetite for resources and the fragile equilibrium of the Earth's environment; it depends [even more on] our ability to restore a balance between ourselves as individuals and the civilization we aspire to create and sustain. In the end, we must restore a balance between ourselves, between who we are and what we are doing. Each of us must take a greater personal

responsibility for this deteriorating global environment; each of us must take a hard look at the habits of mind and action that reflect -- and have led to -- this grave crisis.

Modern industrial civilization, as presently organized, is colliding violently with our planet's ecological system. The ferocity of its assault on the Earth is breathtaking, and the horrific consequences are occuring so quickly as to defy our capacity to recognize them, comprehend their global implications, and organize an appropriate and timely response.

We must make the rescue of the environment the central organizing principle for civilization.

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