

Impacts of Philippine Environmental Regulatory Policies on PNOC-EDC's Corporate Environmental Management Initiatives

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ABSTRACT

The Philippine environmental statutory state in the mid-'60s to late '80s can best be described as a "command-and-control" regulatory approach. Legislations were related mostly to pollution mitigation, emphasizing compliance with water, air and waste management standards. Environmental management at the time was equated with permitting systems, which in turn, were biased towards "end-of-pipe" controls.

In the 1990's, the government's regulatory framework has dramatically shifted towards the environmental sustainable development paradigm as a result of the country's commitment in the 1992 Earth Summit in Rio de Janeiro. As a signatory to other international environmental protocols, Philippine laws are now being rationalized through innovative policy reforms and strategies.

Environmental management is a vital component of PNOC EDC's corporate philosophy. The key to PNOC-EDC's environmental strategy lies in the fact that its management programs are continually evolving. Since its Environmental Management Division (EMD) was created in 1978, PNOC EDC has progressively modified its thrusts and programs to adapt to changes in national policies and regulations. The recent trend in government environmental policies of simultaneously achieving economic development, environmental improvement and social progress has always been manifested in PNOC-EDC's management strategies.

The Company is continuously undertaking various proactive approaches with the end view of harnessing the country's indigenous energy resources in a manner that is environmentally enhancing, socially responsive and economically uplifting for both the Company and its host communities, and the country as a whole. Clearly, PNOC EDC has complied beyond the requirements regulating the Philippine energy and environment sector.

1. INTRODUCTION

Various driving forces, both internationally and locally, have been shaping the implementation of environmental management in the Philippines over the years. From a simplistic, regulatory stance, the country is making significant improvements in environmental governance by actively soliciting the participation of multi-stakeholders and by crafting enabling mechanisms that are supportive of the sustainable development principles. Intensifying global environmental advocacy and the need to balance the growing environmental concerns with national development

and socio-economic agenda were the main factors that influenced this change in perspective. Recent national environmental mandates aspire to promote the twin goals of sustainable use, management and conservation of the country's natural resources vis-à-vis protection and enhancement of the environment.

In keeping with these innovative developments in policy outlook, PNOC-EDC has, likewise, accomplished considerable enhancement in its corporate environmental management system. To address the increasing demands of its energy projects and the needs of its project stakeholders, the company has taken proactive management strategies that ensure a productive and harmonious co-existence on the ground. As the company matures in the field of environmental management, PNOC EDC is now evolving as one of the industry leaders in the local environment sector. Some of its management plans and programs showcasing initiatives in rationalizing sustainable development now serve as models for other industries. Among those worth mentioning are its practices on self-regulation, public consultations, conflict management, social acceptability, multi-sectoral monitoring, community-based EIA procedures, and social forestry.

This paper presents an overview of the evolution of Philippine environmental legislations including the recent changes in local environmental compliance and enforcement, and the institutionalization of environmental management in PNOC-EDC's operation as a consequence of these developments and as initiatives to enhance the country's environmental development.

2. PHILIPPINE ENVIRONMENTAL POLICIES AND LEGISLATIONS

2.1 Environmental Administration

In the early years, environmental protection in the Philippines was not delegated to a single government agency; instead, environment-related concerns were part of the directives of several agencies dealing with agriculture, natural resources, health, housing and public works (EMB-UNDP Training Manual, 1996). It was only in 1964 when the *National Pollution Control Commission (NPCC)* was created to handle air and water pollution control in the country. In 1977, the *National Environmental Protection Council (NEPC)* was created as the policy-making body on matters related to environment. In 1986, however, major institutional changes were introduced in the government structure as a result of a change in political administration. One of these was the creation of the *Environmental Management Bureau (EMB)* in 1987, under the *Department of Environment and Natural Resources (DENR)*. The EMB assumed the regulatory functions of both the NEPC and the NPCC.

2.2 Environmental Framework

The national environmental framework is embodied in the Philippine Environmental Policy (Presidential Decree 1151 or PD 1151) and in the Philippine Environmental Code (Presidential Decree 1152 or PD 1152), both of which were enacted on June 6, 1977. PD 1151 defines the continuing policy of the state to develop and maintain a better quality of life for present and future generations by recognizing the right of every Filipino to a healthy environment. It was also the first environmental law to introduce the concept of Environmental Impact Assessment (EIA) in the country. PD 1152, on the other hand, defines the management policy objectives and strategies for water, air, natural resources, land and waste management by prescribing the enforcement of environmental quality standards. The Philippine Environmental Policy and Code, which laid the groundwork for subsequent environmental management undertakings in the country, were further reinforced by the 1987 Philippine Constitution. The Constitution mandates the protection of the right of the people to a balanced and healthful ecology as one of its major Policy Statements.

While comprehensive statutory policies were enunciated in the two (2) PDs, the specific legal rights, for which specific remedies in the law can be invoked, were not explicitly provided for. Thus, in 1996, Congress initiated the revision of the Philippine Environmental Code with the intent of having a holistic national program on environmental management. The original proposal was to integrate all the regulatory requirements of the EIA System, Air Quality Management, Water Quality Management, Waste Management, Environmental Adjudication Commission, and Natural Resources Management. However, due to the sheer magnitude and scope of the proposed Code and the lack of government funds to implement such a scale, the government instead opted to break down the various components into several Acts. To date, among those already approved are the *National Integrated Protected Areas System* (RA 7586, 1992), *Mining Act* (RA 7942, 1995), *Indigenous Peoples Reform Act* (RA 8371, 1997), *Clean Air Act* (RA 8749, 1999), *Ecological Solid Waste Management Act* (RA 9003, 2000) and the *Clean Water Act* (RA 9275, 2004). Some of the pending Acts currently undergoing review by Philippine Congress include the *National Land Use Act*, *Revised Public Land Act* and the *Sustainable Forestry Act*.

2.3 Pollution Control and Waste Management Laws

In the late 70's, environmental management in the Philippines was largely traditional in approach. Based mainly on command-and-control system (or the infamous "carrot and stick" method), emphasis was geared more on compliance with ambient, emission, and waste management standards. This posture was aptly captured in *Pollution Decree* (PD) 984 or the *Pollution Control Decree of 1976*, which took effect on August 18, 1976. The *Rules and Regulations of National Pollution Control Commission* (NPCC), otherwise known as the IRR of PD 984, were passed in 1978. The IRR established the standards for air and water quality, and the permitting system for the construction and operation of pollution control devices.

Some of the environmental standards contained in the 1978 NPCC IRR had undergone several revisions such as the Revised Effluent Regulations of 1982, the DENR Administrative Orders (DAOs) 34 (Revised Water Quality Criteria) and 35 (Revised Effluent Standards) Series of

1990, and the 1993 Drinking Water Standards of the Department of Health (DOH). However, these series of revisions caused some confusion on the part of the regulated communities since the standards that were not explicitly revised are still in effect, as contained in the previous version(s).

In 1990, the government approved *Republic Act 6969*, also known as the *Toxic Chemicals and Hazardous and Nuclear Waste Control Act*. RA 6969 regulates the importation, manufacture, distribution, use, and disposal of chemical substances and hazardous waste that may pose risks to human life and the environment.

In 1992 and 1993, the DENR released *DAO-29* and *DAO-14*, respectively. DAO-29, which is the IRR of RA 6969, addresses the management and disposal of toxic chemicals and hazardous wastes in the country mainly thru registration, reporting and permit applications. DAO-14, on the other hand, amended the ambient air quality standards and emission levels, specifically Sections 57 to 66 of the IRR of PD 984.

On June 23, 1999, the *Philippine Clean Air Act of 1999* (or *Republic Act 8749*) was enacted. The law, which took effect on July 17, 1999, describes the requirements for a comprehensive air pollution control and management program in the country. Its IRR (*DAO 2000-81*) was signed by the DENR on November 7, 2000 and became effective on November 25, 2000.

On July 24, 2000, the government approved *Republic Act 9003* or the *Ecological Solid Waste Management Act of 2000*. RA 9003 promotes the adoption of a systematic and comprehensive solid waste management through implementation of sound ecological practices such as conservation and recovery of valuable resources, waste minimization, and improved methods on waste disposal. Its IRR (*DAO 2001-34*) was approved in December 2001.

The latest environmental legislation passed by government is the *Clean Water Act* (RA 9275), which was signed on March 22, 2004. The Act imposes stringent measures to prevent further pollution of the country's water resources and provides for the collection of pollution charges in the form of fees from industries discharging wastewaters. The discharge fees are computed based on the volume and concentration of effluents. The IRR is yet to be drafted.

In retrospect, it can be seen that the government during the '70s to early '90s tend to put more weight on "end-of-pipe" controls and layers of permitting system, as evidenced by the earlier regulations. It is apparent that the government equated environmental management with pollution control during the said period. In fact, it is quite unusual that the approval of the Pollution Control Law preceded the declaration of the National Environmental Policy. The administrative and regulatory machineries were focused largely on how to control pollution rather than on pollution-preventive ways to improve environmental quality. Air and water quality standards were enforced through monitoring, permitting, imposition of fines and penalties, and closure of pollution sources. Since the system was excessively prescriptive and intrusive, it is but natural that hostility and resistance would often ensue between the DENR and the industries.

However, these perceptions changed during the mid-90s. The new decade signaled far-reaching advancement in environmental awareness, with both public and private sectors joining the green bandwagon movement. The sustainable development paradigm advocated primarily by the developed nations influenced the Philippines' pursuit of economic prosperity, environmental quality and social equity in equal footing. In fact, recent pollution control and waste management policies in the country promote the integration of other environmental regulations and mechanisms such as the EIA system, market-based incentives, public-private partnerships, and other economic policy instruments other than direct control to address the major resource use and development programs in the country. In effect, the recent environmental laws declared a redirection of government focus away from pollution control to pollution prevention.

2.4 Environmental Impact Assessment

The *Philippine Environmental Impact Assessment (EIA) System* was officially established in 1978 with the passage of *PD 1586*. Although the EIA concept was first introduced in 1977, it was only a year after when the framework, working structure and procedures for the implementation of the system were defined. The EIA system mandated the acquisition of Environmental Compliance Certificate (ECC) for projects or undertakings classified either as environmentally critical projects (ECPs) or those that are located in environmentally critical areas (ECAs). The areas and types of projects subject to the EIA System are contained in *Presidential Proclamation 2146 (1981)*. Geothermal projects are classified as ECPs and are usually located in ECAs, and thus are subject to the EIA system. Since 1978, several amendments on the structure, assessment parameters and procedures, working definitions, and scope of operations, among others, were made to strengthen the EIA System. Notable among these improvements was the incorporation of enhanced public participation as a major process in validating the social acceptability of the project. *Administrative Order (AO) 42*, which was approved on November 2, 2002, mandated the DENR to support optimum economic development in the country by undertaking a systems-oriented and integrated approach in the analysis and solutions of environmental concerns. The EIS processing and approval procedure was further streamlined to prevent undue delay in ECC applications.

3. EMERGING TRENDS ON PHILIPPINE ENVIRONMENTAL COMPLIANCE AND ENFORCEMENT

As mentioned, the 90's heralded a dramatic shift in Philippine environmental policies, development strategies and regulatory reforms. With the belief that successful environmental governance would mean allowing industries to achieve profitability while at the same time meeting environmental regulations in a practical manner, the DENR has since crafted new mechanisms that capitalize on the industry's initiative to self-regulate. In contrast to its previous command-and-control attitude, the DENR now believes that a successful environmental compliance program is one that delicately balances enforcement and encouragement – a right mix of carrots and sticks. By cultivating a sense of trust, social accountability and increased environmental awareness in the private sector, the DENR is gradually transforming its stance from merely

being a regulator to that of a partner. Thus, recent DENR programs advocating the adoption of the Environmental Management System (EMS), cleaner production practices, pollution prevention programs, phased approach to compliance, and greater transparency in reporting environmental performance, among others, are meant to solicit the involvement of the business community in solving the major environmental problems in the country (Abaya, 2000).

Below is a discussion of some of the innovative mechanisms and creative policies being instituted by the DENR relative to environmental regulations. Although some of these programs have no legal or statutory basis, the DENR is hopeful that they can serve as incentives to attract the industries to actively participate in environmental management.

3.1 Transparent and Participative Procedures

The DENR believes that public participation is an effective tool to attain and maintain social acceptability among the stakeholders of development projects. During project implementation, this same mechanism is premised on the principle that self-monitoring coupled with intense public scrutiny will lead to better environmental results or performance (Afsah, 2000). The DENR institutionalized public participation thru the EIA System thru *DAO 92-21 and DAO 96-37*. The DENR *Manual on Public Participation* was also released in 1996. Public participation techniques recognized by the DENR include information dissemination, scoping sessions, acquisition of endorsements, public consultations, consensus groups, advisory committees, conflict management, and regulatory negotiations.

3.2 Market-based Initiatives

Market-based instruments (MBIs) are now widely regarded as both philosophic and practical approaches to environmental legislations (Anderson, 1997). Recent regulations such as the *Philippine Clean Air Act (PCAA) of 1999* and the *Clean Water Act (CWA) of 2004* promote the use of market-based or economic policy instruments such as transfer of funds between polluters and the community (derived from taxes, subsidies, and effluent charges) and the creation of markets for pollution emissions such as marketable/tradable permits. The government, thru the *Laguna Lake Development Authority (LLDA)*, initiated the implementation of the *Environmental User's Fee (EUF) System* in 1997 (Oledan, 2001). The EUF requires industries within the LLDA area to pay a certain amount for effluents discharged into the lake and surrounding water bodies, including parts of Pasig River (Favila, 1996). The fees collected by LLDA are being used for ecosystem rehabilitation, research purposes, information and educational campaigns, enforcement and monitoring activities, and also as part of their operating expenses. Based on the initial success of LLDA's EUF System, the DENR intends to implement the wastewater discharge fee mechanism on a nationwide level.

3.3 Public-Private Partnerships for Improved Environmental Performance

In support of the objectives of the *Philippine Strategy for Sustainable Development (PSSD)* and the *Philippine Agenda 21*, the DENR has undertaken several programs that capitalize on the establishment of a broad-based

partnership with industries and financial institutions. Examples of these DENR-initiated programs are the *Industrial Environmental Management Project (IEMP)*, *Integrated Environmental Management for Sustainable Development (IEMSD)*, *PRIME Project (or Private Sector Participation in Managing the Environment)*, *Industry Initiatives for a Sustainable Environment (IISE)* and the *Philippine Environmental Partnership Program (PEPP)*. These programs seek to strengthen the private sector initiatives in reducing the environmental footprint of industries by promoting the adoption of the Environmental Management Systems (EMS), Pollution Prevention/Cleaner Production (P2/CP) practices, mandatory self-monitoring and compliance, and other economic incentives to reduce pollution generation among industries throughout the country. Through these partnership programs, the industries are given the flexibility to strategize on ways to meet government regulations by allowing them to decide on the most cost-effective environmental management method, while maintaining accountability and transparency in the process.

In terms of legal basis, *DAO 93-17* provides that industries participating in *Pollution Management Appraisal (PMA) Programs* are given a one-year moratorium on compliance with effluent and emission standards upon demonstrating their seriousness to minimize waste generation. This same policy mechanism is contained in the *1999 Clean Air Act*, which recognizes that industries adopting the Environmental Management System (EMS) on a voluntary basis are given a grace period of 18-30 months to reach regulatory compliance.

3.4 Rationalized Standards Policy

In revising the environmental standards of the country and in setting national goals and priorities for air, water and waste management, the DENR takes into account the benefits of proposed standards versus the cost of compliance, its administrative and technical feasibility, and the trade-offs associated with standards setting. In particular, the DENR-ADB Study on *“Evaluation of Environmental Standards for Selected Industry Subsectors”* (March 1997 – November 1998) presented the methodological approach for the rationalization of Philippine environmental standards by combining the adoption of certain standards based on financial and economic tools, adoption of more environmentally sound processes by industries, and careful deliberation of local sensitivities and absorptive capacities of the receiving environments, instead of merely adopting the standards of other countries. The DENR further recognized that successful monitoring and enforcement procedures could only be attained when the standards imposed are realistic or are capable of being met within the context of a developing country.

3.5 Environmental Impact Assessment (EIA) System as a Planning Tool thru Programmatic Compliance Procedures

Programmatic compliance can be implemented for a project that is subdivided into several phases or stages, whether situated in a contiguous area (like an industrial estate) or is geographically dispersed. Instead of repeatedly preparing several EIS reports, the proponent may opt to prepare a single EIS by taking into account the environmental carrying capacity of the area based on ecological profiling/assessments vis-a-vis the cumulative impacts or

risks associated with the overall development plan. With the use of programmatic procedures, the proponents can save on expenses related to EIS preparation. At the same time, a more holistic view of the multi-staged development project over a longer timeframe is generated since the overall environmental carrying capacity is accounted for in the assessments made. The *Programmatic Compliance Procedures within the Environmental Impact Statement (EIS) System* took effect thru *DAO 94-11* and *DAO 2000-05*. The *PNOC Petrochemical Development Corporation (PPDC)*, a sister company of PNOC-EDC, was the first to prepare and submit to DENR the first Programmatic EIS in the country.

3.6 Integrated Management with Safety and Health

The DENR is regularly coordinating with the *Department of Health (DOH)* and the *Department of Labor and Employment (DOLE)* in implementing health and safety measures as integral components of environmental management protocols. As early as 1991, the government manifested its commitment in protecting public health from problems related to environmental degradation by forming the *Inter-Agency Committee on Environmental Health (IACEH)* thru *Executive Order 489*. In 1993 to 1997, the *Department of Energy (DOE)* activated the *Geothermal Task Force (GTF)*. Among others, the objectives of the GTF include the strengthening of public awareness on geothermal operations and environmental health-related concerns, establishment of a database and industry standards on safety, health and environmental protection related to geothermal operations, and implementation of medical surveillance programs in geothermal project areas. In 1997, the DOH released the *Philippine National Framework and Guidelines for Environmental Health Impact Assessment (EHIA)*. The EHIA addresses the assessment and management of potential project-related environmental and occupational health problems.

3.7 Provision of Socio-Economic Benefits to Host Communities

From among the project stakeholders, the government prioritizes the host communities surrounding the project as primary beneficiaries with respect to allocation of socio-economic benefits. Benefits may include priority employment of qualified residents, provision of social development projects and basic extension/livelihood services, taxes, subsidies, and royalties. In the energy sector, benefits to communities hosting energy projects are contained in *Energy Regulations (ER) No. 1-94 (IRR of the Department of Energy Act of 1992)*.

4. PNOC-EDC’S ENVIRONMENTAL MANAGEMENT INITIATIVES IN THE ENERGY SECTOR

Environmental management has always been a vital component of PNOC-EDC’s corporate philosophy. For more than two (2) decades now, the Company, thru its Environmental Management Department (EMD), has been extensively involved in environmental and watershed protection, conservation and enhancement of its project areas. Since its inception in 1978, the EMD has progressively modified its thrusts and programs to adapt to changing national environmental policies and legislations. Because of the experiences gained by the Company in the field of corporate environmentalism, PNOC-EDC is acknowledged as one of the leaders in the local

environment sector and has a high credibility with the regulatory agencies, private sectors and the public in general. Some of its environmental plans and programs now serve as models for other related industries and have been adopted by the government in various national policy guidelines and procedures. Among the Company initiatives worth mentioning are its practices on self-monitoring, public consultations, conflict management, social acceptability, multi-sectoral monitoring, social forestry and participatory EIA procedures (Nieve, 1999).

4.1 Corporate Environmental Policy

The current *Corporate Environmental Policy Statement* of PNOC-EDC was officially approved in February 1994. The policy embodies the deep commitment of the Company to protect and maintain a sound environment in all its energy project sites and surrounding communities. However, even long before environmentalism became an emerging trend in the country, the Company had already put in place major policy commitments such as environmental compliance (1978), watershed management (1983), and community relations (1986) as components of its management strategies. In implementing the Policy Statement, several approaches were prioritized by the Company as key implementing guidelines. Below is a brief discussion of these practices.

4.1.1 Environmental Planning

The Company ensures that environmental planning is incorporated in all aspects of project design, development, and operation. In assessing the potential effects of its projects, appropriate actions are pursued by integrating protective measures as early as the planning phase in order to prevent or reduce project impacts on the environment, public health and safety. Way back in 1979, even before the implementation of the EIA system, PNOC-EDC had already prepared and submitted to then NEPC (now DENR-EMB) the Tongonan EIA as the first EIS report in the Philippines.

4.1.2 Consultation with Stakeholders

The Company also conducts regular consultations with the local government units (LGUs), government agencies, surrounding communities and other stakeholders. Adequate consultations on project activities and developments, related environmental issues, and project benefits are made with concerned sectors to elicit their participation and cooperation in environmental management and enhancement of the project. In 1990, the Company pioneered public consultation as a test case in Mt. Apo (Mindanao Geothermal Project) as a critical strategy to alleviate severe public opposition. In 1994-1996, the Company initiated subsequent enhancements of this mechanism in its Mt. Labo and Northern Negros Geothermal Projects. In fact, these two (2) projects were among the first in the country to model the complete *participative process*. The various tools used by the Company during public consultations include conduct of scoping meetings, information drives, key informants interview, focused group discussions, perception surveys, and public dialogues.

4.1.3 Compliance

It is the policy of the Company to comply with all relevant environmental, health and safety regulations, including permitting and licensing systems, and commitments entered

into with government agencies or with the communities. In complying with relevant environmental standards, the Company adheres to the intent of industry guidelines based on best practicable and economically sound technologies. In addition to environmental monitoring, the Company implements regular inspection of project facilities to detect and minimize unanticipated incidents, which may result to a state of non-compliance at the very least.

4.1.4 Corrective Action and Emergency Response Programs

The Company ensures the implementation of timely and efficient corrective actions to any environmental damage that may be caused by its activities. Corrective actions are based on established corporate procedures and industry guidelines. During emergency situations, the Company implements prompt and effective response programs to control or minimize the consequences of such events. The response plans developed by the Company include an operational plan that defines decision-making authority, methods of implementation, and available resources; a communication plan that includes internal and external communication protocols; public disclosure policies; and procedures by which the plan can be evaluated.

4.1.5 Research and Environmental Consciousness

The Company encourages and supports researches relevant to improving the Company's environmental measures and its ability to maintain public health and safety. Other studies are also undertaken to support new proposals to DENR, specifically those related to natural resources and waste management. By cooperating and networking with government agencies, academic institutions, non-government organizations (NGOs), other industry players and private associations, efforts are made to develop appropriate research methods on relevant environmental issues. The results of these non-proprietary research programs are made available to the public by effectively communicating the information directly to concerned parties.

The Company also promotes the development of environmental consciousness among its employees, contractors and suppliers, and Multi-Sectoral Monitoring Team (MSMT) members by conducting regular briefing, orientation and training programs on new environmental regulations, and by incorporating environmental provisions in contracts entered into by the Company. The Company convened the first MSMT in the country in 1992 (Mt. Apo Project).

4.2 Integrated Environmental and Watershed Management Approach

The Company believes that an integrated environmental and watershed management approach is one of the key elements in ensuring an ecologically sound and healthy environment in its project sites. The integrated programs have successfully enhanced not only the geothermal watershed areas but have also uplifted the economic status of the upland dwellers by providing them with sustainable livelihood options. Results of the EIA studies and subsequent environmental monitoring are also integrated with forestry and other watershed data to derive the most appropriate land uses and zones within geothermal reservations. The Company works hand-in-hand with concerned local government units (LGUs) by properly

relaying relevant information that can be used in LGU zoning and land use management plans.

The management systems implemented by the Company are multi-disciplinary in orientation. Aside from the standard air and water quality monitoring, the Company implements regular monitoring of the terrestrial and aquatic biota (flora and fauna) and land environments, and conducts surveys of socio-economic indicators. In parallel, the Company has also instituted several watershed management strategies such as reforestation and stabilization of opened-up areas, resource management, forest protection, community development and extension services for the surrounding inhabitants. The Company's environmental measures and practices, community-based EIA process, social forestry and community development, biodiversity monitoring, and accounting of CO₂ sequestration in forest vegetation are among those acknowledged by national and international organizations as models for environmental protection and development. PNOC-EDC takes pride in implementing these programs as they reflect the Company's genuine corporate social responsibility.

4.3 Going Beyond Compliance with Environmental Regulations

In response to the rapidly evolving regulatory prescriptions imposed by the DENR and other government agencies, PNOC-EDC started to innovate its environmental strategies in the early '90s. Its experiences in geothermal projects like Mt. Apo, Mt. Labo, Northern Negros and Southern Leyte helped shape the Company's pioneering efforts in environmental protection and management technology. Below is a summary of the key elements or highlights in the Company's environmental management program.

4.3.1 Self Monitoring and Audits

Regular environmental monitoring and audits that go beyond the regulatory requirements mandated by the government are systematically conducted by EMD. Such activities ensure compliance with environmental legislations and standards, adherence to corporate policies/procedures and industry guidelines, and detection of any environmental change or trend over time that may occur as a result of project activities. Audits also help enhance the Company's in-house environmental management system, which is basically similar to the principles espoused by ISO 14001. Being a performance-based system, well-defined environmental parameters or criteria are used to measure the performance and improvement of EDC projects. Moreover, these in-house initiatives are necessary since lending institutions conduct due diligence audits and require compliance with national laws. The environmental guidelines used in audits are periodically reviewed and updated to ensure that they reflect the best practicable technology.

4.3.2 Participation in Environmental and Energy Circles

The Company perceives its tasks relating to legislation review as an opportunity to participate in setting national industry standards. Because of its high credibility in the environment sector, the Company is a recognized member in review committees and technical working groups convened by the regulatory agencies and the Senate and House Committees on Ecology and Natural Resources.

Policy intervention, extensive sectoral networking (regional and national linkages) with other private groups/major industry players, and lobbying with the regulatory agencies for more practicable and cost-effective policies and laws are other avenues thru which the Company actively participates in. Interventions, especially from the regulated communities, are needed when government policies, laws or standards are impractical or unattainable due to current technological or engineering constraints, and/or financial setbacks. The Company participates in these collaborative sessions by sharing its experiences on environmental management with the regulatory bodies and other industries for the improvement of environmental policies, mainly in the energy sector.

4.3.3 Conflict Resolution/Management with Affected Stakeholders

The Company provides relevant information on its corporate policies and activities in a timely fashion to the government and the public. Consultative meetings, dialogues, multi-sectoral monitoring and other public disclosure practices are held on a regular basis to ensure that all necessary concerns and issues are responded to and that appropriate actions are implemented, as necessary. Thru these mechanisms, the Company ensures transparency in dealing with its stakeholders and recognition of the public's right to know.

5. CONCLUSIONS

The Philippine government has accorded environmental protection as one of its priority mandate in the formulation of its development strategies. The legislative framework is already well established. In fact, the Philippines has one of the most extensive set of environmental protection laws in the ASEAN Region. However, despite these laws, problems related to enforcement of environmental standards and regulations are still encountered mainly because of the government's lack of resources, expertise and political will. Effective enforcement requires well-structured and well-supported administrative machineries that truly reinforce existing legislations.

To partially address these administrative constraints, the DENR has recently modified its previous command-and-control approach by tapping the industries and public bodies in committing resources in the pursuit of its environmental objectives. Several innovative DENR programs that promote industry self-regulation are now being implemented and participated in jointly by the government, private sectors and funding institutions. These government-industry-civil society partnerships aim to enhance environmental quality thru improved environmental performance while enhancing productivity at the same time.

Even with these developments, current environmental governance can still be improved. In particular, DENR can further enhance its programs by having a realistic plan for program execution, clearly stated procedures, and databased and goal-directed policies. Some of the areas where formulation of policies and procedures can be reinforced are on (a) streamlining of permitting process and reporting requirements, including inconsistencies in interpretation of laws by different government agencies; (b) improving public participation in decision-making by educating the stakeholders and incorporating public values in decision-making; (c) regular evaluation of program accomplishments

and progress; and (d) additional incentives for industries involved in enhancement of environmental programs.

In parallel, PNOC-EDC needs to redirect its management plan in line with the deregulation of the power industry (*RA 9136 or the Electric Power Industry Reform Act of 2001*), the impending enforcement of market-based instruments (MBIs) for air, water and waste management, and the Company's diversification and marketing plans. The challenge, really, is to maintain competitiveness in an open market at a time when new regulations require substantial investments, not only in pollution prevention, but in the entire environmental management program implementation as well.

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