

*Working Paper No. 04-06*

**ENHANCING THE ROLE OF LOCAL  
GOVERNMENT UNITS IN ENVIRONMENTAL  
REGULATION**

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## **ACKNOWLEDGEMENT**

This publication was made possible through support provided by the Office of Agriculture, Bureau for Economic Growth, Agriculture and Trade, U.S. Agency for International Development through the Sustainable Agriculture and Natural Resources Management Collaborative Research Support Program (SANREM CRSP) under the terms of Cooperative Agreement Number PCE-A-00-98-00019-00. The opinions expressed herein are those of the author(s) and do not necessarily reflect the views of the U.S. Agency for International Development.

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# **Enhancing the Role of Local Government Units in Environmental Regulation**

*Dulce D. Elazegui, Ma. Victoria O. Espaldon  
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## **ABSTRACT**

This paper reviews the implementation of one major environmental regulation in the Philippines, i.e., the Environmental Impact Statement (EIS) system. This deals with the process of Environmental Impact Assessment (EIA) and the Environmental Clearance Certificate (ECC) required of projects or undertakings that have environmental implications. The paper looks into the following aspects - policies and procedures, institutions, and coordination among stakeholders involved in the EIS system. It examines the role of local government units (LGUs) in the implementation of the EIS system and recommends measures to improve the ECC policy and governance at the local level.

The paper distills some lessons and experience in the province of Bukidnon, the SANREM study site. To harness a locally-based and more meaningful participatory EIS system, a policy framework for administration and enforcement at the local level must be improved. This should address constraints which include inadequate perception and understanding of the process involved, weak role of the local government and community, lack of coordination among stakeholders. These problems are rooted to limited information, education and communication, thus awareness and capability building strategies must be enhanced.

## **INTRODUCTION**

The Philippine government is cognizant of the environmental and societal implications of certain development projects or undertakings, thus the implementation of regulatory mechanisms such as the Environmental Impact Assessment (EIA) and the Environmental Impact Statement (EIS) system. EIA serves as a means to predict, investigate and avoid harmful effects of proposed development projects on the environment and the people. EIS is the document prepared by the project proponent containing the results of EIA. Compliance with the system is affirmed by the Environmental Clearance Certificate (ECC) issued to the proposed project or undertaking declaring that it will not cause negative environmental impacts and mitigating measures are in place.

The impact of development activities is more immediate and direct at the local level. Thus, involvement of constituents within localities or sites serving as host to

projects or activities is critical, as they would be primarily affected by such undertaking. The linkage between policy stakeholders, local practices, and local priorities for action is crucial. Thus, it is important to examine the system of governance by which the process is carried out.

The role of local government units (LGUs) in the EIA and EIS process is important in order to harness local level participation in ensuring social and environmental acceptability of a project. Local government takes a strong role in sustainable development being both a planner and implementor of policies, and mobilizer of local public participation. The paradigm has been shifting from 'local government and the environment' to 'local governance and sustainability'. This has been globally recognized, e.g., through the Local Agenda (LA) 21 which was conceived in the 1992 UN Committee on Environment and Development. LA 21 explicitly assumes that the local level is the most appropriate level at which sustainable development can be implemented and that democratic local authorities are the most effective agents of change (Patterson and Theobald 1999).

## **OBJECTIVES**

This paper has an overall goal of enhancing the role of LGUs in the EIA/ECC process. Specifically, it attempts to:

1. examine the implementation of EIA/ECC and the role of LGUs in the process; and
2. recommend measures to strengthen the participation of LGUs in the EIA process and the issuance of ECC.

## **CORE HYPOTHESIS/RESEARCH QUESTIONS:**

1. What are the policies and procedures, institutions and stakeholders involved in the ECC process?
2. What specifically is the role of LGUs before and after the ECC issuance, particularly in the EIA?
3. What are the facilitating factors, constraints and outcomes in the local implementation of EIA/ECC?
4. What measures could reduce/overcome these constraints?
5. How could LGUs role be strengthened?

## **RESEARCH METHODS AND DATA USED**

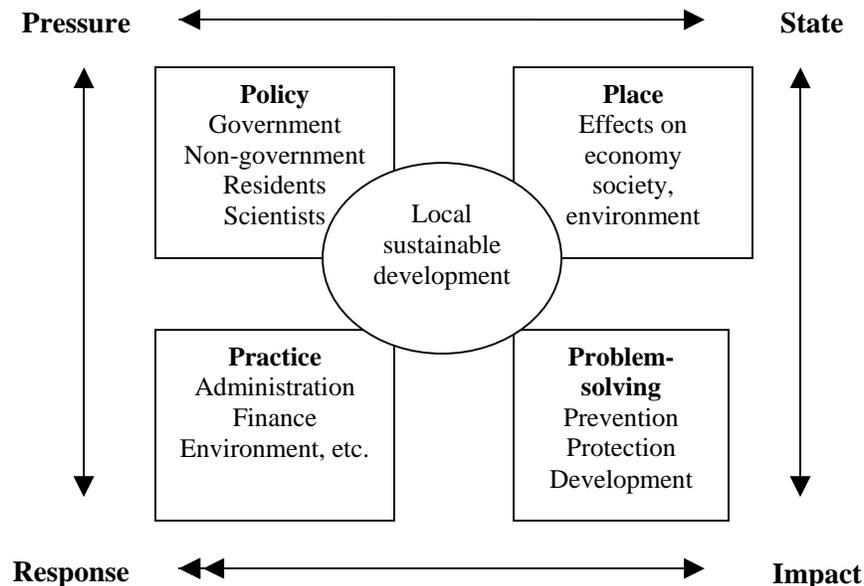
To conduct an analysis of the perspectives and experiences of the stakeholders involved in the EIA system, an intensive research was conducted by interviewing various key informants. These include representatives from the Department of Environment and Natural Resources (DENR), particularly its Environmental Management Bureau (EMB)

office in Region 10, other government agencies, local government units (governor, mayor, barangay captains), people's organizations, and ECC holders such as agri-business firms. The key informants' survey aimed to get insights on the ECC process, and thus to understand better the problems and needs to improve the system.

The study also involves a survey of literature to learn from various cases and experiences on EIA/ECC. Provisions of various policy instruments were reviewed, e.g., DENR policy issuances pertaining to EIS, the Local Government Code (LGC), and related documents at the Provincial Government of Bukidnon, e.g., Comprehensive Land Use Plan, Executive Order and Resolutions.

## FRAMEWORK

The basic question in the study is why the need to enhance the role of LGUs in the implementation of a national policy such as the EIS? The relationship between national and local decision making could be illustrated by the OECD framework (Brown 1999). At a macro-level, there are four basic interrelated indicators - Pressure (P), State (S), Impact (I), and Response (R). The pressure points (P) of human activities (waste production, agriculture, industries, etc.) within a given state of bio-physical conditions (S) will result in particular impacts (I), to which responses (R) could be identified. At the national level, policies, e.g., to control the pressures (P) and their expected responses (R) are likely to be designed based on theoretical perspective and principles, thus, monitoring results and effects of individual decisions and actions may not be discernible (Fig. 1).



**Figure 1. Dimensions of locally based decision making system**

Source: Brown, V. 1999

At the local level, the impact of human activities is more immediate and direct and individual decisions could vary. The connection between policy stakeholders, local professional practices, and local priorities for action become as important as the individual components. This sets forth the importance of the four dimensions of locally based decision-making system. These four points (4Ps)/dimensions: policy (P1), place (P2), problem-solving (P3), and practice (P4).

The four components adhere to the more generic P-S-I-R indicators and make up an interconnected system at both local and national levels. Policies (P1) provide the guiding principles for management decisions and strategic initiatives. Policies are made in response to the conditions of natural resources and on socio-economic conditions. They determine the pressures of social and economic decisions placed on the natural environment. Lasting policy directions are not just matters for government but for all stakeholders as well. Place (P2) refers to the bio-physical environment (like S) to which local approaches would be applied to solve problems (P3). Existing practices (P4), e.g., agricultural and industrial activities, may also be putting pressures on the environment and may need to be changed as well. Changes in practice will eventually lead to changes in policy.

The 4-P framework has been effective in identifying shared indicators among various stakeholders and arriving at a sustainable direction for a locality. Case studies of localities around the world reveal that a strong support for local monitoring is emerging, creating regional networks to contribute to regional and global sustainability. Although there must be international, national and regional frameworks and guidance, it is local policy and action which will deliver sustainability. Acting locally and thinking globally allows for new level of accountability by governments (Brown 1999).

Local government therefore takes a strong role in sustainable development as an institution of democracy and as a repository of knowledge and expertise and statutory responsibilities. Local government is both a planner and implementor of policies, and an educator and mobilizer of active citizenship and collective behavior at the community level (Filho 1999).

This has been recognized in the global setting through the Local Agenda (LA) 21 conceived in the 1992 UN Committee on Environment and Development in New York wherein local authorities worldwide expressed their commitments for an environmentally sustainable development. LA21 is an interface between formal and informal politics, between domestic/personal and public/community spheres (Patterson and Theobald 1999). It incorporates the elements of participation, consultation, and negotiation with local stakeholders in assessing local social, economic and environmental conditions and needs, in identifying priorities for action, thus holding them accountable for these actions, and monitoring and reporting procedures to track progress (Evans and Percy 1999).

## **THE EIA AND EIS SYSTEM**

With the growing recognition of integrating environment and natural resource concerns with development policies and programs, the EIA and EIS system has become increasingly important. EIA serves as a mechanism to predict, investigate and avoid harmful effects of development projects. It examines possible human health, socio-economic, biophysical, and geophysical impacts of a proposed project. EIS is the document prepared by the project proponent containing the assessment of the most likely impact of a project on the environment and the people. Similar documents are the IEE report but with reduced details and depth of assessment and the Project Description (PD) to describe the nature, configuration, use of raw materials.

EIA originated in the US National Environment Policy Act (NEPA) of 1969 and has been adopted by a majority of states in the US. Other developed countries that have introduced EIA include Australia, Canada, France, West Germany, Sweden, Ireland, Japan, New Zealand, Netherlands, UK, and Belgium. In Asia, Indonesia, Malaysia, Thailand, Malaysia and the Philippines reportedly have well developed EIA procedures (Brown and McDonald 1989).

There are, however, variations among these countries in adopting EIA, e.g., as a piece of legislation or as an administrative regulation; as a new system itself or as a component integrated with existing planning and environmental protection systems (Hollick 1986; Clark 1985). EIA, as part of project planning, aims identify and evaluate important environmental consequences and social factors that should be incorporated into project design and operations. The development of EIA is a result of converging influences, e.g., rational planning, technology assessment, risk assessment, environmental lobbying, technical feasibility and cost-benefit analysis (Clark 1985).

In the Philippines, EIA was introduced in the Philippines through the enactment of Presidential Decree (PD) No. 1151, also known as the Philippine Environmental Policy, in June 1977 (Table 1). It was then embodied in the Environmental Impact Statement (EIS) System which was established in 1978 through P.D. No. 1586 and later Proclamation No. 2146 of 1981. A number of policy reforms evolved the latest of which is Administrative Order (AO) No. 42 issued by the Office of the President in 2002 to further streamline the EIA process. DAO No. 2003-30 provides the implementing rules and guidelines of AO No. 42.

The principles adopted by the Philippine EIS system are that: 1) environmental considerations are integrated to the overall project planning; 2) assessment is technically sound and proposed environmental mitigation measures are effective; and 3) social acceptability is based on public information. The four major criteria for social acceptability of a project are that it should 1) be consistent with plans/programs and policies of the national, regional and local authorities; 2) contribute to the government's effort in promoting social equity such that social benefits outweigh social costs; 3) provide gainful employment and alternative sources of livelihood; and 4) involve women and vulnerable groups (e.g., physically handicapped, youth).

**Table 1. Major policies governing the Philippine EIA system.**

<b>Policy</b>	<b>Major Provisions</b>
DAO 2003-30 (2003)	Implementing rules and guidelines of AO No. 42
Office of the President AO No. 42 (2002)	Supersedes DAO 96-37 rationalizing the EIS system by giving authority to the Director and Regional Director of EMB in granting/denying ECC
DENR Administrative Order No. 96-37 (1996)	Supersedes DAO 21 of 1992 to further streamline the EIS system and enhance maximum public participation in the EIA process
DAO AO No 30 (1992)	Lists issuance of ECCs for projects and businesses under Kalakalan 20 as functions to assumed by LGUs
DENR Department Administrative Order 21 (1992)	Amends PD 1586 and decentralizes certain EIA functions to DENR Regional Offices
Republic Act 7160 (Local Government Code) (1991)	Devolves some environmental functions to local government units
Executive Order 192 (1987)	Reorganizes DENR and transfers functions of NEPC to the Environmental Management Bureau (EMB)
NEPC Office Circular No. 3 (1983)	Provides technical definitions and scope for ECCs and ECAs
LOI 1179 (1981)	Authorizes NEPC to issue ECC and exemptions
Presidential Proclamation No. 2146 (1981)	Defines the scope of EIS system categorizing and listing environmentally critical projects (ECPs) and areas (ECAs)
IRR of PD 1586 (1979)	Defines parameters and establishes procedures for EIS implementation
PD No. 1586 (1978)	Establishes the Philippine Environmental Impact Statement (EIS) System requiring environmentally critical projects (ECPs) and areas (ECAs) to submit EI statement and secure ECC
PD No. 1152 – Philippine Environment Code (1977)	Requires land use regulatory agencies to consider significant environmental and other impacts of locating industries
PD No. 1151 – Philippine Environmental Policy (1977)	Requires GOCCs and private corporations, firms and entities to prepare an Environmental Impact Statement for their undertakings

There are four general categories of projects/undertakings under the EIS system based on DAO No. 2003-30. These are:

- 1) Category A – Environmentally critical projects (ECPs) with significant potential to cause negative environmental impacts and required to hold public hearing<sup>1</sup> and submit an EIS to EMB (Table 2);
- 2) Category B - Projects that are not ECPs, but which may cause negative environmental impacts because they are located in environmentally critical areas (ECAs) and required to submit an Initial Environment Examination (IEE) report to DENR Regional Office;
- 3) Category C - Projects intended to directly enhance environmental quality or address existing environmental problems not falling under Category A or B; and
- 4) Category D - Projects unlikely to cause environmental impacts.

ECPs and projects in ECAs are required to obtain ECC from the DENR Secretary or the Regional Executive Director (RED) before operation (Appendix A and B). ECC is a document certifying that the proposed project or undertaking will not cause negative

<sup>1</sup> *The proponents should initiate public consultations early to incorporate the stakeholders' concerns in the EIA study and management plan. The EMB/EMB Regional Director shall validate the report on such activity. Public hearing, on the other hand, is a more formal process initiated, planned and conducted by the DENR to provide a forum for the proponent, DENR and the public to exchange views and resolve conflicts.*

environmental impacts, and the proponent has complied with the requirements of the EIA /EIS system. All other projects including those operating before 1982 or registered as *Kalakalan 20* are considered not covered by the ECC System and may submit a project description (PD) to obtain a Certificate of Non-Coverage (CNC) (Appendix C).

**Table 2. Projects (ECPs, non-ECPs in ECAs) requiring ECC and projects under CNC.**

<b>Environmentally Critical Projects (ECPs)</b>	<b>Non-ECPs in Environmentally Critical Areas (ECAs)</b>	<b>Projects under Certificate of non-Coverage (CNC)</b>
<p>A. Heavy industries – non-ferrous metal industries, iron and steel mills, petroleum and petrochemical industries, smelting plants</p> <p>B. Resource extractive industries - major mining and quarrying projects, forestry projects, dikes/fishponds equal to or more than 25 ha.</p> <p>C. Major infrastructure projects such as dams and power plants, roads and bridges, 25 ha- or more reclamation projects</p> <p>D. Golf course projects</p>	<p>A. Areas declared by law as national parks watershed reserves, wildlife preserves and sanctuaries</p> <p>B. Areas set aside as aesthetic, potential tourist spots</p> <p>C. Areas which constitute the habitat for any endangered or threatened species of indigenous Philippine wildlife (flora &amp; fauna)</p> <p>D. Areas of unique historic, archeological, geological or scientific interests</p> <p>E. Areas which are traditionally occupied by cultural communities or tribes</p> <p>F. Areas frequently visited and/or hard hit by natural calamities such as floods, typhoon, volcanic activity</p> <p>G. Areas with critical slopes</p> <p>H. Areas classified as prime lands</p> <p>I. Recharged areas of aquifers, water bodies</p> <p>J. Mangrove/coral reef areas</p>	<p>A. Backyard animal farms not exceeding 5,000 birds, or 2 sows with 20 pigs, or 5 head of cattle</p> <p>B. Rice or corn mills with capacity of not more than 1 ton/hr.</p> <p>C. Butterfly farming with area not more than 1,000 sq.m.</p> <p>D. Flowers/ornamentals production and sale including landscaping</p> <p>E. Garment manufacturing (without dyeing)</p> <p>F. Organic compost/ fertilizer making not exceeding 10,000 bags (50kg@)/annum)</p> <p>G. Cottage industry</p> <p>H. Sari-sari stores</p> <p>I. Residential houses or commercial buildings</p> <p>J. Importation or purchase of equipment (e.g., tractors)</p> <p>K. <i>Kalakalan 20</i> projects established through R.A. 6810, with 20 or less employees, PhP500,000 total assets at time of registration, not located in MManila or highly urbanized cities</p>

The Procedural Manual for EIS system specifically requires the following before the ECC issuance: locational/zoning clearance from (HLURB/LGU), water permit/certificate of water availability from (NWRB/Water districts), and certificate of eligibility for conversion from agricultural to non-agricultural lands from DA. Legal bases for zoning include the protection of National Integrated Protected Areas (NIPAs) (RA 7586), Strategic Agricultural and Fisheries Development Zones (SAFDZs in R.A 8435), sites for socialized housing (R.A. 7279), the Building Code (P.D. 1096) where compliance with land use and zoning regulations is required for the issuance of building permit.

## **PUBLIC PARTICIPATION**

The Local Government Code (LCG) of 1991 harnesses local participation in environmental management. It provides for the integration of environmental planning in local planning and management with consideration of the following factors: 1) responsiveness to the people; 2) flexibility; 3) technical competence or feasibility; and 4) coordination.

LGC also provides for mandatory consultation of national government agencies (NGAs) or government-owned and controlled corporations (GOCCs) authorizing or involved in planning and implementation of any project or program with environmental implications with LGUs, NGOs, and other sectors concerned. They have to explain the goals and objectives of the project or program, its impact upon the people and the community in terms of environmental or ecological balance, and the measures that will be undertaken to prevent or minimize the adverse effects thereof. The provision pertains to projects that may cause pollution, climatic change, depletion of non-renewable resources, loss of cropland, rangeland, or forest cover, and extinction of animal or plant species.

Therefore, public involvement should be an integral part of EIA system to get the public perception and more details on local knowledge. This would be expressed most strongly at the community level since it is at this level where decisions have a direct impact on the members of the community. The growing demand by the community and government for public participation is due to the community members' familiarity with social, economic and environmental values that need to be reconciled and integrated in decision making, e.g., land and resource use, and application of resource management guidelines, and in monitoring their implementation (Commission on Resources and Environment 1995).

Project proponents should initiate public consultations early to incorporate the stakeholders' concerns and other issues in the EIA study and management plan. First round of consultations includes a summary of project description and objectives and potential negative impacts. The stakeholders are persons or groups who may be significantly affected by a project or undertaking, directly or indirectly (DAO 96-37). These may include:

- persons living or working within the identified impact (direct or secondary) area
- persons with properties in the impact area
- persons living or working within the boundaries of the impact area
- organized interest groups (e.g., NGOs, POs) operating in the impact area
- industry representative in the impact area
- LGUs with jurisdiction over the project site
- indigenous cultural communities in the area whose *priori* informed consent is needed for the utilization of their ancestral lands
- local institutions in the area
- concerned national agencies, e.g., HLURB, DOE, DTI, PAMBs, DAR, DA
- Persons or groups representing future generations to be impacted by the project

Individuals, groups, or organizations residing within the impact zones are given priority as stakeholders. Primary or direct impact zones refer to areas where the project will be located or traversed. Secondary or indirect impact zones refer to influence areas of the project that could be indirectly affected by the project.

### *The Role of Local Government Units*

The Procedural Manual for EIS has the following specific provisions concerning LGUS and the community:

- 1) The project proponent may consult with concerned LGUs (from barangay to the municipal level) in the identification of stakeholders.
- 2) Stakeholders include LGUs which may be significantly affected by a project or undertaking. Stakeholders in direct impact areas also include LGUs with jurisdiction over the project site, indigenous communities, and persons working and living within the area.
- 3) Scoping<sup>2</sup> sessions should be attended by a cross-section of stakeholders which include, among others, representatives of concerned LGUs (province, municipality(ies), barangay(s)).
- 4) Public meetings, as one form of scoping session, should be properly documented with the report duly signed by the proponent, representatives of DENR, LGUs, and the community.
- 5) The scoping report which would serve as the primary reference of the EIA and the review process should be signed by LGU and community representatives.
- 6) LGUs, through a barangay, municipal, or provincial resolution have to issue endorsement letters as proof of ecological and environmental soundness of a proposed project, and of its social equity and poverty alleviation promotion. However, endorsement by LGUs of proposed projects is not equivalent to social acceptability neither the absence of it does not imply the lack or absence of a project's social acceptability. It is only one of the key indicators.
- 7) On resolution of conflicts, one example of proof is negotiated agreements e.g., through a Memorandum of Agreement between the DENR, LGU, the proponent and other stakeholders.
- 8) The proponent shall provide the Mayors of the municipalities or cities who has jurisdiction over the project site with a copy of the EIS/IEE to be submitted to the environmental unit(s) or through the Municipal Planning and Development Officer (MPDO) or Planning Officer. For projects covering several municipalities, the Provincial Governor shall also be provided a copy through the PPDO.

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<sup>2</sup> *Scoping is the first and the most critical stage in the EIS system where information and assessment requirements are established to provide the proponent with the scope of work for the EIS.*

- 9) The multipartite monitoring team (MMT) composition, as to be provided by a MOA, should include, among others, representatives from LGUs (e.g., governor, mayor, councilor, barangay captain), NGOs, POs, and IPs. MMT is to monitor ECPs after the ECC issuance.
- 10) An EGF (Environmental Guarantee Fund) Committee to manage the EGF should include as members the following LGU representatives: Provincial representatives appointed by the Governor and confirmed by the *Sangguniang Panlalawigan*, municipal representatives appointed by the Mayor and duly confirmed by the *Sangguniang Panlungsod*, and Barangay Chair or an appointed representative confirmed by the Barangay Council.
- 11) Among others, LGUs concerned (Municipality/City Mayors and Provincial Governor, whenever applicable) shall be provided copy of the duly issued ECC within 15 days from the date the ECC is available for release to the proponent.

## **EIA SYSTEM: EXPERIENCES AND LESSONS IN BUKIDNON<sup>3</sup>**

### *Land Use Trends*

EIA addresses sustainable, rational and judicious utilization of land resources, thus, land use planning and zoning are important considerations. In Bukidnon province, the total land area of 829,378 hectares<sup>4</sup> is 60% is forestland and 40% alienable and disposable land. Production land comprises around 51% while protection land covers almost 49% (Table 3). Of the total production land, sustainable land area comprises 78%, 5% is open to development opportunities while over 16% (about 70,433 ha) is no longer sustainable<sup>5</sup>. About 82% of protection lands are not under NIPAs while 9% is severely eroded, thus must be accorded appropriate attention.

Based on the Comprehensive Land Use Plan (CLUP) which serves as guide in land use planning of the municipalities in Bukidnon, the total land area currently used for agriculture (302,987 ha) has gone beyond the proposed area (277,430 ha) for the sector. Existing land area for utilities (11,978 ha) such as water system facilities and

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<sup>3</sup> Bukidnon is the study site of SANREM CRSP-Southeast Asia. It is a province in the Mindanao region at the southern part of the Philippines.

<sup>4</sup> This figure is officially used in Bukidnon provincial planning and by DENR. Most of the municipalities use data on land area certified by the Department of Budget and Management (DBM) and Department of Finance (DOF) for Internal Revenue Allotment (IRA).

<sup>5</sup> Sustainable lands are those being used in accordance with its suitability, e.g., suitable for cultivated annual crops, and being used for cultivated annual crops. Lands for development opportunity are those being used at a level of intensity that is below the level it is suitable for, e.g., suitable for irrigated rice but being used for cultivated annual crops. This is also sustainable land use. Not sustainable lands are those being used at a level of intensity that is in excess of the suitability for use; e.g., suitable for perennial tree and vine crops but being used for cultivated annual crops.

infrastructure facilities such as highways has also gone beyond the proposed area of 8,560 ha.

**Table 3. Land resource management and land use categorization, Bukidnon, 2002.**

Land Use Category	Area (ha)	Total	%
Alienable and Disposable land		336,412	40.56
Forestland		492,966	59.44
Classified forest	184,199		(37.37)
Forest reserve	39,740		
Military reserve	48,218		
Communal forest	2,944		
National forest	31,297		
Proclaimed watershed	61,500		
Communal pasture	500		
Unclassified forest	308,767		(62.63)
Total land area		829,378	
Production land		426,278	51.36
Within A&D land	201,019		(47.16)
Sustainable	132,841		
Development opportunity	12,613		
Not sustainable	55,565		
Within forestland	225,259		(52.84)
Sustainable	201,752		
Development opportunity	8,639		
Not sustainable	14,868		
Protection land		403,700	48.64
NIPAs	31,297		
Non-NIPAs	332,570		
Severely erode areas	39,833		
Total land area		829,978	

Source: Bukidnon Provincial Physical Framework Plan, 1993-2002, pp. 150.

Local constituents claim that Bukidnon province is an ecologically critical area based on the following grounds:

1. Bukidnon is generally a watershed and the water running down to the rivers of neighboring provinces comes from the province. It would not be safe for any industry generating solid or liquid wastes as this could pollute the rivers and have a domino effect if the watershed is not sustained.
2. It is an area prone to lahar/volcanic activity being near Musuan peak.
3. There are forest reserves and protected areas (under NIPAs) including Mt. Kitanglad in the area.
4. About 68% of the province has slopes above 18% and about 52% has slopes above 30%, thus susceptible to erosion. Bukidnon has a denuded area of about 400,000 ha all located in the uplands.
5. It is occupied by indigenous communities.

Claiming Bukidnon is an ECA, local government officials assert that projects that will be located in the province have to go through the EIS System to obtain an ECC for the primary reason. But DENR has not issued any formal declaration of the ECAs in Bukidnon. Apparently, DENR decides on the basis of individual ECC application.

Meanwhile, the provincial government has formulated a Bukidnon Watershed Management Framework Plan that serves as the basis for provincial government in coordinating programs and projects relating to water management. It also has a Provincial Forest Framework Plan delineating the watersheds of the province for forest land use planning. However, these efforts are apparently independent of DENR’s system of identifying ECAs.

Furthermore, for agro-industrial and special projects to obtain zoning clearance in Bukidnon the following documents (among others) are required: affidavit of non-objection from neighbors (within 1 km radius); DAR clearance (in case of conversion); description of industry; clearance from EMB (in case the project emits odor and air pollution); affidavit of non-expansion (in case of project which is not allowable); barangay clearance issued by the barangay chair; barangay resolution approving the proposed project. Zoning clearance is required in the ECC application but clearance from DENR that the area is not ECA is apparently not part of the requirement.

*Local Policy Environment*

Aside from land use policies, other major policies recently formulated in Bukidnon include the formulation of the Bukidnon Environment Code, creation of BENRO under the Provincial Office and the Multipartite Monitoring Team (MMT) to monitor ECC compliance (Table 4). MMT was officially sanctioned by DENR-EMB to lead the monitoring activities of ECC holders.

The Governor also harnessed partnership with NGOs. Through negotiation, 56 NGOs and POs formed a federation called Bukidnon NGO Forum and have it accredited. NGOs now are very active and have been lobbying with LGUs to come out with environmentally related ordinances and resolutions.

**Table 4. Major environment-related policies, Bukidnon.**

Policy	Provision
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EMB Regional Special Order No. 50-2003	Creating of a Multipartite Monitoring Team (MMT) in Bukidnon
Executive Order No. 44, Office of the Governor (Jan. 2003)	Amending membership of the Local Multi-Sectoral Environmental Monitoring Task Force (LMEMTF)
Resolution No. 2003-146, Sangguniang Panlalawigan (April 1, 2003)	Calling for a 3-year moratorium on the expansion of the industrial-commercial crops in Bukidnon
Executive Order No. 37, Office of the Governor (Sept. 2002)	Creating the Executive Committee (Execom) of the Bukidnon Watershed Protection and Development Council (BWPDC)
Executive Order No. 11, Office of the Governor (Nov. 2001)	Creating the LMEMTF
Resolution No. 2001-090, Sangguniang Panlalawigan (March 27, 2001)	Resolution enacting an Ordinance adopting and approving the Bukidnon Environment Code and creating the Bukidnon Environment and Natural Resource Office (BENRO)
Executive Order No. 129, Office of the Governor (Aug. 2000)	Reorganizing the Technical Advisory Committee and Secretariat of the Bukidnon Watershed Protection Council (BWPDC)
Memorandum Order No. 270, Office of President F. V. Ramos (1995)	Creating BWPDC under the Provincial Office of Bukidnon

### *The ECC Holders*

From 1991 to 2003, the cumulative number of projects granted ECC by DENR totals 851 (Table 5). This refers to ECPs and projects located in ECAs. More than 50% of the projects got their ECCs between 2000 and 2003. The further streamlining of the EIS system in late 1990s must have contributed to this.

**Table 5. Number of Environmental Clearance Certificates (ECCs) issued, Bukidnon, 1991-2003.**

Year	No. of ECCs	Cumulative
1991	2	2
1992	10	12
1993	39	51
1994	35	86
1995	71	157
1996	98	255
1997	55	310
1998	43	353
1999	51	404
2000	60	464
2001	120	584
2002	63	647
2003	204	851
Total	851	

Source: DENR-EMB, Region 10

The number of registered establishments listed in the Department of Trade and Industry provincial office in Bukidnon totals 868 as of 2003. But it is difficult to

reconcile this figure with the total number of ECC holders as this may include establishments not required to obtain ECC, e.g., retail or *sari-sari* stores.

Valencia has the highest number of ECCs issued followed by Malaybalay and Manolo Fortich (Table 6). In these municipalities, existing lands for utilities have exceeded the areas proposed for such use.

**Table 6. Number of Environmental Clearance Certificates (ECCs) issued, by municipality, Bukidnon, 1991-2003.**

<b>Municipality/City</b>	<b>No.</b>	<b>%</b>
Valencia	186	21.86
Malaybalay	138	16.22
Manolo Fortich	130	15.28
Impasug-ong	74	8.70
Libona	59	6.93
Maramag	45	5.29
Quezon	39	4.58
Lantapan	30	3.53
Sumilao	26	3.06
Baungon	22	2.59
Don Carlos	16	1.88
Talakag	16	1.88
Kibawe	10	1.18
Damulog	8	0.94
Cabanglasan	8	0.94
Malitbog	8	0.94
Kitaotao	7	0.82
Dangkagan	6	0.71
Kalilangan	6	0.71
Pangantucan	5	0.59
San Fernando	5	0.59
Kadingilan	4	0.47
Province of Bukidnon	3	0.35
<b>Total</b>	<b>851</b>	<b>100.00</b>

Source of raw data: DENR-EMB, Region 10

About 30% of the ECC holders belong to the poultry and livestock sector. Only 4% of total ECC holders account for agricultural plantations (e.g., banana, pineapple, and sugar cane) and 3% for water-related projects such as irrigation facilities (Table 7). The provincial government of Bukidnon also obtained ECCs for some of its infrastructure projects such as water supply projects. In terms of land use, sugar cane occupies about 14% of the total area devoted to crop production in Bukidnon, pineapple – around 5.3% and banana - 1.6%.

But reportedly, the agricultural sector is a major contributor to water pollution in Region 10 in terms of Biochemical Oxygen Demand (BOD). Of the total BOD generation (95,000 mt/year) in the region, 63% come from agriculture. On a national scale, Region

10's agricultural sector ranks fourth (along with Region 3, Central Luzon) accounting for 9.1% of the total BOD generation from the sector (DENR-WB 2003).

**Table 7. Number and percent distribution of Environmental Clearance Certificates (ECCs) issued, by type of project, Bukidnon, 1991-2003.**

Type of Project	2003	%
Poultry	182	21.39
Piggery	51	5.99
Other livestock	31	3.64
Banana plantation	17	2.00
Pineapple plantation	7	0.82
Sugarcane plantation	12	1.41
Rubber plantation	1	0.12
Water-related projects	28	3.29
Land conversion	27	3.17
Saw mill	62	7.29
Rice/corn/feed mills	40	4.70
Housing/Subd.	41	4.81
Network, etc.	20	2.35
Gas station	18	2.11
Hospital/Clinic	9	1.05
Sand and gravel, mining, quarrying	199	23.38
Others	106	12.46
Total	851	100.00

Source of raw data : DENR-EMB, Region 10

In Bukidnon, there were reported complaints about big plantations. For instance, complaints about banana plantations include solid wastes such as plastic for wrapping, rotten banana reject, piling up of wastes near the creek/river system, thus, posing risk of generating bacteria down the river systems. The management was claiming that the solid waste materials are not toxic, or was planning to ship them to other areas for recycling. Other mitigating measures claimed are chopping the rotten banana and spreading out the garbage, digging and burying the wastes.

Another reportedly destructive activity in plantation is deep plowing by bulldozer in sloping areas. There was an incident when during heavy precipitation, the pulverized soil and water went downstream causing flashflood and siltation that resulted in loss of properties. Business permits were allegedly issued without the approval of the Land use committee.

For poultry and piggery, odor and solid and water wastes are the main concerns, thus, CLUP assigns zoning. Piggery is also covered by P.D. 984 - Pollution Control Law. The mitigating measures are constructing lagoons where water would come out but made less odorous. However, piggery operators claimed that there is no effect on water. There were reports of chemical contamination in cows and horses but these were disproved by

NBI. The company involved, for humanitarian reasons, still extended financial assistance to the victims.

## **CONSTRAINING FACTORS TO AN EFFECTIVE EIS IMPLEMENTATION**

Major policies formulated in Bukidnon in response to environment-related concerns include the formulation of the Bukidnon Environment Code, creation of BENRO under the Provincial Office and the Multipartite Monitoring Team (MMT) to monitor ECC compliance, and active partnership with NGOs. However, the persistence of the above cited complaints about the ECC holders raises concerns on how the EIS process was conducted. There were reported violations of the different industries and there were several cases of soil erosion, siltation of creeks and rivers. Various stakeholders in Bukidnon pointed a number of interrelated factors constraining EIS implementation at the local level.

### *Inadequate perception and understanding of the ECC process*

Interview with 12 Municipal Planning and Development Officers revealed that majority are familiar with the EIS policy and procedures (Table 8). However, there is a low level of awareness of ECPs and ECAs in their respective localities and of compliance with the ECC system. There is also a low level of LGU participation before or after the ECC issuance (Table 9).

From an LGU executive perspective, the ECC process is not properly implemented as it is not clearly understood. There are LGUs which issue business permit before ECC while others require ECC first before the permit. This is due to the ambiguity in guidelines, procedures, and coordination between agencies concerned. ECC compliance is thus, not viewed in the primary context of environment protection but more of a requirement, e.g., by LGUs in issuing business permit in order to start operation, by banks and financial institutions in loan applications.

One reason for this ambiguity is the flexibility provided by the Procedural Manual for EIS as far as related documents required from other agencies are concerned. There are certain related permits which a proponent may need to secure from other government entities as part of the EIS or IEE or as a pre-requisite to project operation which may form part of the conditions for ECC. Some agencies ask for approved ECCs prior to their issuance of the relevant permit while other entities require such permits independently of the EIA process and as part of their licensing authority.

**Table 8. Knowledge of LGU Planning and Development Officers on EIS System, Bukidnon (n=12).**

<b>Item</b>	<b>No.</b>	<b>%</b>
Familiar w/ EIS Policy		
Yes	11	91.67
No	1	8.33
Familiar w/ EIS procedures		
Yes	8	66.67
Not much	2	16.67
No	2	16.67
Knowledge of guidelines, laws, related to EIS in their LGU		
Yes	1	8.33
None	3	25.00
Do not know	3	25.00
No response/comment	5	41.67
Knowledge of projects requiring ECC/EIA compliance		
Yes	5	41.67
No	1	8.33
No response/comment	6	50.00
Knowledge of ECPs in locality		
There are ECPs	5	41.67
There is no ECP	2	16.67
All projects are ECPs	1	8.33
No response/comment	4	33.33
Did these ECPs obtain ECC?		
Yes	5	41.67
No response/comment	7	58.33
Knowledge of ECAs in locality		
There are ECAs	4	33.33
There is no ECA	1	8.33
No knowledge	1	8.33
No response/comment	6	50.00
Knowledge of projects in ECAs		
Yes	5	41.67
No knowledge	1	8.33
No response/comment	6	50.00
Did these projects obtain ECC?		
Yes	3	25.00
Only new projects	1	8.33
No	2	16.67
No response/comment	6	50.00

**Table 9. LGUs participation in the EIS System, Bukidnon (n=12 LGU PDOs)**

Item	No.	%
LGU Participation/Consultation		
Before ECC issuance		
Yes	5	41.67
No	3	25.00
No response/comment	4	33.33
After ECC issuance		
Yes	0	0.00
No	12	100.00
Public hearing		
Yes	3	25.00
None	5	41.67
No response/comment	4	33.33
Was the involvement effective?		
Yes	5	41.67
No	2	16.67
Not sure (supposedly)	1	8.33
No comment/response	4	33.33

*Weak role of LGUs and inadequate determination of social acceptability*

Social acceptability becomes political in connotation, being determined by the LGU executive, e.g., the barangay captain and municipal mayor. ECCs are issued without an adequately represented stakeholders' meeting or consultation, or scoping. LGU's involvement is merely in the issuance of clearance or certification, particularly for small projects, from the barangay, municipal and provincial level. Local officials are the only ones consulted but the certification issued states that the constituents have been consulted and there is no objection/opposition. It is not really the decision emanating from the community if, for example, the barangay chair would convene only the barangay council.

In cases where barangay assembly or public consultations are organized, the barangay captain spearheads the activity and attendance is usually determined by the local officials. The barangay certificate serves as the basis for the issuance of business permit by the Mayor's office. Public opinion is not adequately expressed as the proponent will highlight the good points of the project. Resolving conflict is just a simple dialogue where proponents present to the LGUs or community some mitigating measures.

*Prioritization for economic over environmental concerns*

Local executives tend to be concerned with the mere entry of a project anticipating the economic benefits and overlooking any potential degradation. For instance, the proponent obtains a certification from the barangay chair by assuring employment for local constituents.

Similarly, among industries, the focus is on generation of profit which is facilitated either by the lax terms and conditions in ECC or inadequate monitoring on ECC compliance.

*Inadequate identification of ECAs and lack of coordination in regulating land use*

There is no clear delineation of ECAs as there are no clear guidelines in identifying ECA. For instance in multi-development plantation where there is plantation, processing, irrigation, water impounding, building, road construction, there are no clear guidelines in identifying ECA. Banana is included because of drip irrigation and it is included in natural resource issues.

ECAs are declared by DENR but this is not coordinated with the issuance of locational/zoning clearance by HLURB/LGU, certificate of eligibility for conversion from agricultural to non-agricultural lands by DA, and building permit. There are other legal bases for zoning such as the protection of NIPAs Areas (RA 7586), Strategic Agricultural and Fisheries Development Zones (SAFDZs in R.A 8435).

*Uncoordinated monitoring activities*

EMB has 2 divisions: EIA and Environmental Quality (EQ) Division. The Pollution Division is under EQ Division but monitoring is done by the EIA. Pollution Division does permitting for pollution control facilities. Under PD 984, the Pollution Control Law, establishments like piggery, industries, poultry, have to get ECC which requires further permit to operate their pollution source equipment or control facilities. For example, BUSCO has waste water, so they have to get permit for their waste water treatment facilities. These will be monitored by the Pollution Control-EQ Division to check if they pass standards.

Inspection by EQD is different from monitoring. EQD does it for permit issuances and renewal for one year, thus EQD monitors and checks water facilities. If inspection and water sampling is to be done on water quality, EQD collects sample and analyze and if it failed in sampling, then permit is not renewed and recommendations are given to meet commitment and timetable. Apparently, EQD has a separate set of activities without coordination with the EIA Division.

At the local level, Bukidnon has a strong multipartite monitoring team (MMT) chaired by the SP and vice-chaired by DENR, the first of its kind in the Philippines. MMT is normally chaired by DENR and vice-chaired by the LGU with members from LGUs, e.g., Vice Mayor, Chair of Committee on Environment. MMT in Bukidnon has been monitoring compliance of ECC holders based on complaints and reports from the municipal government. Due to limited time and personnel, scheduling monitoring activities is based on priorities, e.g., top 100 industries.

On the other hand, some LGUs lament the delegation of monitoring activities to the provincial MMT as this has constrained the capacity of the local monitoring task force at the municipal level. Before the Provincial MMT was created, this local task force could regular monitor ECC holders and could respond immediately to urgent concerns. With MMT, monitoring in specific localities depend on its schedule and priority.

Water quality monitoring by MMT is different from that of DENR-EQD, which is not multi-sectoral. Water quality monitoring is done and managed by an NGO, the Guardians of the Earth. It has personnel based at the Regional Office. During monitoring, that person prepares the gadget for monitoring. It should be done every six months but has not yet been a regular activity. Water samples are tested in Cagayan de Oro (a separate government agency from DENR). EMF and EGF are allocated by industries and handled by Guardians of the Earth. There is a MOA with EMB on EGF, in the event of damage.

#### *Limited information, education, communication (IEC) efforts*

Many of the problems in poor implementation of the EIS sytem are rooted to lack of knowledge about the process. Lack of community appreciation of the importance of the EIS system is due to weak IEC campaign. On the part of the project proponent, lack of transparency limits the knowledge of local constituents. Monitoring could be very adversarial and confrontational. There are ECC holders and projects which are not willing to be inspected or monitored.

### **FACILITATING FACTORS/STRATEGIES**

To get effective results from a locally-based and more participatory EIS system, the enabling factors and strategies are:

#### *Strengthening national policy on LGU's role in EIS system*

Similar to AO. 42-02 issued by the Office of the President, LGUs' role in the EIS process should be reinforced through a Presidential directive through the Department of Interior and Local Government (DILG). Currently, the Procedural Manual stipulating the role of LGUs and communities emanates from DENR. Alternatively, DENR and LGUs concerned could forge a MOA to such effect.

LGC provision on review of projects by LGUs should be strongly implemented, thus their technical capability has to be enhanced. The municipal environment and natural resource office (ENRO) should be also created to address such concerns. Environment officers in LGUs could serve as contact persons especially in technical review and assessment.

Furthermore, there should be a village-based or barangay-based NRM unit to address community-based participation. Inclusion of social science expertise in EA teams

would likewise be useful in identifying participant groups, design of consultation/participation strategies, conflict management and institutional analysis.

*Proper identification of ECAs to be reconciled with CLUP and watershed management plan*

DENR should issue a declaration of ECAs in a locality to aid in the CLUP of each LGU. Systematic mapping, e.g., GIS, of the ECAs would facilitate both EIS process and CLUP.

EIA must take into account the local level plan, e.g., provincial or municipal. The process should be rationalized. CLUP to assign zoning must be mandatory for each LGU to be approved by SB and SP to serve as guide in the EIA system to avoid possible conflict.

It should be made clear that zoning clearance issued by the Municipal Government Unit is required in the application for ECC. A land-based project proponent must first secure the approval of the Land Use System Committee in the Local Council before endorsement to the Office of the Mayor. The Committee must have representatives from the engineering, environment, and city planning office to inspect the site.

*Improved coordination in ECC processing*

Policy on issuance of ECC and business permit should be consistent and properly coordinated. ECC should be a pre-requisite for the issuance of building and business permits by the municipal government unit. While the ECC is being processed, the proponent could simultaneously prepare the other necessary papers for the building and business permits. Coordination, e.g., administrative arrangements between DENR and LGU should be enhanced. Application of original business permit and renewal must first be concurred by the provincial government in order to determine which business permits would pass through the EIS process. MMT could also review/assess renewal of the application.

*Enhancing IEC campaign on EIA/EIS system*

The public should be made aware of development plans to determine people's attitudes and interests and to gain their cooperation. Information dissemination should be timely, in a meaningful form, and accessible to the groups being consulted. There should be wide dissemination of information even before consultation begins. The local constituents should be made aware of their areas of intervention in the EIS process. Technical and non-technical training should be conducted to educate the local community on the appropriate questions to in public consultation.

IEC should also cover prediction and evaluation of impact of various projects that could aid the local community in public consultation. Experiences on EIS procedures and

guidelines for sectoral projects should be shared with local constituents. Results of consultation of participants, open houses, public hearing, written submissions, public surveys should be fed back to the community.

The people should know what the project is all about, pros and cons, advantages and disadvantages of the project. Experts from DENR and the LGUs have to be involved so that they will share their views on the negative impact and identify the mitigating measures to be installed, for example to avoid pollution in the area.

Medium for IEC may include local newspaper and broadcast. In Bukidnon, this includes: local papers such as Bukidnon Update, Central Mindanao Newswatch, Goldstar Daily, Bukidnon Journal; television such as ABS CBN TV; and radio such as DXB, DXBB, and Radio Ukay. The Philippine Information Agency-Region 10 could also be tapped.

#### *Properly coordinated monitoring activities*

The monitoring task force and EMB had to meet and level off. The Provincial monitoring task force was officially designated by DENR. MMT submits the findings to DENR RED through the Governor to make him aware of what is happening in the province. MMT's findings would not be elevated to DENR central office unless it passed through EMB. The local monitoring task force should be allowed to conduct its monitoring activities in its area of jurisdiction. The Provincial MMT thus should provide assistance to localities with a weak or without such local monitoring task force.

Other monitoring activities, e.g., on violation of conditions under the Building Code, should be handled by other agencies because they are more competent than DENR.

Moreover, there is a provision in the ECC on Environmental Monitoring (EMF) and Guarantee Funds (EGF). EMF is to cover cost of monitoring activities while EGF is to guarantee for certain destruction and damages to be caused by industries to certain individuals, families and communities. A local monitoring body should be created to manage these funds.

#### *Formulation of local policies and provision of administrative and funding support*

The government must provide some administrative and funding support to carry out consultation and participation, interest-based negotiation, establishing rules and procedures. Sustaining funds has to be observed by LGU. There should be a tripartite MOA, with DENR, industry and LGU as signatories stipulating that this EGF is intended for affected people. In most cases, consultation accounts for a mere fraction of total project preparation costs and a small percentage of EIA preparation costs (approximately 0.1 percent of total project costs (Brown and Mc Donald 1989).

ECC stipulation that industries should have a pollution control office must be reinforced. DENR has organized all pollution control officers (PCOs) of industries and

formed an NGO called Guardians of the Earth who handles EMF with DENR supervision. The project proponent should have a portion of its budget allocated to environmental purposes. As provided for by ECC, it should shoulder transportation expenses, food and honorarium.

Other local policy innovations are the Bukidnon Environmental Code of 2002, the Bukidnon Watershed Management Framework Plan and the Bukidnon Watershed Protection and Development Council (BWPDC). There are also proposals to be considered include regulating lease of lands, e.g., to corporate plantations, moratorium on land lease to any prospective or existing investors.

## **SUMMARY AND CONCLUSIONS**

The impact of land use and resource use decisions is often greatest at the local level where the people live. This is where public participation is most meaningful. This implies that significant and legitimate interests of stakeholders involved must be recognized and given consideration in the planning, implementation and conflict resolution process. To get effective results from local participation, there must be enabling administrative and funding support.

In summary, observations of the study showed that barriers to introducing and implementing EIA include:

1. Insufficient political will as indicated by low priority given to environmental concerns and closed process of decision making;
2. Limited societal support base as indicated by low degrees of activism and influence by public and community groups;
3. Narrow definition of issues as reflected in prevailing emphasis on economic benefits over environmental implications; and
4. Ambiguous/flexible guidelines in the EIS process.

In order to harness a locally-based and more participatory EIS system, the facilitating factors discussed could be summarized in the following agenda for action:

1. Strengthening policy framework for administration and enforcement at local level;
2. Improving coordination between industry/proponents, government and EIA agencies, and other stakeholders; and
3. Enhancing public involvement in the EIA/EIS process through a vigorous IEC campaign

Public involvement depends on the degree of which those involved are allowed to influence, share or control decision making. Information dissemination and proper coordination among stakeholders are essential conditions for this. Indeed, efforts have to be locally based as democratic local authorities are effective agents of change. If sustainable development is not practiced locally, it does not happen at all (Brown 1999).

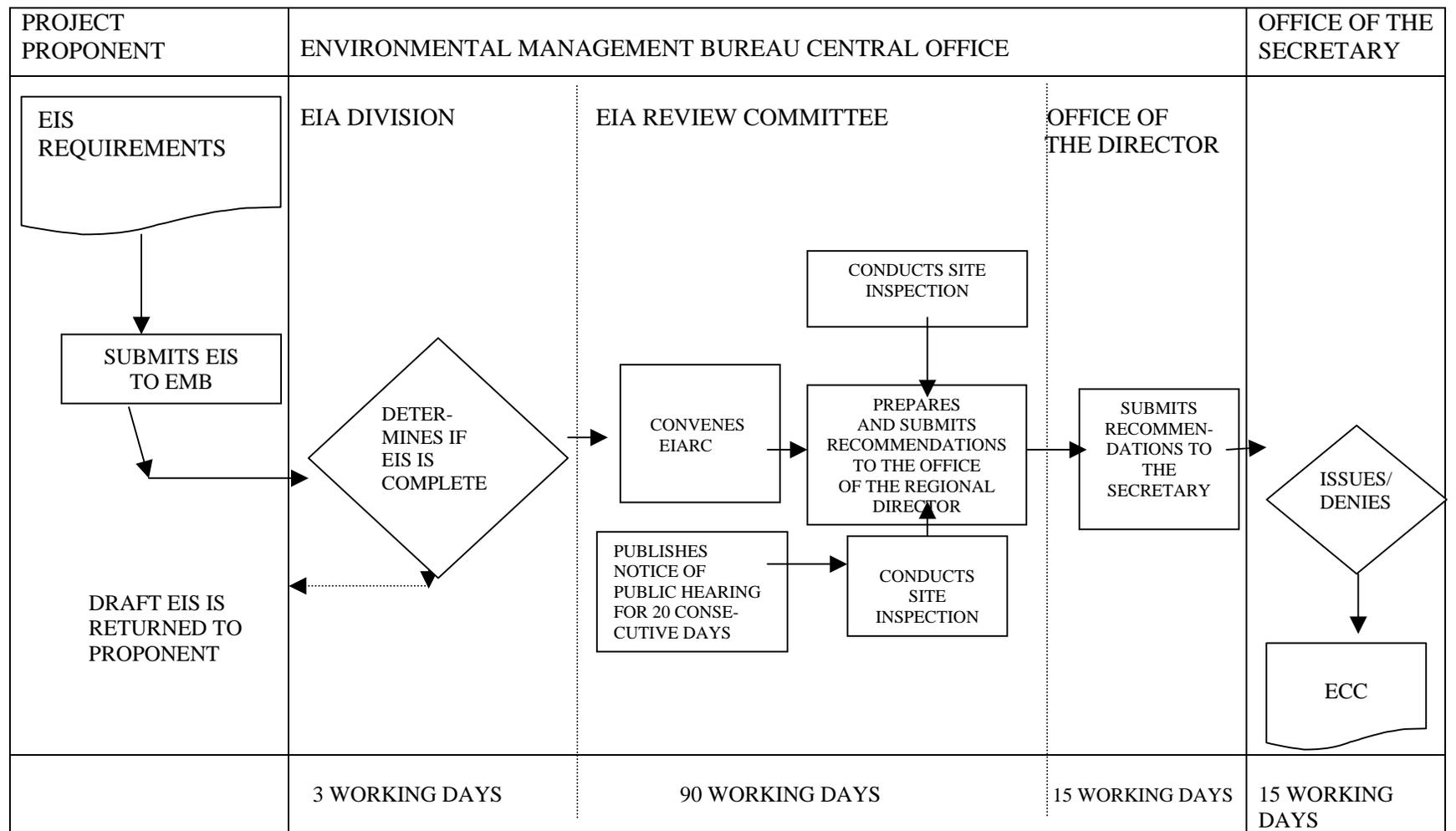
## REFERENCES

- Brown, V. 1999. Groundtruthing Sustainable Development, In Buckingham-Hatfield, S. and S. Percy (eds), *Constructing Local Environmental Agendas: People, Places and Participation*. Routledge, England, USA and Canada.
- Brown, A. and G. McDonald. 1989. Issues Raised in a Workshop on Environmental Assessment for Development Planning at Griffith University, July 1988, Brisbane, Australia.
- Buckingham-Hatfield, S. and S. Percy (eds). 1999. *Constructing Local Environmental Agendas: People, Places and Participation*. Routledge, England, USA and Canada.
- Clark, B. 1985. Aims and Objectives of EIA, Paper presented at the International Seminar on Environmental Impact Assessment, 14-17 July, University of Aberdeen, Scotland.
- Commission on Resources and Environment-British Columbia. 1995. The Provincial Land Use Strategy: Public Participation. Volume 3.
- DENR-EMB. 2003. Training/Seminar on Environmental Impact Assessment (EIA) Techniques, June 18-19, Cagayan de Oro City.
- DENR. 1997. Procedural Manual for D.A.O. No. 96-37.
- DENR-EMB-UNDP 1993. Executive Summary of the Environmental Planning and Management for Sustainable Development.
- DENR-EMB-Madecor-ADB. 1993. Public Participation in EIA.
- DENR-EMB-World Bank. 2003. Philippines Environment Monitor 2003.
- Hollick, M. 1986. Profile: Environmental Impact Assessment: An International Evaluation, *Environmental Management* vol. 10, No. 2. pp.157-178.
- Patterson, A. and K.Theobald 1999. Emerging Contradictions: Sustainable Development and the New Local Governance, In Buckingham-Hatfield, S. and S. Percy (eds). 1999. *Constructing Local Environmental Agendas: People, Places and Participation*. Routledge, England, USA and Canada.

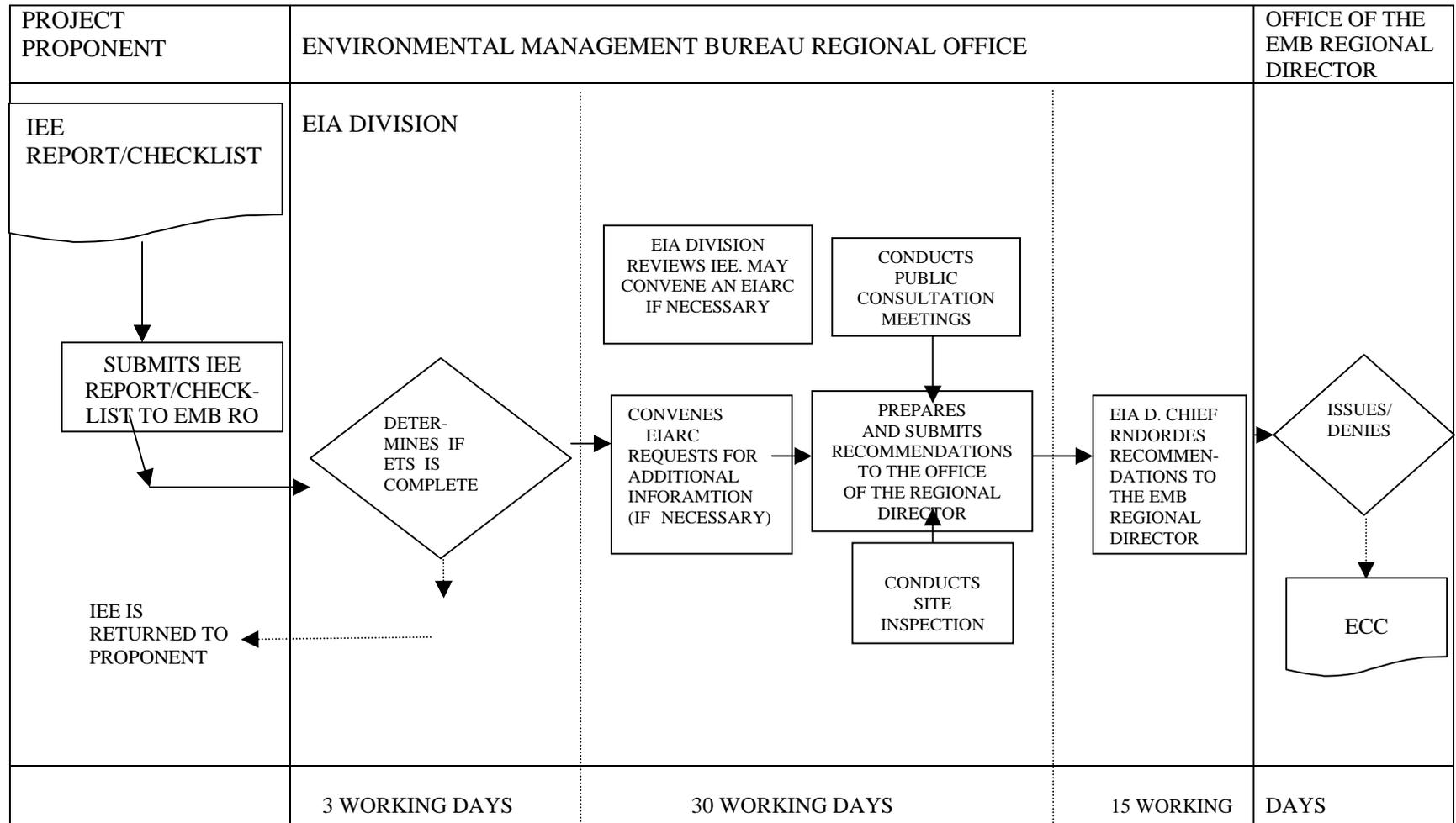
Evans, B. and S.Percy 1999. The Opportunities and Challenges for Local Environmental Policy and Action in the UK, In Buckingham-Hatfield, S. and S. Percy (eds). 1999. *Constructing Local Environmental Agendas: People, Places and Participation*. Routledge, England, USA and Canada.

World Bank. 1999. Public Consultation in the EA Process: A Strategic Approach, in Environmental Assessment Sourcebook Update, May, No. 26.

APPENDIX A. PROCESSING TIME FOR ECC APPLICATIONS FOR ECPs.



APPENDIX B. PROCESSING TIME FOR ECC APPLICATION FOR PROJECTS IN ECAs.



APPENDIX C. PROCESSING TIME FOR CNC APPLICATIONS FOR NON-COVERED PROJECTS.

