



## FFTC Agricultural Policy Platform (FFTC-AP)

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### **The Philippine Environmental Impact Statement System: Balancing Socio-Economic Growth and Environmental Protection<sup>1</sup>**

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#### **INTRODUCTION**

In the recent months, much has been said about mining and its impact on the environment and the economy. The focus has been on the on-site and offsite negative externalities generated by these activities. The hullabaloo points to the important role of regulation of resource-extracting economic activities, its implication on the economy of the country and of the world, and on its effect on the environment.

The strong yet delicate relationship between the economy and the environment has always been a subject of discussion. To attain sustainable development, economic agents and natural resource managers must strive to strike a balance between economic activities and the use of the country's natural resources. Most production activities require inputs from the natural resource base, be it minerals, land, water, forest products, and fishes. This is true for all sectors, including agriculture. The level of availability of natural resources influences the price of the economic good, and thus affects the level of its production and supply in the market. Resources become depleted as a result of economic activities due to many causes such as extracting beyond their maximum sustainable yield, weak property rights, public good nature of the resources, the lack of regulation, and inappropriate pricing due to subsidies.

The regulatory framework for the judicious use and protection of the country's natural resources is embodied in the Philippine Environmental Impact Statement System (PEISS). The PEISS law traces its legal roots under Presidential Decree (PD) 1151 of 1977 where the

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<sup>1</sup> Policy paper submitted to the Food and Fertilizer Technology Center (FFTC) for the project titled "Asia-Pacific Information Platform in Agricultural Policy". Policy papers, as corollary outputs of the project, describe pertinent Philippine laws and regulations on agriculture, aquatic and natural resources.

country's environmental policy required sponsors of all government and private projects affecting the quality of the environment to prepare an assessment of the project's environmental impacts. During the same year, the Philippine Environmental Code was promulgated via PD 1152 which required all land use management regulating or enforcing agencies to consider significant environmental impacts as well as other aspects of locating industries.

The Philippine Environmental Impact Statement System was formalized in PD 1586 known as Establishing the Environmental Impact Statement Systems including other Environmental Management and Related Measures in 1978. In particular, Section 4 of the law provides that no person, partnership or corporation shall undertake or operate any such declared environmentally critical project or area without first securing an Environmental Compliance Certificate (ECC). Today, an ECC is a document issued by the Department of Environment and Natural Resources (DENR) certifying that the project has complied with the EIS system and has committed to implement its approved Environmental Management Plan to address the environmental impacts it will generate (DENR-EMB, 2014).

PD 1586 centralized the EIS System under the (then) National Environmental Protection Council (NEPC) and authorized the President and the NEPC to proclaim projects and activities subject to the EIS system. Its implementing rules and regulations (IRR), which took effect in 1979, defined the parameters for the environmental impact system; established penalty structures for non-compliance; created the environmental impact assessment review committee; set the procedures for implementing the EIS system; provided for exemptions, and established procedures for public hearings related to an EIS.

Two years later, Presidential Proclamation (PP) 2146 defined the environmentally critical areas (ECAs) and environmentally critical projects (ECPs) within the scope of the EIS system. In 1983, NEPC Office Circular No. 3 provided the technical definition and scope for environmentally critical projects and areas.

Revisions of the IRR for PD 1586 was made in 1984. The revision limited the scope of the environmental impact statement to environmentally critical projects. The revisions also set the requirements for environmentally critical areas, provided for the fee structures as well as the compliance monitoring system. The revised IRR also provided for closures of projects operating without ECC and authorized the NEPC to cancel the same if violations of conditions or other standards and rules and regulations are found to have been committed by the ECC holder.

The Philippine bureaucracy was reorganized during the administration of President Corazon Aquino. For the Department of Environment and Natural Resources, this saw the abolishment of the NEPC and the transfer of its powers and functions to the Environment and Management Bureau (EMB).

Further refinement to the EIS system was made following the amendment of the IRR of PD 1586 in 1992. Under this revision, certain EIA functions were decentralized to DENR regional offices. More importantly, the revisions provided for public hearings and established the concept of multi-sectoral monitoring team and the Environmental Guarantee Fund.

Since then, the IRR for PD 1586 has undergone several updating and revisions, including DAO 30 Series of 2003 and its IRR, and the most recent EMB Memorandum Circular 005 dated July 2014 known as the Revised Guidelines for Coverage Screening and Standardized Requirements Under the Philippine EIS System.

## **THE ENVIRONMENTAL IMPACT SYSTEM STATEMENT**

## **A. Environmental Impact Assessment**

Environmental impact assessment (EIA) is the process of identifying, predicting, evaluating and mitigating the biophysical, social and relevant socio-economic effects of development proposals or activities before decision are being made for their approval. EIA is required to ensure that environmental considerations are taken into account in the decisions to implement the projects, such that the adverse significant effects of the proposed projects are anticipated, avoided or offset. EIA also ensures that the productivity and capacity of the natural systems and the ecological process are protected. Involvement and input of communities and stakeholders that will be affected by the proposed project will be ensured in the process.

EMB MC 005 of 2014 formally defines EIA as “the process that involves evaluating and predicting the likely impacts of a project (including cumulative impacts) on the environment during construction, commissioning, operation and abandonment. It also includes designing appropriate preventive, mitigating and enhancement measures addressing these consequences to protect the environment and the community’s welfare”.

Thus, EIA is the government’s tool for sustainable development. The long term objectives of the EIA is therefore to protect human health, avoid irreversible changes and serious damage to the environment thereby safeguarding natural resources and ecosystems in the affected areas.

## **B. Process of EIA**

Fig. 1 provides the summary flowchart of the EIA process. These steps are described below:

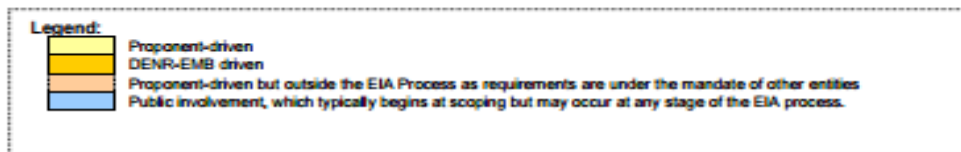
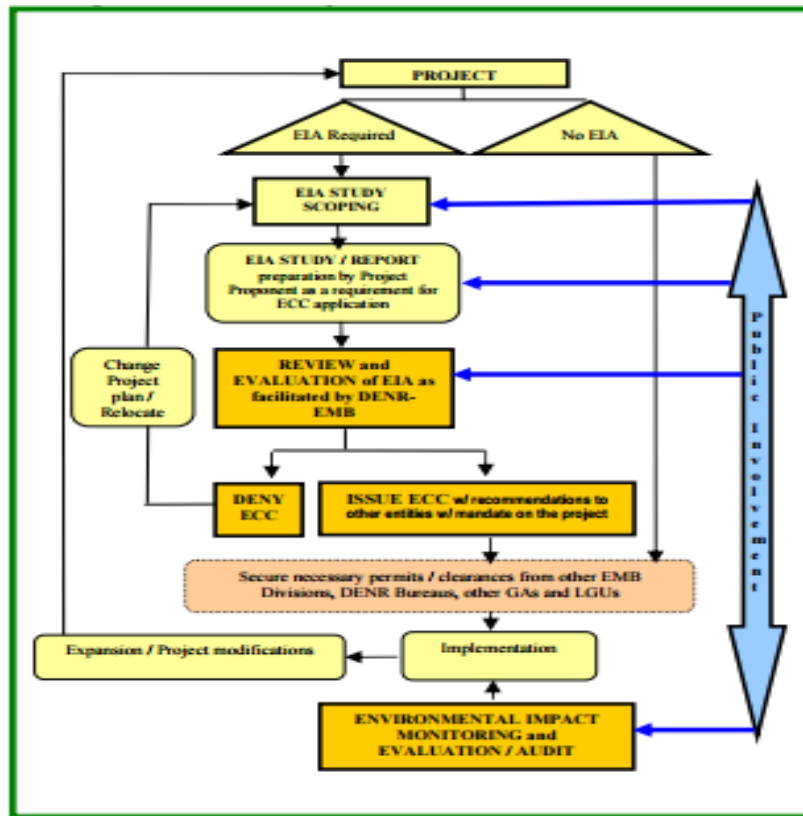


Fig. 1. Summary flowchart of the EIA process (Source: DAO 2003-30, 2005)

### 1. Screening

Screening determines whether or not a project is covered by the PEISS. The main criterion for screening is guided by the type of project or activity to be conducted, and its location. Screening will determine what type of report will be submitted by the proponents. The complete classification of projects and their corresponding report requirement is described in this paper under section II.C Types of EIA Report and Covered Projects.

### 2. Scoping

Scoping is an activity that will set or map the boundaries or limits of the assessment to be conducted. During this activity, collection of baseline data is done, and alternatives are discussed. Possible impacts of the project are also tackled. Scoping is an activity that the proponent conducts together with the community and the other relevant stakeholders. It is considered very

important because this is where the communities are informed of the project, and where they are offered the opportunity to input into the projects.

### **3. EIA Study and Report Preparation**

As already mentioned, EIA is the process of identifying and predicting impacts of the project on the biophysical and social environment. It is the basis for the proponent and the decision-makers to push through or not with the project, or of the regulatory agency to issue the required ECC. By its very definition, the identification, prediction and analysis of impacts would provide decision makers with the information on the nature, extent, magnitude, timing, and type of impact the project will generate. Decision makers, either the proponent or the regulatory agency will decide, in accordance with a set of criteria, their knowledge and expertise, and other factors; findings of the EIA will be measured against these criteria. The Environmental Management Plan (EMP), developed based on the findings of the EIA will have a very strong influence on these decisions, because EMP must demonstrate how the environmental issues and concerns will be taken addressed. Needless to say, EIAs must be implemented in a multi- and inter-disciplinary manner. It must also be characterized by the integration of social, economic and biophysical environmental impacts to the maximum extent possible.

In general, the EIA study report should contain the following components:

- a. *Description of the project.* This involves describing the purpose and physical characteristics of the project or activity, the land use requirements and other physical features of the project during construction, when operational, and after the project has finished or will have ceased its operation. The description should also include the production process including identifying the raw materials to be used, discharges, emissions, noise, light, heat, and residues, among others.
- b. *Description of the environment.* This include describing the various parameters in the environment surrounding the project, including but not limited to population, flora and fauna, soil, water, air, landscape, policy, economic environment, and others.
- c. *Assessment of the effects of the project on the environment.* This should include assessing the direct and indirect, secondary, cumulative, medium, short-term, long-term, temporary, positive and negative impacts. These impacts can be on human beings, man-made structures, flora, fauna, land, water, air, climate and others. Methods may include mathematical modelling, systems analysis, statistical analysis, transect methods, and others.

Methods of assessing impacts may also include expert opinion or use of expert panel; consultations; questionnaire for use in surveys to gather information from the past, present as well as future project. It may also consider checklist as a systematic way to ensure all events are considered; spatial analysis by using maps; network and systems analysis; matrices; carrying capacity analysis to determine thresholds, and modelling or quantification of cause and effect relationships.

Impacts may either be direct or indirect, and both should be determined. Direct impacts are effects due to the project, while indirect impacts are those that are not a direct result of the project and are also known as second or third level impacts. Other factors to be considered in determining effect of the project are cumulative impacts and impact interactions. Cumulative impacts are those that result from the incremental change caused by other past, present or

foreseeable action together with the project. Impact interactions, on the other hand, are the reactions between project impacts whether between impact of just one project or between the impacts of other projects in the area.

Management Plan is an important section that provides details on how to enhance positive impacts or to prevent, mitigate, compensate, provide contingency and monitor the negative impacts.

#### ***4. EIA Report Review and Evaluation as Facilitated by the EMB.***

Decision making involves the issuance of an ECC, or if the report is found wanting, denial, where the proponent may change project plan or relocate project site.

#### ***5. Monitoring, Validation and Evaluation/Audit***

This step of the EIA process is necessary to ensure that the proponents meet the conditions set forth in the ECC and the environmental management plan. It is under this step that the effectiveness of the proposed prevention and/or mitigation measures as proposed in the EMP are examined, particularly in relation to the actual impacts from the project implementation. Thus, there is a need for a continual updating of the EMP as a result of the monitoring, validation and evaluation.

### **C. Types of Environmental Impact Assessment Report and Covered Projects**

Not all projects will be required to submit a full blown EIA study report. Discussed below are the different reports that are required, depending on the type of project being proposed.

#### ***1. Environmental Impact Statement (EIS) for new, single project under Categories A and B.***

This is a document of studies on the environmental impacts of a project including discussions on direct and indirect environmental effects on people, ecology and environmental integrity.

The report contains EIS summary, project description, matrix of the scoping agreement identifying critical issues and concerns, as validated by DENR-EMB. It also includes baseline environmental conditions focusing on sectors and resources most affected by the project; impact assessment focusing on significant environmental impacts taking into account cumulative impacts; environmental risk assessment, environmental management plan and other supporting documents. The report also covers proposals for environmental monitoring and guarantee funds, accountability statement of EIA consultants and proponent and other clearances.

#### ***2. Programmatic EIS for co-located, new projects under Categories A and B***

According to EMB MC005-2014, this is a documentation of comprehensive studies on environmental baseline conditions of a contiguous area. This report includes assessment of the carrying capacity of the area to absorb impacts from co-located projects.

The report shall contain executive summary; project description; summary matrix of scoping agreements; profiling of environment; environmental carrying capacity analysis; environmental risk assessment; environmental management plan to include allocation scheme for discharge of

pollutants, criteria for acceptance of locators, environmental management guidebook for locators, and environmental liability scheme; duties of the environmental management unit to be created; proposal for environmental monitoring and guarantee funds and terms of reference of multi-partite monitoring teams.

**3. *Initial Environmental Examination Checklist Report Form for new, single project under Category B and existing and to be expanded, modified or rehabilitated single project under Category A if there is no monitoring data available.***

This is a short and simplified checklist version of an EIS prescribed by the DENR and required to be filled up by proponents for describing the project's environmental impact and corresponding mitigation and enhancement measures for non-environmentally critical projects located in an environmentally critical area. The DENR prescribes appropriate corresponding IEE checklist appropriate to the type of the proposed project (EMB MC 15- 2014).

**4. *Project Description Report for Categories C and D***

This report uses a standard documentation form to describe the project in terms of size, and its activities before and during construction, operation and abandonment.

**5. *Programmatic Environmental Performance Report and Management Plan for co-located existing and to be expanded, modified or rehabilitated projects under Category A.***

The report includes project description, documentation of the actual environmental performance based on current or past environmental management measures implemented and an EMP based on an environmental management system framework and standard set by EMB.

**6. *Environmental Performance Report and Management Plan (EPRMP) for existing and to be expanded, modified or rehabilitated projects or those operating without ECC, single projects under Categories A and B.***

The Environmental Performance Report and Management Plan is a document that contains project description; baseline conditions for critical environmental parameters; documentation of the environmental performance based on the current or past environmental management measures implemented; detailed comparative description of the proposed project expansion and/or process modification with corresponding material and energy balances in the case of process industries, and EMP based on an environmental management system (ISO 14000 framework) and standard set by EMB.

**7. *Programmatic Environmental Performance Report and Management Plan for existing and to be expanded, modified or rehabilitated or operating without ECC co-located projects under Categories A and B.***

**D. Coverage of the Philippine EIS System**

The PEISS covers projects that have adverse effects on the environment. Following PP 2146, the activities are classified either under Category A or Environmentally Critical Projects (ECPs) or Category B for projects located in Environmentally Critical Areas. Projects falling under these categories will require Environmental Compliance Certificate (ECC). Category C covers projects not falling under the first two categories which are intended to directly enhance the quality of the environment or directly addresses existing environment problems. Meanwhile, Category D is for undertakings deemed unlikely to cause significant adverse impacts on the environment. Projects under Category D are not required to secure ECC.

Environmentally Critical Projects are those that have high potential significant negative impact. This has four (4) major types: (1) heavy industries including iron and steel mills, non-ferrous metal industries, petroleum and petrochemical industries and smelting plants; (2) resource extractive industries such as mining and quarrying, forestry (involving extraction harvesting, and/or processing of timber and other forest products on a commercial scale), and dikes for/and fishpond development projects (3) infrastructure projects including dams, reclamation projects, roads and bridges, and power plants; and (4) golf course projects.

The agriculture-related projects classified under Category B include:

1. Under heavy industries – manufacturing of agri-chemicals, industrial chemicals and other substances; agriculture, food and related industries covering processing of animal products (such as fish/meat processing, canning, slaughterhouses, including other marine products, crabmeat), coconut processing plants (including production of other coconut-based products), distillation and fermentation plants (bioethanol project), food preservation (such as drying, freezing) and similar methods aside from canning; agricultural processing including rice, corn, vegetables, fruits and other agricultural products; rice and corn mill; other types of food and other food by-products, additives, etc.; processing industries; processing of dairy products; and sugar mills.
2. Under resource extractive industries – livestock animal industries such as livestock/piggery, ostrich farming, livestock/poultry and other livestock projects; agriculture industry such as agricultural plantations (e.g. orchards, including rubber); fishery projects such as fishery/aquaculture projects using fresh or brackish water below 25 hectares.
3. Under infrastructure – irrigation projects; wastes-to-energy – biogas projects; institutional and other infrastructure with laboratory facilities; composting/fertilizer making for more than 3,750 metric tons annual production rate.

The type of report to be submitted for the purpose of securing the ECC depends on the threshold as enumerated in Annex A of EMB MC 005-2014, and as discussed in section II.C of this paper.

Environmentally Critical Areas are areas delineated through Presidential Proclamation 2148 as environmentally sensitive such that significant environmental impacts are expected if certain projects are located, developed or implemented in it. The following are the ECAs:

1. Areas declared by law as national parks, watershed reserves, wildlife preserves and sanctuaries;
2. Areas set aside as aesthetic, potential tourist spots;
3. Areas which constitute habitat for any endangered or threatened species of Philippine wildlife (flora or fauna);
4. Areas of unique historic, archeological, geological, or scientific interest;
5. Areas which are traditionally occupied by cultural communities or tribes;



6. Areas frequently visited and or hard hit by natural calamities such as geologic hazard areas, flood-prone areas, areas frequently visited by typhoons and areas prone to volcanic activities/earthquakes;
7. Areas with critical slope;
8. Areas classified as prime agricultural lands. The IRR states that “Prime agricultural lands shall refer to lands that can be used for various or specific agricultural activities and can provide optimum sustainable yield with a minimum of inputs and development costs as determined by the Department of Agriculture (DA), National Irrigation Administration (NIA) or concerned local government unit through their zoning ordinance;
9. Recharged areas of aquifers;
10. Water bodies;
11. Mangrove areas; and
12. Coral reefs.

## **CONCLUSION AND POLICY IMPLICATIONS**

The rich natural resources of the country is both a boon and a bane. The opportunities that these resources can provide for socio-economic development is tempered by the realization that if left unchecked, its utilization will have negative environmental impacts that has long-term and sometimes irreversible consequences. The solid legal basis of the PEISS provides for a strong regulatory framework that must be strictly followed for sustainable development. Continued updating of the IRR of the PEISS to take into consideration the many developments should be done. The balancing of economic opportunities and resource extraction will remain a challenge for the regulators. The agriculture sector, both user of these resources and absorber of the adverse impacts of heavy resource-extracting activities, should be protected at all times.

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Date submitted: July 4, 2017

Reviewed, edited and uploaded: July 5, 2017