

Environmental Impact Assessment of Development Projects

By

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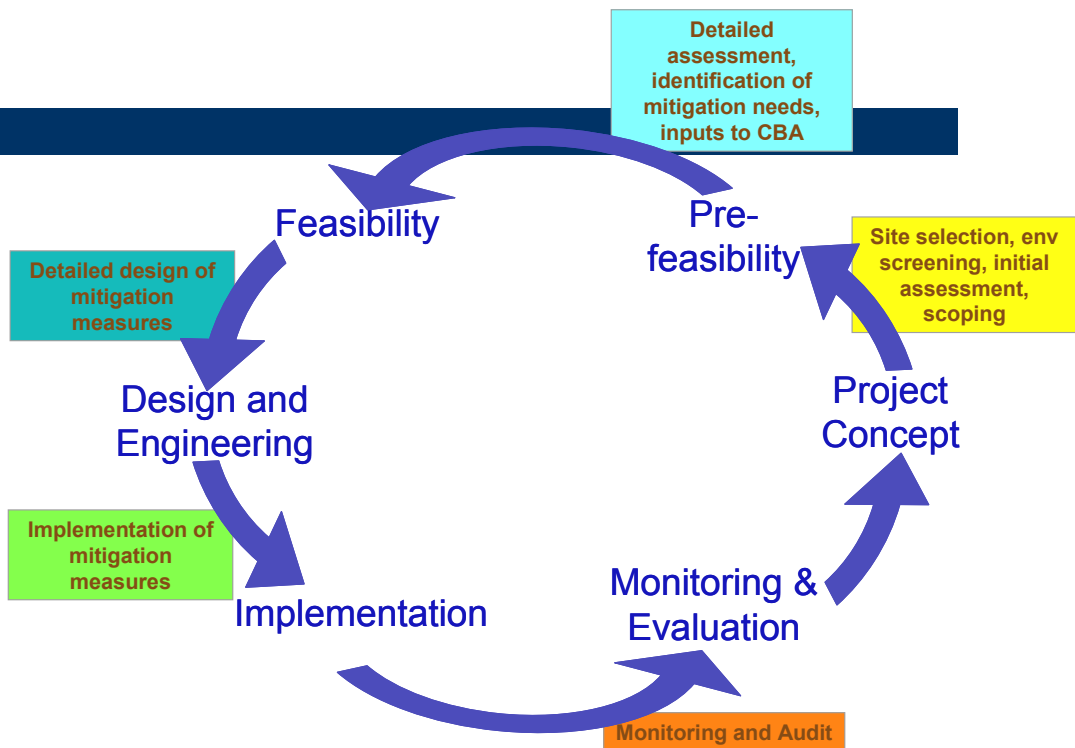
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What is EIA?

- It is a tool used to identify the environmental and social impacts of a project prior to decision-making
- It aims to predict the project's impacts on the environment at an early stage in the decision-making process
- It aims to reduce the adverse impacts of the project, shape the project to suit the local environment and present predictions and options to decision makers
- EIA reduces cost and time of project implementation and design, avoids treatment/clean up costs and impacts of laws and regulations

The EIA Process



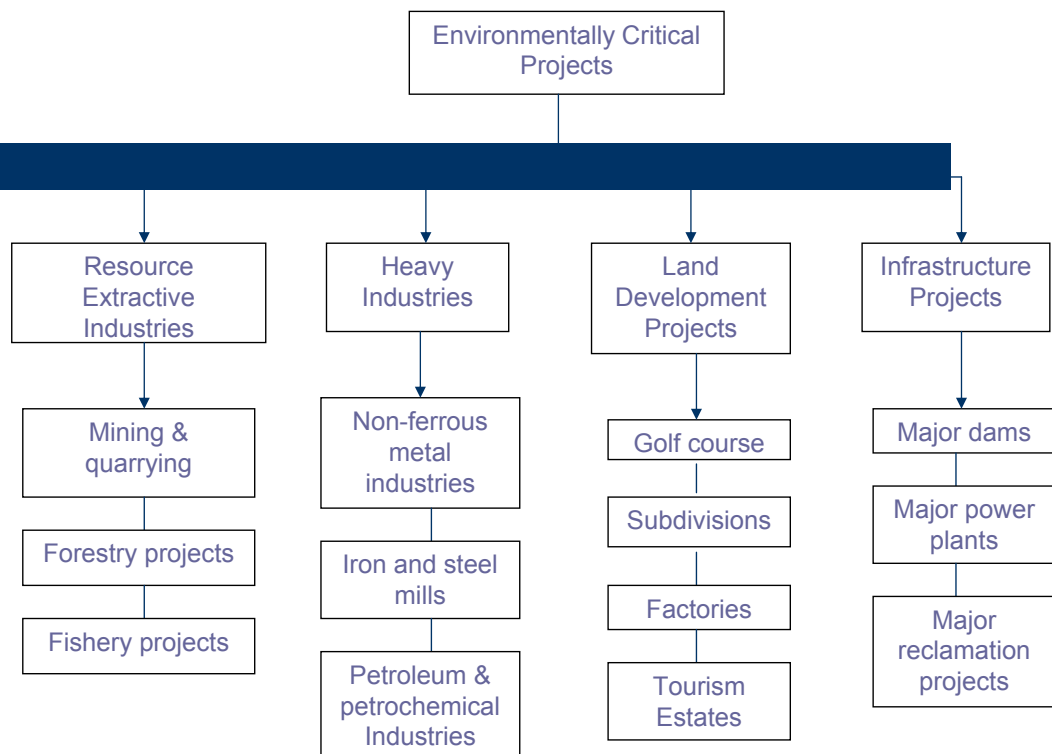
Key Elements of EIA

- Scoping: identify key issues and concerns of interested parties;
- Screening: decide whether an EIA is required based on information collected;
- Identifying and evaluating project alternatives: list alternative sites and techniques and the impacts of each;
- Mitigating measures dealing with uncertainty: review the proposed actions to prevent or minimise the potential adverse effects of the project;
- Issuing environmental statements: report the findings of the EIA.

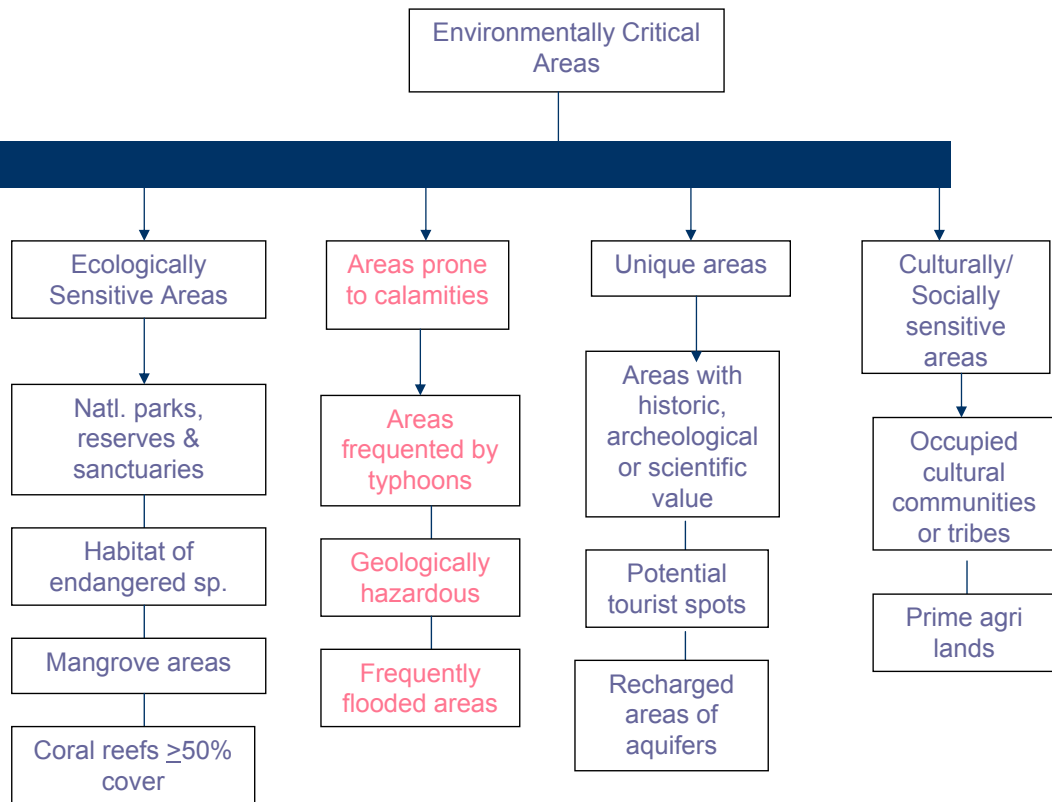
Background of the Philippine EIA System

- The Philippine Environmental Impact Statement (EIS) system was formally established in 1978 by virtue of PD 1586.
- PD 1586 reiterates the policy of PD 1151 (or the Philippine Environmental Policy), which declared environmentally critical projects (ECPs) and environmentally critical areas (ECAs) as projects that require the submission of an EIS.
- The implementing rules and regulations (IRR) of PD 1586 is being continuously improved and amended.
- The system has undergone several changes to attain a well-balanced environmental permitting process for all development projects.

Classification of Environmentally Critical Projects



Classification of Environmentally Critical Areas (ECAs)



Key Operating Principles of the Philippine EIS System

- Assessment of direct and indirect impacts of a project on the biophysical and human environment.
- Aids project proponents by incorporating environmental considerations in project planning.
- EIS review is guided by 3 general criteria: (1) environmental considerations are integrated in project planning; (2) assessment is technically sound and proposed environmental mitigation measures are effective, and (3) social acceptability is based on informed public participation.

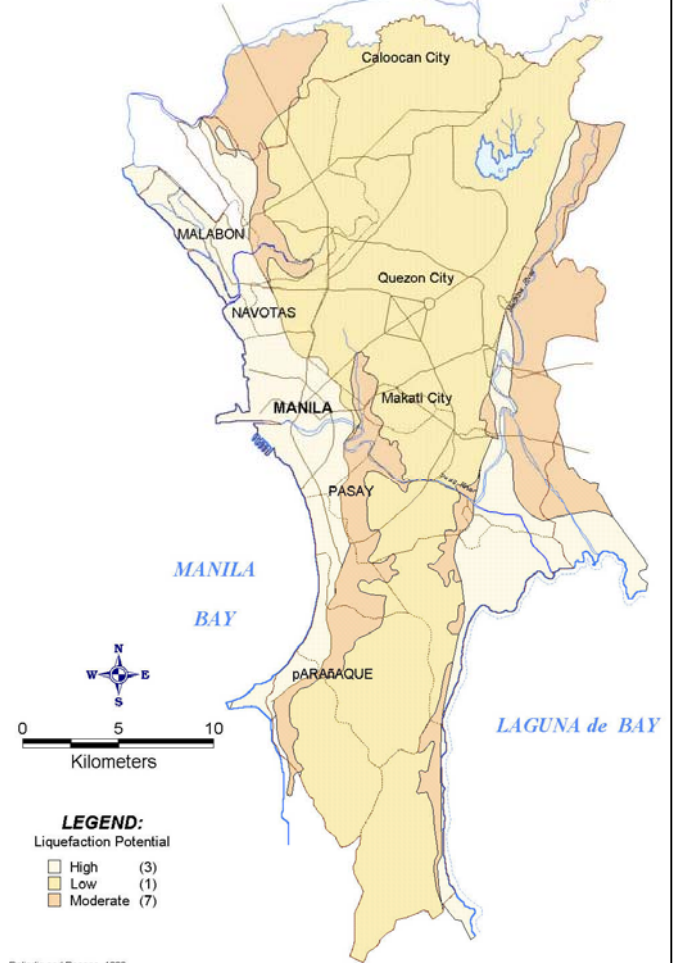
Tools in EIA for Disaster Mitigation

- EGGA – Engineering Geological and Geohazard Assessment
- ERA – Environmental Risk Assessment (concerned primarily with safety risks)
- EHIA – Environmental Health Impact Assessment

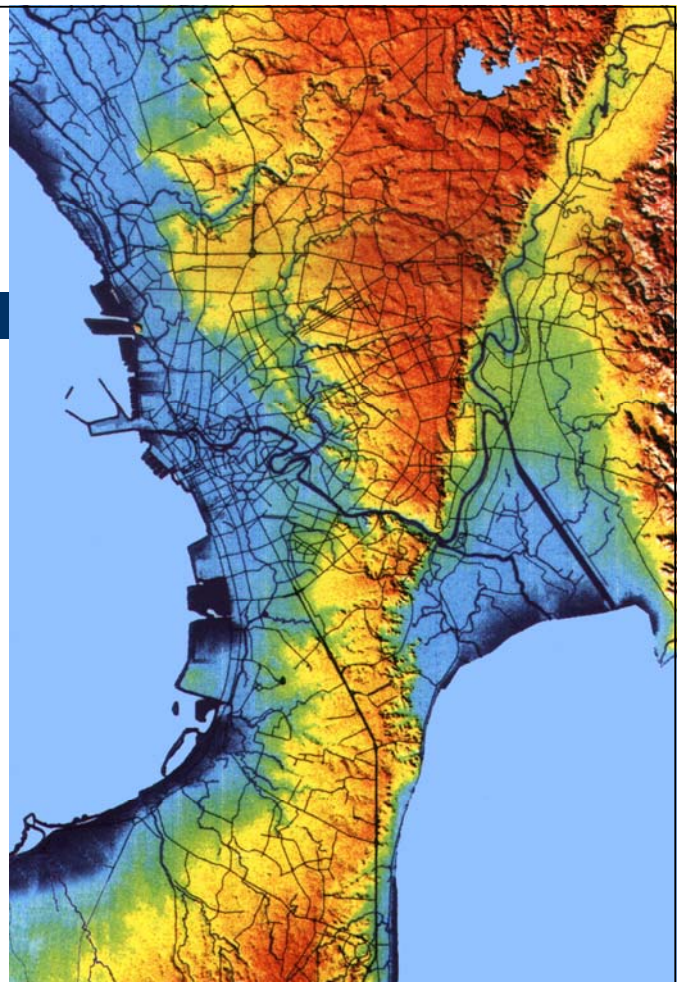
Engineering Geological & Geohazard Assessment

- The EGGA is required for all land development projects, i.e. housing, building construction, etc.
- This is an offshoot of the Cherry Hills incident in 2000
- The EGGA identifies the risks to geologic hazards such as landslides, ground rupture/movement from earthquakes, tsunami, flooding, etc.
- Mitigation measures to avoid the geologic hazards are recommended

Liquefaction Risk Map of Metro Manila



Digital Elevation Model of Metro Manila (CIGI, 2000)



Environmental Risk Assessment

- ERA is the use of universally accepted scientific methods to assess risks associated with a project.
- It focuses on determining the probability of occurrence of accidents and their magnitude.
- It is usually required for projects that will use or store large amounts of hazardous materials.
- Quantitative risk assessment and preparation of emergency/contingency plan is required.

Environmental Health Impact Assessment

- EHIA is required for health-sensitive projects or those located in health-sensitive areas.
- The EHIA contains the following: (1) health and sanitation information of the affected community; (2) environmental health impact analysis/assessment, and (3) proposed control and mitigating measures for identified environmental health impacts.

Role of Young Professionals

- Help educate communities about risks posed by natural disasters.
- Help identify risks posed by natural hazards to communities especially those living in areas prone to calamities, i.e. near steep slopes, coastal areas, etc.
- Help educate communities on ways to minimize or avoid damage caused by natural disasters.