

Country Presentation: Philippines

Regional Workshop on Radiological Impact Assessment
24 to 28 October 2022

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REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF ENERGY
TAGUIG CITY, PHILIPPINES 1632

Mandate

The Department is mandated by RA 7638 (Department of Energy Act of 1992) to prepare, integrate, coordinate, supervise and control all plans, programs, projects and activities of the Government relative to energy exploration, development, utilization, distribution and conservation.



Republic of the Philippines
Philippine Nuclear Research Institute
Department of Science and Technology
ISO 9001:2015 Certified

Mandate

The Philippine Nuclear Research Institute (PNRI), formerly the Philippine Atomic Energy Commission (PAEC), is the sole agency of the government mandated to advance and regulate the safe and peaceful applications of nuclear science and technology in the Philippines. It is one of the research institutes under the Department of Science and Technology (DOST).



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
ENVIRONMENTAL MANAGEMENT BUREAU

Mandates | Functions

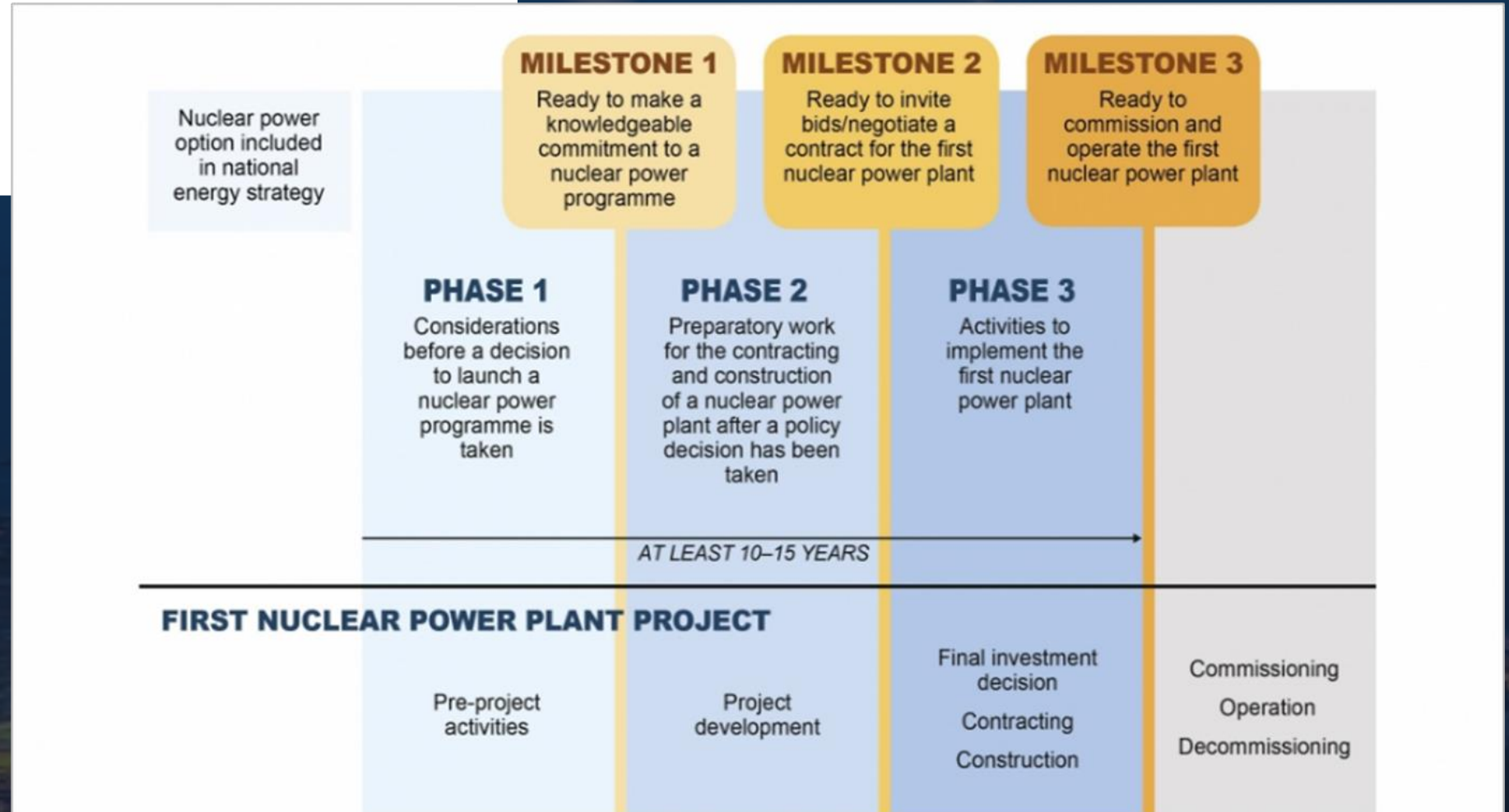
- **Presidential Decree 1586 (Philippine Environmental Impact Statement System)**
- *Republic Act 6969 (Toxic Substances and Hazardous and Nuclear Waste Control Act of 1990)*
- *Republic Act 8749 (Clean Air Act of 1999)*
- *Republic Act 9003 (Ecological Solid Waste Management Act of 2000)*
- *Republic Act 9275 (Philippine Clean Water Act of 2004)*
- *Republic Act 9512 (Environmental Awareness and Education Act of 2008)*

Status of the Nuclear Energy Program in the Philippines



REPUBLIC OF THE PHILIPPINES
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ENVIRONMENTAL MANAGEMENT BUREAU

IAEA Milestone Approach



The country adopts the Milestones Approach in the Development of a National Infrastructure for Nuclear Power of the International Atomic Energy Agency (IAEA). The country is still in Phase 1 of the Milestone Approach.

Executive Order No. 116 (2020)



Establishing the Nuclear Energy Program Inter-Agency Committee (NEP-IAC)



Directing a study for the adoption of a National Position on Nuclear Energy Program (NEP)

Composition of the Nuclear Energy Program Inter-Agency Committee (NEP-IAC)



Department of Energy (DOE)



Department of Science and Technology (DOST)



Department of Environment and Natural Resources (DENR)



Department of Interior and Local Government (DILG)



Department of Finance (DOF)



Department of Foreign Affairs (DFA)



National Economic and Development Authority (NEDA)



National Power Corporation (NPC)



National Transmission Corporation (Transco)



Philippine Nuclear Research Institute (PNRI)



Philippine Institute of Volcanology and Seismology (PHIVOLCS)

Additional Members that were invited citing Section 5 (Convergence) of the EO:

Department of Justice (DOJ)

Department of Trade and Industry (DTI)

Department of National Defense (DND)

Presidential Communications Operations Office (PCOO)

Commission on Higher Education (CHED)

Technical Education and Skills Development Authority (TESDA)

Department of Health (DOH)

Climate Change Commission (CCC)

Issuance of EO 116, 2020



Establishing the Nuclear Energy
Program Inter-Agency Committee
(NEP-IAC)



Directing a study for the adoption of a
National Position on Nuclear Energy
Program (NEP)

Nuclear Energy Program Inter-Agency Committee (NEP-IAC)

NEP-IAC
SUB-COMMITTEES

1

Management
Policies Financing

2

Nuclear Safety
Security
Safeguards
Radiation Protection

3

Legal
Regulatory

4

Human Resources
Stakeholders
Involvement

5

Siting
Environment
Emergency Plan

6

Nuclear Fuel
Radioactive
Waste

Executive Order No. 164

Executive Order 164: “Adopting a National Position on a Nuclear Energy Program and for Other Purposes” was signed by the President last 28 February 2022

Nuclear Energy Program – process that starts with the inclusion of nuclear power in the energy mix based on a prefeasibility study on the need for and viability of nuclear power. It includes the development of nuclear power infrastructure and encompasses the planning and construction, operational, commercial and post-operational stages of nuclear power plants.

Objectives:

- a) Economic
- b) Political
- c) Social
- d) Environmental

Guiding Principles:

- a) National Policy Development
- b) Energy Analysis and Planning
- c) Prefeasibility Study
- d) Engagement of the Public and Relevant Stakeholders



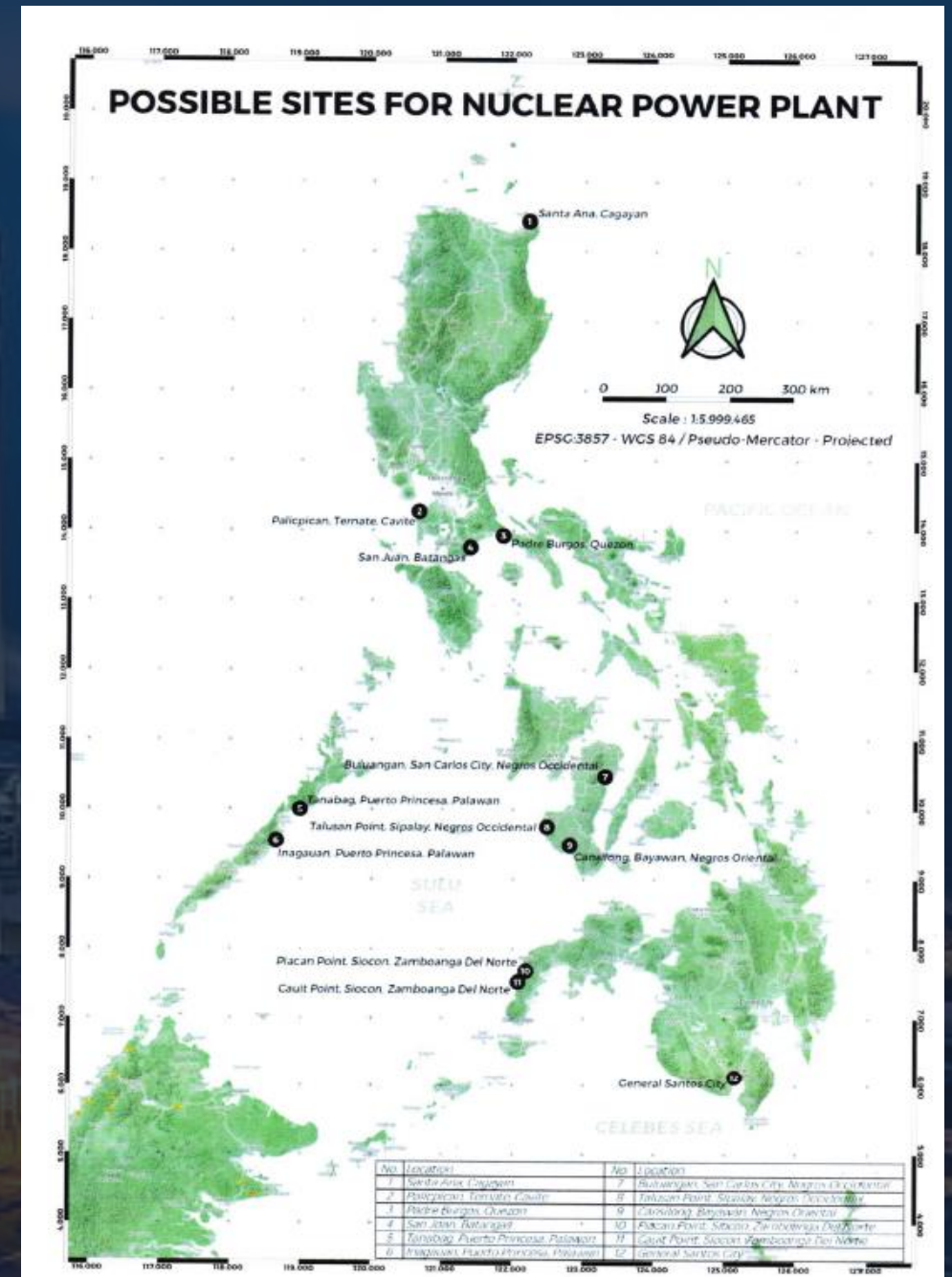
Nuclear Energy Program- Interagency Committee (NEP-IAC)

Additional Functions of NEP-IAC (EO 164):

- Ensure that a comprehensive legal and regulatory framework is in place to support the Nuclear Energy Program
- Evaluate, update and expedite the implementation of the National Strategy, Roadmap and Timeline of the Nuclear Energy Program
- Assess, review and develop a national nuclear power infrastructure using the IAEA's Milestone Approach, which includes nineteen (19) nuclear infrastructure issues grouped under four (4) cornerstone approach.
- Implement and amend, if necessary, the existing Strategic Communication (StratCom) Plan to boost public acceptance in all aspects of Nuclear Energy Program
- In coordination with the DOE, Department of Science and Technology and Department of Foreign Affairs, liaise with the IAEA in updating the Integrated Work Plan and the Country Nuclear Infrastructure Profile
- Perform the functions of a NEPIO, as recommended by the IAEA

Siting for Potential Sites of Nuclear Power Plant

1. Port Irene / Matara Point and Rakat Hill, Cagayan
2. Mapalan Point, Morong, Bataan
3. Palicpican, Ternate, Cavite
4. Padre Burgos, Quezon
5. San Juan, Batangas
6. Concepcion, Tanabag, Puerto Princesa, Palawan
7. Tagbarungis, Inagauan, Puerto Princesa, Palawan
8. Buluangan, San Carlos City, Negros Occidental
9. Talusan Point, Sipalay, Negros Occidental
10. Cansilong, Bayawan, Negros Oriental
11. Piacan Point Siocon, Zamboanga del Norte
12. Caut Point Siocon, Zamboaga Del Norte
13. General Santos City



Philippine EIS System Framework



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
ENVIRONMENTAL MANAGEMENT BUREAU

PHILIPPINE EIA SYSTEM FRAMEWORK

PD 1151 Philippine Environmental Policy *(6 June 1977)*



PD 1586 Establishment of the Philippine EIS System & the ECC Requirement
(11 June 1978)



Presidential Proclamation 2146 *(1981)*
Presidential Proclamation 803 *(1996) (Generic Description of Projects & Areas covered by the Philippine EIS System)*

Presidential Administrative Order 42
Rationalizing the Phil. EIS System Implementation *(2 November 2002)*



DENR ADMINISTRATIVE ORDER (DAO) 2003-30 Implementing Rules and Regulations for PD 1586 *(30 June 2003)*



Procedural Manual for DAO 2003-30 *(Jan 2004 – August 2007)*

- *MC 2010-14 – Standardization of requirements & enhancement of Public Participation in the Streamlined Implementation of the PEISS (June 29, 2010)*
- *MC 2011-05 Incorporating Disaster Risk Reduction (DRR) and Climate Change Adaptation (CCA) concerns in the Philippine EIS System (Nov.11, 2012)*

Presidential Decree 1151 (Philippine Environmental Policy)

To prepare a detailed statement on:

- the environmental impact of the proposed action, project or undertaking;
- any adverse environmental effect which cannot be avoided should the proposal be implemented;
- alternative to the proposed action;
- a determination that the short-term uses of the resources of the environment are consistent with the maintenance and enhancement of the long-term productivity of the same; and
- whenever a proposal involves the use of depletable or non-renewable resources, a finding must be made that such use and commitment are warranted.

Presidential Decree 1586 (Philippine EIS System)

“...No person, partnership, or corporation shall undertake or operate any such declared environmentally critical project or area without first securing an Environmental Compliance Certificate issued by the President or his duly authorized representative.”

- ❑ Non-critical projects may be required to provide additional environmental safeguards as may deem necessary
- ❑ Concepts of ECP and projects within ECA

Presidential Proclamation 2146

- ❑ Proclaiming Certain Areas & Types of Projects as **Environmentally Critical** in determining appropriate scale
- ❑ Defined **Environmentally Critical Areas (ECAs)** and provided listing of **Environmentally Critical Projects (ECPs)**

Environmentally Critical Projects

- ❑ Heavy Industries
- ❑ Resource Extractive Industries
- ❑ Infrastructure Projects
- ❑ Golf Course Projects (PP 803)



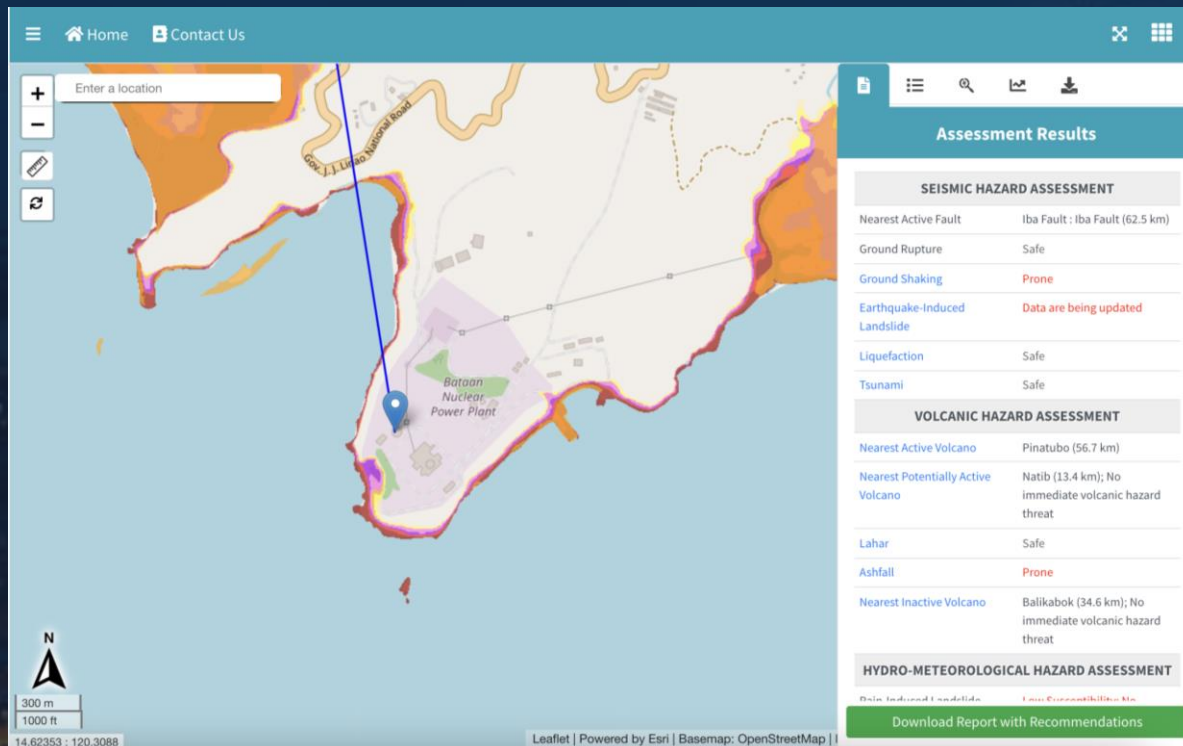
Environmentally Critical Projects

III. Infrastructure Projects

- a. Major dams
- b. Major power plants (fossil-fueled, nuclear fueled, hydroelectric or geothermal)
- c. Major reclamation projects
- d. Major roads and bridges

PP 2146 recognizes nuclear fueled power plants as an Environmentally Critical Project (ECP)

Environmentally Critical Areas



<https://hazardhunter.georisk.gov.ph/>

- ❑ Areas declared by law as national parks, watershed reserves, wildlife preserves, and sanctuaries
- ❑ Areas which constitute the habitat for any endangered or threatened species of indigenous Philippine Wildlife (flora and fauna)
- ❑ Areas set aside as aesthetic, potential tourist spots
- ❑ Areas of unique historic, archaeological, geological, or scientific interests
- ❑ Areas which are traditionally occupied by cultural communities or tribes
- ❑ Areas frequently visited and or hard-hit by natural calamities
- ❑ Areas with critical slope
- ❑ Areas classified as prime agricultural lands
- ❑ Recharge areas of aquifers
- ❑ Natural water bodies
- ❑ Mangrove areas
- ❑ Coral reef areas

Presidential AO No. 42 (2002)

- ❑ Stressed the role of PEISS as a planning tool
- ❑ 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.
- ❑ EIS processing and approval procedure was further streamlined to prevent undue delay in ECC applications.

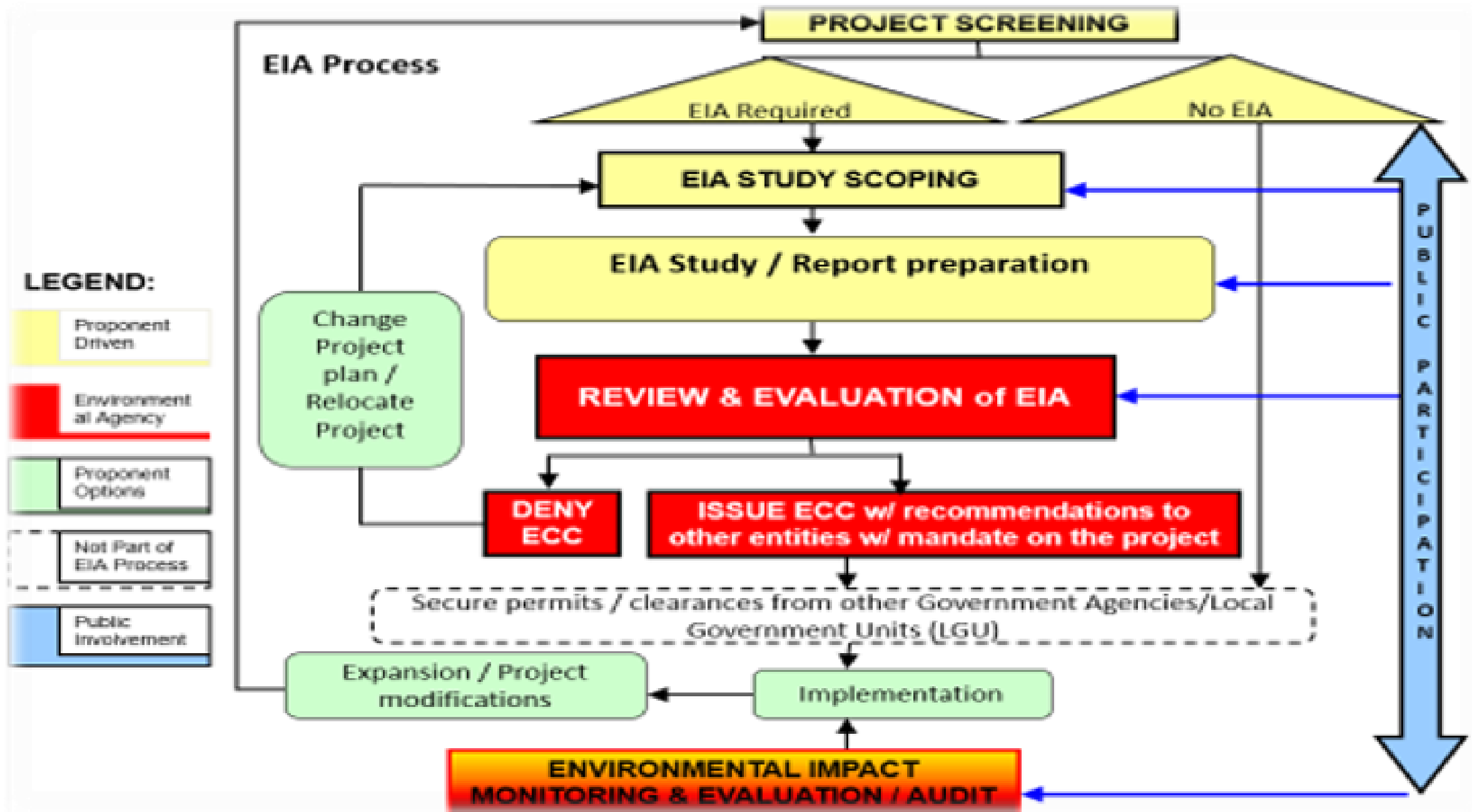


EIA Process Overview

Stages of the EIA Process

1. Project Screening
2. Scoping
3. EIA Report Preparation
4. Review and Evaluation
5. Decision Making
6. Monitoring and Validation/Audit





Challenges and Other Issues for Nuclear Power Projects

- ❑ There is a need to revisit the policies regarding PEISS for nuclear power projects
- ❑ Scoping checklist for nuclear power projects needs to be developed to incorporate hazards/risks associated with nuclear plant operations
- ❑ Need for experts on impact assessment for nuclear power plant project particularly on radiological impact assessment
- ❑ EMB need to be capacitated in the review and evaluation of nuclear power plant project for issuance/denial of ECC applications pursuant to PD 1586 and its IRR
- ❑ Need to streamline policy and requirements between the EMB and PNRI in handling nuclear materials and wastes



THANK YOU!

