Developing a Sustainable Pathway for Philippine Nickel Sector

7th Mindanao Policy Research Forum

"Reset and Rebuild for a Better Mindanao in the Post-Pandemic World"

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“Developing a Sustainable Pathway for Philippine Nickel Sector”

Brief Information about PPD grants:

The core of this project is a **Strategic Environmental and Social Assessment (SESA)** for attaining the **sustainable development goal of producing “clean nickel”.** This tool will ensure environmental and social sustainability and highlight any likely significant effects of plans, policies, and programs in the region. This partnership focuses on creating an interdisciplinary understanding of mining in the Philippines, the interactions between the key players and stakeholders, the perception of current mining practices in the local community, and the impacts on the environment.

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“Developing a Sustainable Pathway for Philippine Nickel Sector”

Key Criteria for identifying Caraga as Pilot Site

a) Caraga Region was selected being the largest Ni deposits in the Philippines

b) Economic contribution of 22% of the regional GDP

c) Hosting 14 active Ni mining projects as of CY 2021

A **Strategic Environmental and Social Assessment (SESA)** was adopted to assess the Philippines' current sustainable nickel mining scenario.

METHODOLOGY

a) Focus Group Discussions (FGDs) and Key Informant Interviews (KIIs) of invited stakeholders and resource speakers during the online forum.
b) Desk reviews from academic databases were performed based on preliminary findings related to environmental, socio-economic, and governance issues in mining.
c) Stakeholders from various government agencies, mining industries, and the academe were invited to present crucial topics related to the workshop's goals.

RESULTS AND DISCUSSION

Gaps in Governance Aspect:

- ✓ Communication gap: some members of the community are not aware in the development of the area.
- ✓ Lack of education of stakeholders in mining laws and policies.
- ✓ Lack of understanding of the stakeholder dynamics/stakeholder ecology.
- ✓ There is no feed-backing from the representative to the members of stakeholder groups.

Gaps in Environmental aspect:

- Groundwater is not included in routine monitoring protocol.
- Hexavalent chromium, already reported to be elevated in waters of Claver, Surigao del Norte.
- Lacks experts in the conduct of monitoring activities.
- Mining rehabilitation plan may not be sustainable and acceptable to the community.
- Siltation impacts biodiversity and livelihood. Environmental monitoring parameters are not streamlined.

Gaps in Socio-economic aspect:

- Current social impact assessment process is not inclusive and comprehensive.
- There is no rigorous impact assessment of SDMP programs to the socio-economic welfare of the communities.
- Lacks of understanding of the stakeholders' power and influence.

Key Findings From PPD Grants

- Stakeholder engagement under rated in the areas of SDMP, Environmental Planning and Implementation.
- Transparency gaps and reliability issues in monitoring and reporting.
- Environmental impacts of mining not fully addressed despite huge budget allotted for environmental management; need to have holistic and innovative and forward-looking solutions.
- Short sighted economic projections; need to interconnect with local economic development for holistic economic program to prepare for the life after mine.

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NEEDS

"Clean" Nickel Production

28
Ni
Nickel
58.693

Socially Inclusive and Holistic Science-based roadmap for the sustainable development of the nickel sector adopting SESA

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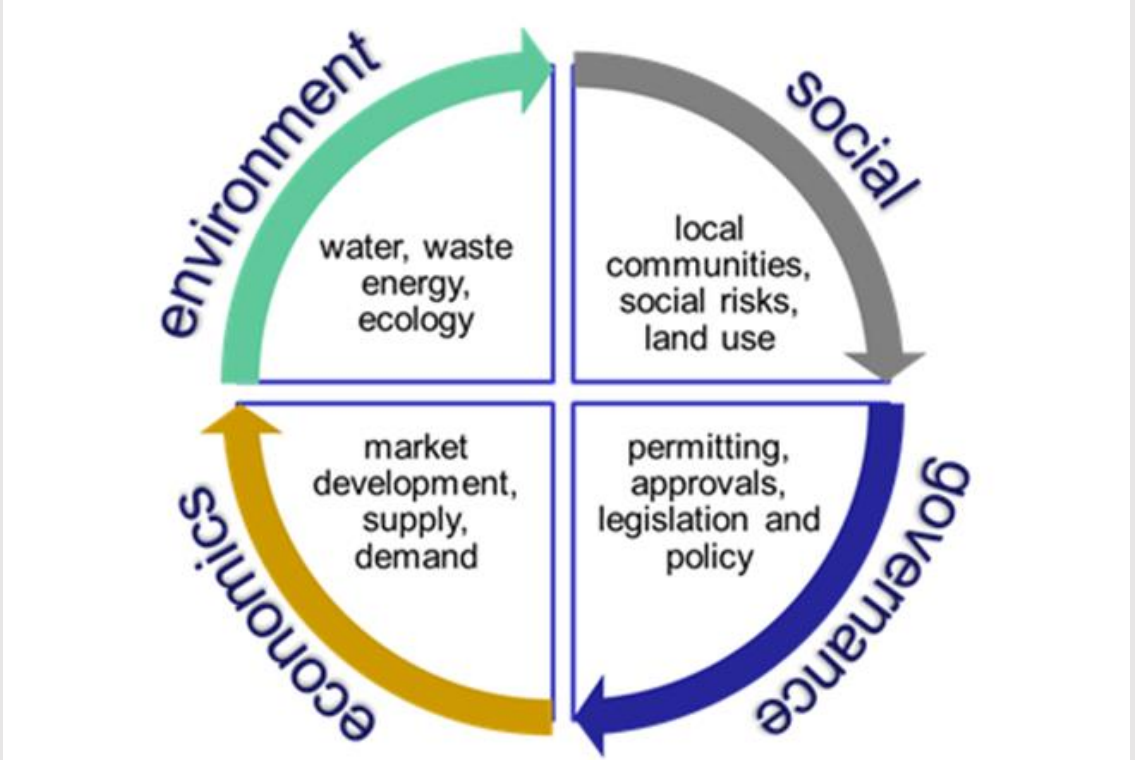
The global market considers the producers' ability to demonstrate that all requirements for "clean nickel" production are addressed throughout the value chain. These are related to the SDG 12 (Responsible Production and Consumption) in mining focusing on:

- environmental,
- social, and
- corporate governance challenges



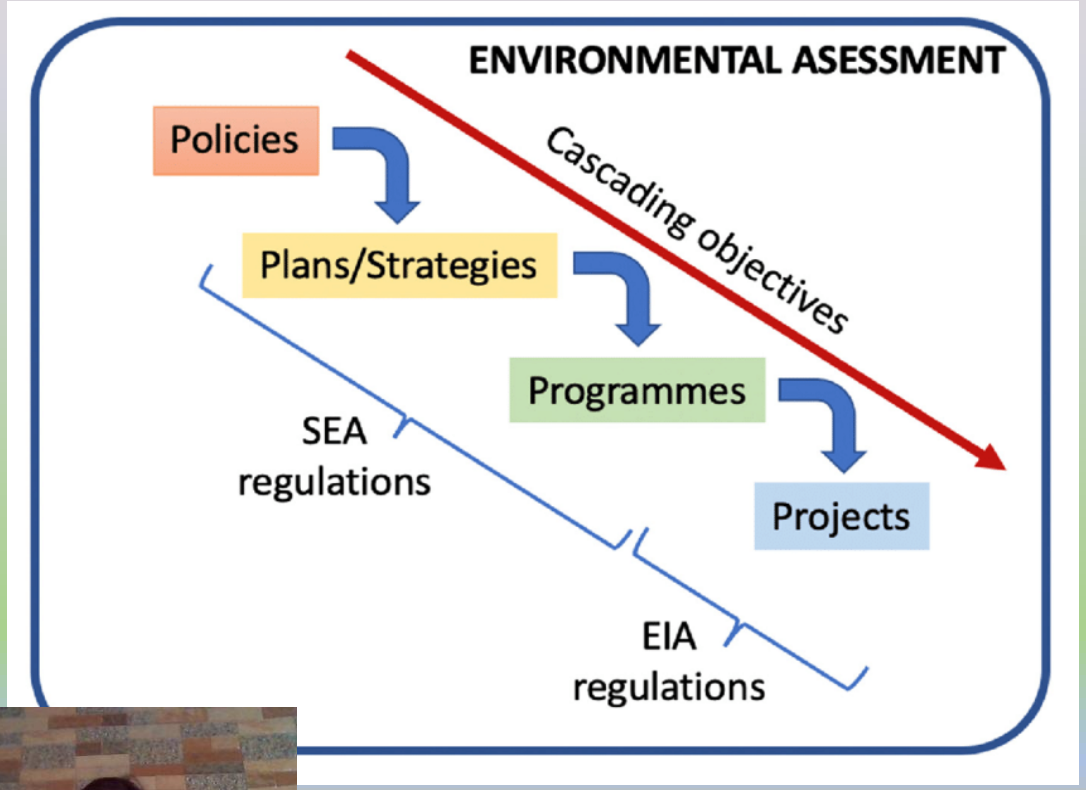
Framework for nickel resource governance accounting for environmental, social, governance, and economic parameters, that hinders market development and future global supply.

EIA is the standard requirement for projects to be issued an ECC in the Philippines to start implementation. This is true for the extractive sector in the Philippines.

SESA is a derivative of SEA which is a systematic process for evaluating the environmental implications of a proposed policy or program that provides means for looking at and appropriately addressing the cumulative effects alongside economic and social considerations of decision making.

Nickel mining contributes substantially to the economy of the Caraga Region, making it an excellent case study for SESA, towards developing a roadmap for long-term responsible and inclusive development of the country's nickel sector

Why SESA??? What is the difference between SESA and the conventional EIA?



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General Objective:

A roadmap for the sustainable development of an expanding nickel sector in Caraga Region as a basis for sustainable natural resource management elsewhere in the Philippines.

Specific Objectives

Stakeholder Engagement

Defining and characterizing the stakeholders and assess their power, urgency, influence, legitimacy, relationships, and sensitivities in the context of the pressures and impacts of Nickel mining.

Baseline Assessment

Generation of baseline geological, environmental, social, and governance data as inputs for upscaling and scenario building and analysis for sustainable nickel mining.

Innovative Monitoring

Design and develop localized ICT infrastructure for project monitoring Deploy and maintain sensor networks in the field to consolidate primary and secondary data for the visualizations and simulations. Capacitate local stakeholders on the utilization of generated technology.

Spatial Upscaling

Employ GIS techniques to describe the existing socio-environmental-economic conditions. Identify underlying relationships and tensions among parameters. Determine key parameters that will affect sustainable nickel mining in the case study area.

Scenario Analysis

Generate maps of the hazards and risks associated with reworking mine tailings and rehabilitated mines, Extract future trends for possible development of the recovery of metals from nickel mine tailings.

SESA Roadmap

Utilize the outputs of the various work packages for proposing an alternative mechanism adopting the SESA to ensure sustainability through a systems approach in addressing the socio-economic, environmental and governance aspects of nickel mining.

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BENEFITS

- More equitable and socially responsive Social Development and Management Program (SDMP).
- More engaged and more empowered stakeholders in innovative mine monitoring through citizen science.
- Well - targeted use of mining benefits to enable sustainable management of nickel mining and to prepare mining communities for life after mine.
- “Clean” nickel production for sustained economic benefits to Caraga Region and the country.
- Nickel mines adopt the more holistic landscape approach in mine rehabilitation for biodiversity conservation, for healthy soil and clean air and water.

Thank You!

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