

# Environmental and Social Impact Assessment (ESIA) for Oil & Gas Projects, a Myanmar Context

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# Agenda

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- What is an **Environmental and Social Impact Assessment (EIA)**
- A typical **ESIA** process
- **Key ESIA issues** for O&G
- The emerging **Myanmar ESIA** process and procedures



# What is an ESIA?

- ESIA is commonly a **legal procedure** in which a project developer is required to provide environmental and social information to a consenting body so that this information can be used for better **informed decision making**.
- Usually also involves publication and **public comment / disclosure** (consultation)
- This information is usually provided in an **ESIA Report** (also called Environmental Impact Statement (EIS), or can be an Environmental, Social and Health Impact Assessment (ESHIA) etc).
- ESIA procedures **vary widely** from one jurisdiction to another.

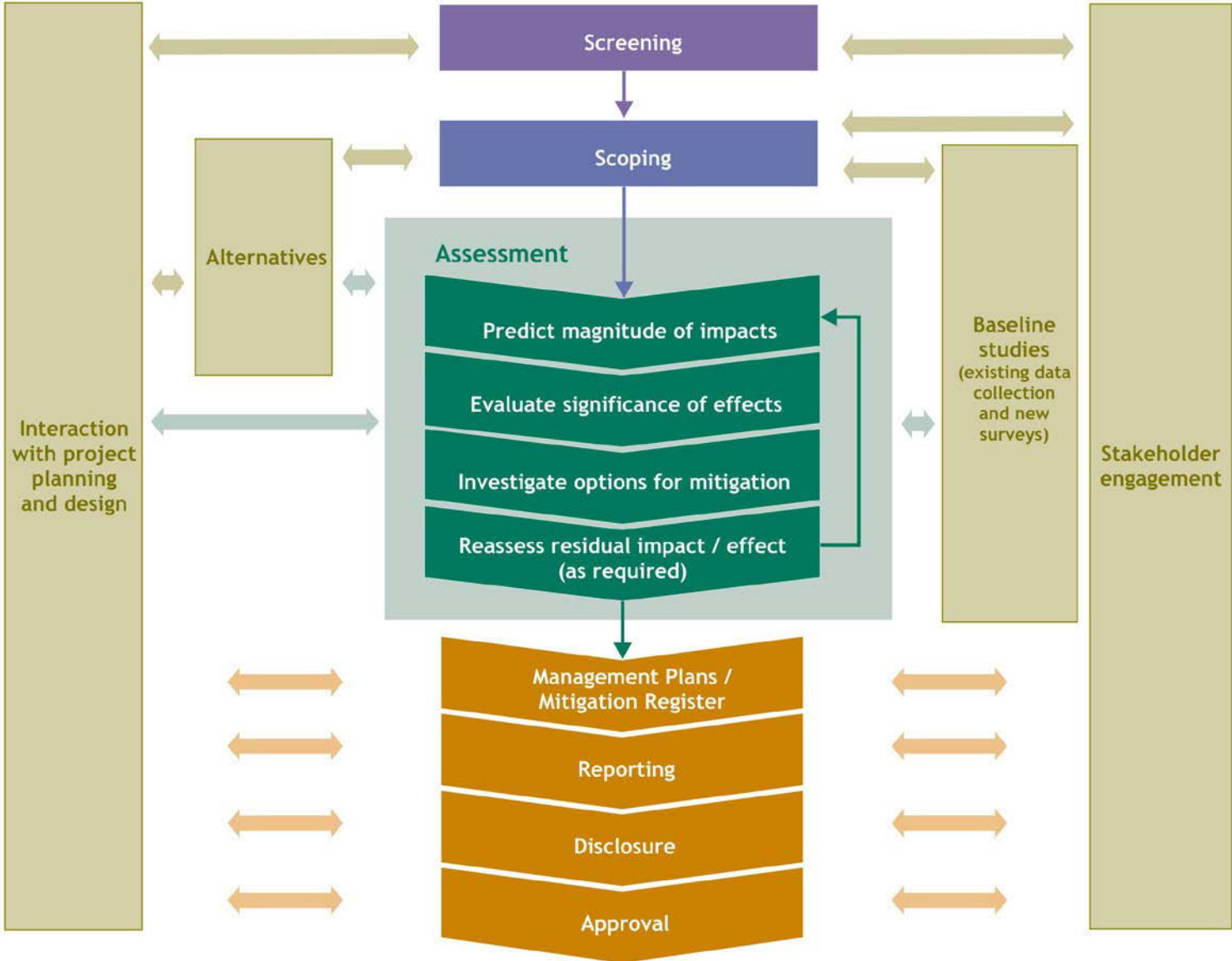


# Environmental and Social Impact Assessment

- **Drivers** for an ESIA:
  - Regulatory
  - Industry / Corporate
  - Financing
- **Context** of an ESIA:
  - Standards
  - Policies
- **Scope** of an ESIA:
  - Environment
  - Social
  - Health
  - Safety



# General ESIA Process



# Why Predict Impacts?

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Decision makers are not experts - **they need to understand** what we are telling them when we describe an impact; to understand how important the predicted impact is so that they can give it the right weight in their decision.



# Predicting Impacts

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- Describing what will be affected (from the baseline)
  - and how .... the nature of the change
  - The size of the change (how much - mg/m<sup>3</sup>; ha; % of population)
  - its geographical extent and distribution (where, how far)
  - its timing and duration (when, how long for, how often)
  - the probability and consequences (“risk”) of unplanned / non-routine events (accidents, natural disasters etc) occurring
  - the likelihood of uncertain effects (impacts where we don’t know / are not sure) occurring
  - assumptions and limitations and any resulting uncertainty about the prediction (ranges, +/- x%, confidence limits)

# Approaches to Predicting Impacts

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- Use **standards and norms** as the starting point for evaluation where available:
  - Does it cause legal or accepted environmental standards to be **exceeded** – e.g. air, water or soil quality, noise levels – or make a substantial contribution to the likelihood of exceedence
  - Does it **adversely affect** protected areas or features, or valuable resources – nature conservation areas, rare or protected species, protected landscapes, historic features, high quality agricultural land, important sources of water supply
  - Does it **conflict** with established government policy e.g. to reduce CO<sub>2</sub> emissions, recycle waste, regenerate deprived urban areas, protect human rights



# Is it enough?

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- The decision-maker needs to **know more** than just “Is it significant?”
  - They need to know how much weight to give to the impact in making the decision
  - How important it is to impose conditions to control the impact?
- Breach of a mandatory standard is illegal
  - So what about impacts that don't reach that level
  - Are they still significant? How significant?
  - What about non-statutory guidelines?
- The EIA must **present a judgment** about the significance of impacts
- Essential to **explain how significance** is evaluated, i.e. evaluation criteria
- Where there are **no standards** a good approach is to consider the magnitude of the impact and the value or sensitivity of the affected resource or receptor

# Mitigation, Management and Monitoring

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- Eliminate or otherwise minimise adverse impacts
- As Low As Reasonably Practical (ALARP)
- Consultation can play a major role in defining appropriate measures
- Mature industry has developed best practice guidance for most routine E&P operations
- New frontiers mean new challenges
- Integrated management systems cover environment, social, health and safety
- Commitments and obligations arise from EIA process
- Roles and responsibilities or putting commitments into action
- Verification – audit and inspection
- Monitoring to ensure effectiveness of mitigation and to manage change



# Key Issues in the O&G Sector



# Seismic Exploration

- Offshore
  - Underwater noise
  - Vessel emissions, wastes etc
  - Airborne noise
  - Light
  - Physical disturbance of seabed
  - Shipping / navigation / fishing
  - Non-routine events
- Onshore
  - Land clearance
  - Noise
  - Light
  - Waste Management
  - Workers camps





# Exploration / Production Drilling

- Rig positioning
- Impacts from mud and cuttings
- Flaring
- Rig emissions, wastes etc
- Presence of the rig
- Social Impacts



# Myanmar's Emerging ESIA Process



# ESIAs allows questions to be asked...

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- Should the project gain **regulatory approval**?
- What are the potential **environmental and / or social impacts** related to the project and are they being **addressed / managed**?
- Who are the **stakeholders** and are they being consulted?
- Will this project damage the Proponent's or the Government's **reputation**?
- If money is being sought for the project, are the **EHS requirements** of those institutions / lenders being met?
- Are there any **safety / risks-to-life** for the project and are they being addressed?
- What are the risks to **closure / decommissioning** of facilities?

# Expectations are Increasing

- Public expectations are high
- New challenges in an emerging / frontier market
- Issues that are of increasing importance include:
  - Social issues
  - Resettlement and Land acquisition
  - Managing sensitive habitats and the peoples that depend on them
  - Managing Biodiversity Impacts
  - Health related issues
  - Climate change related issues
  - Cumulative impacts





# Myanmar ESIA Process



- Different developments will carry specific E&S issues
- All stages of the project (before construction, during construction and when the project is operational) should be assessed – at the right time
- Good planning minimises indirect and unplanned environmental and safety impacts
- Early review and assessment of E&S risks will increase the likelihood of successes for all stakeholders
- Engagement with Stakeholders should be regular and transparent
- Continual monitoring, management and disclosure are essential



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