Infrastructure Development, Ecosystem Services and the need for Adaptive Management: An EPFI's Perspective

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Presentation Overview

- **The Role of the Lender**
- **Common Infrastructure Design and Scoping Issues**
- **ESIA: The Management Planning Process**
- **Case Study**
- **Cross Cutting Themes:**
  - **Challenges**
  - **Opportunities**

The Role of the Lender (EPFI)

- Provide Financing to a wide variety of projects (extractive, infrastructure, transportation etc..)
- Benchmark ESIAs to host country requirements and IFC Performance Standards (EHS Guidelines)
- Work with sponsors and experts to evaluate the project's impact identification, mitigation measures and management planning programs
- Assessment of sponsor's capacity to implement Project commitments (e.g. BAP, retention of external specialists)
- Undertake monitoring for the life of the loan

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Infrastructure

Common Infrastructure design and scoping issues

- Ecological information for infrastructure elements that are part larger projects (e.g. access roads, new electricity transmission lines, etc) are often left out of ESIAs
  - exact route of a proposed ETLs and road may not be established, borrow material needs not precisely identified.
  - selection of a power supply may not be completed (e.g., finalization of alternatives not complete Heavy Fuel Oil (HFO) power plant or multi-fuel option combined cycle plant).
- Smaller or regional infrastructure projects may not have an EIA or be subject to a streamlined EA (highway expansion)
- As a result, impact mitigation outlined in ESIA is often generic or defers to “Best Management Practice” given the “routine nature” of the installations

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ESIA: The Management Planning Process: Key Issues

- Where infrastructure projects in general (and those associated with larger developments) run into issues related to ES are:
  - Project scoping and impact identification
  - Integration of biodiversity and social components required to fully capture to scope of ES
  - Conceptual Management plans
  - Project implementation and procedures
  - Detailed Alternatives Analysis not completed


THINK SAFETY
BECAUSE,
I LOVE YOU MAN!
ACCESS
MAP

Gap: Deferred Design

- Common gap: Detailed project plans will only be developed once for the infrastructure component at the detailed design stage following ESIA submission.
  - Many of the elements of actual implementation do not get fully vetted at the planning stage and these are the items that tend to have significant and long term impacts to biodiversity and ecosystem services (e.g. sediment impacts, habitat fragmentation, clearing plans, access etc..)
  - Need for specific enhanced baseline studies not adequately scoped. Limited specialists involvement after the ESIA is approved.
  - Contractor is not necessarily equipped or provided costs for additional remedial work required for mitigation measures “It’s not in the contract!”.

Case Study


Human resources manager
Marketing manager
Logistics manager
Technology manager
IT-manager
Project manager
Business analyst
Health & Safety
PR-manager
Product developer
Working!

Pipeline Installation

- 200+ km pipeline to support inland resource development and coastal process and port facilities
- EIA identified the routing, key biodiversity areas, impact mitigations and recommendations for best management practices for clearing, stream crossing and sediment and erosion control
- Numerous ecological issues, including sensitive fish species identified at stream crossings. Detailed habitat assessment completed at higher ranked sites.
- Social elements such as access, resources and safety assessed in SIA

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Pipeline: Developing issues

- During construction environmental aspects (terrain, soil and heavy rains) challenged construction activities and project start up was delayed compressing timelines
- The linear nature of the Project spread out the construction activities, further complicating monitoring
- Timing challenges created large areas of exposed soils for extended periods
- Roles and responsibilities regarding corrective actions (e.g. erosion control, stream crossing rehabilitation, post construction monitoring)) and the responsibilities for planned rehabilitation not adequately defined between EPCM, contractors and project management team

Pipeline : Learnings and Outcomes

- Contractor challenged to implement appropriate construction sediment controls
- Overall project management structure limited the ability of monitoring coordinators to enforce corrective actions
- Conflicts on roles and responsibilities resulted in delays to installing rehabilitation measures which resulted in chronic erosion and water quality and habitat degradation
- Project sponsor had to implement a rapid habitat assessment program that could not be implemented until mid construction
- Sponsor had to redo rehabilitation at high cost and lost time.

Are the obstacles being overcome?

Cross cutting themes: Challenges

- Future dating of additional baseline data collection (Challenged by impacted baseline. Precautionary approach)
- Lack of integrated procedures for change management. Framework needs to be detailed in the overarching Environmental and Social Management system (Links out to BAP, chance find procedures, remedial action protocols)
- Those who monitor don't have the ability to affect the contractors activities
- Lack of integrated planning
- Commitments to biodiversity and ES not clearly articulated from the Sponsor to the contractor
- Lack of specialists with expertise to guide the implementation of EIA/BAP mitigation measures to the level of detail to integrate on the ground.

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Cross cutting themes: Positive Actions

- Detailed BAPs which would include chance find and corrective action management procedures becoming for common.
- Early engagement of the EPC or EPCM contractor to relay project related environmental commitments and expectations for design, construction, mitigation and monitoring
- Integrated planning group including sponsor, technical experts and project E&S teams to align goals of key programs (Biodiversity vs. community use of ecosystem services)

Summary

- Implementation of ESIA commitments (including BAP) not always realized on the ground.
- Project commitments and performance indicators need to be integrated into EPCM and contractor contracts and management plans
- Ensure that overarching Environmental and Social Management System includes a functional adaptive management program
- Integration amongst sponsor, project management team, EPCM and contractors for effective planning and implementation of mitigation and monitoring programs (inspire ownership in the project by all).

Thank You