DEEP DIVE III: FOREST-SMART MINING: NATURE-BASED SOLUTIONS OPPORTUNITIES FOR THE MINING SECTOR

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Context: Mining in forests
FOREST SMART MINING PHASE II

• Objective:
  • To identify and plan the development and application of relevant net emissions and operational impact mitigation tools which would promote and finance Forest-Smart NBS activities by large-scale mining’.

• Engagement with mining sector and companies:
  • Current interest lies in practical application of NbS and how can NbS help in delivering impact mitigation (biodiversity, water, social, etc)
  • Revised scope of work to respond to identified needs and interests: start with mine operation

• Fauna & Flora International (FFI) and Vivid Economics
FOREST SMART MINING: PHASE II

• Guidelines to incorporate NbS into mining projects

1. What are NbS and why are we talking about them now?

2. Why NbS is relevant to mining projects?

3. How to design an NbS according to NbS Principles?

4. Identifying the business case and financing options for NbS activities

• Pilot studies take the project sites through the four main steps in the guidelines.

• Technical Advisory Committee of experts in finance, mining and climate
NBS RELEVANCE TO MINING

Stage 1: Local impact mitigation or offsets projects
- Operational utility and impact mitigation
- Licence to operate
- Focus on offsets biodiversity and livelihoods
- Funded by mine cashflow

Stage 2: Immature carbon market revenues
- In house and verified third party emissions reductions
- Article 6 NDC compliance risk
- Blended public-private finance
- Engagement in landscape ecosystem services or carbon initiatives

Stage 3: Mature NBS carbon-supported market
- Volume third party offering
- Widely traded credits
- Fully private financing
- Engagement in payment for ecosystem services (PES) schemes
NBS IMPLEMENTATION

1. Mine operation:
   - NbS activities contribute to known mining challenges and fulfilment of licensing requirements
   - E.g. green infrastructure to manage pollution
   - E.g. habitat restoration to meet reclamation commitments.
   - E.g. biodiversity offsets to achieve no net loss commitments

2. Managing externalities:
   - NbS activities employed to mitigate mine impacts but not mandated by the terms of the license
   - E.g. nature based projects to voluntarily reduce carbon emissions, address deforestation, maintain water supply, implement green engineering, manage social impacts, or other non-mandatory activities

3. Going beyond
   - NbS activities that are additional to normal mining operations
   - E.g. integrated watershed management to deliver multiple benefits in the operating landscape (biodiversity, water, carbon, social etc.)
   - Payment for ecosystem services (watershed management)
   - REDD+ projects and contributing to NDC or Paris Agreement
NBS FINANCE

- Carbon and nature ‘targets’ require at least five-fold increase in NBS investment rate over next ten years, the majority private finance, likely through increasingly large-scale projects.
- Mining is currently a minnow in biodiversity finance: around US$1 billion, 1% of the global flow.
- Globally, private sector contributes about 15% to NBS finance today, but will likely have to become the dominant source.
- Biodiversity finance in mining sector currently comes from mining project cash flow, but in the future could (if sufficient scale) attract project finance.
- Innovations in funding and financing are driving new markets in NBS
  - Financing mechanisms
  - Funding options
  - Blended financing
  - Conservation financing
  - Climate financing
- Mining sector NbS activities will expand – especially with the uptake of nature positive objectives and the Task Force for Nature-based Financial Disclosures.
GOVERNMENT RECOMMENDATIONS

- Enabling policies for nature-based solutions
  - Recognise NbS
  - Financing options and opportunities
  - Applications
  - Land-tenure and natural resource use

- Integrate into expectations within ESIA and objectives led frameworks (NPI/NG/NNL)

- Climate adaptation and mitigation strategies to include NbS as part of responses to climate change

- Integrate into water and food security

- Integrate into Land degradation Neutrality strategies etc.
Case Studies to pilot the FSM NbS approach

1. Anglo American – Los Bronces, Chile
2. Arcelor Mittal – AML Liberia
3. Vale – Carajás, Brazil