

Integrating the Social and Environmental Aspects of Development: Cumulative Impact Assessment and Risk Management

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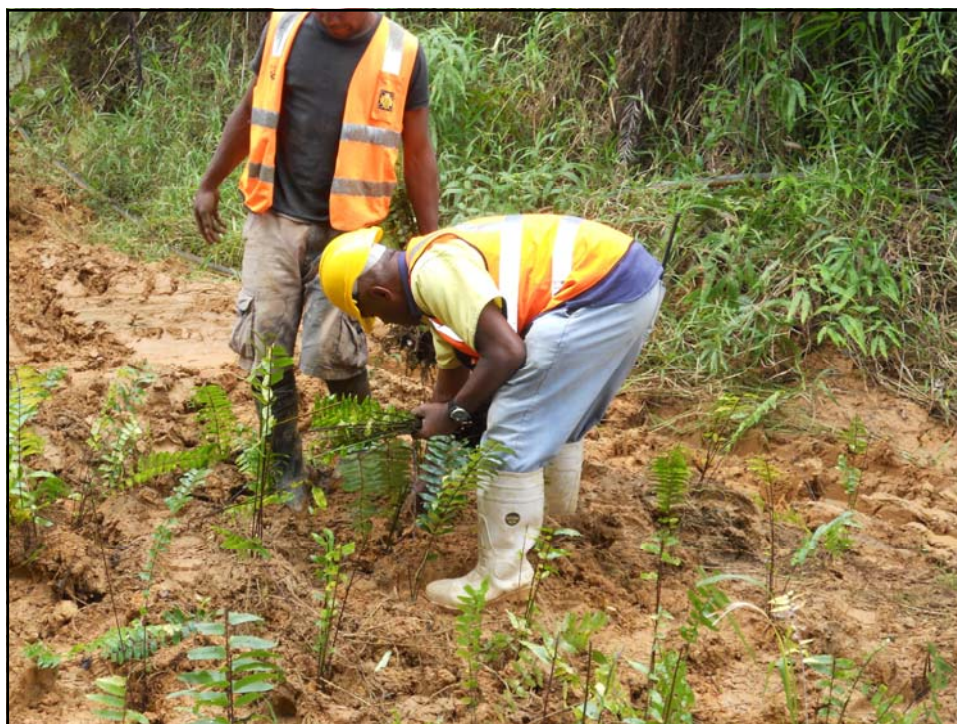
Discussion Structure

- ▶ Introduction
 - Anthropology and sociology
 - Internal consultant & critical friend
 - Telling an integration story including dilemmas
 - Use of photographs as illustrations
- ▶ Working context in Social Assessment
 - Cumulative impacts of experience
 - Common stereotypes
 - Mining, risk and cumulative assessment
- ▶ Agreed principles and understanding
- ▶ Basic Integration: Company Standards
- ▶ Case Studies
- ▶ Dilemmas & Cumulative Impacts
- ▶ Benefits of Integration

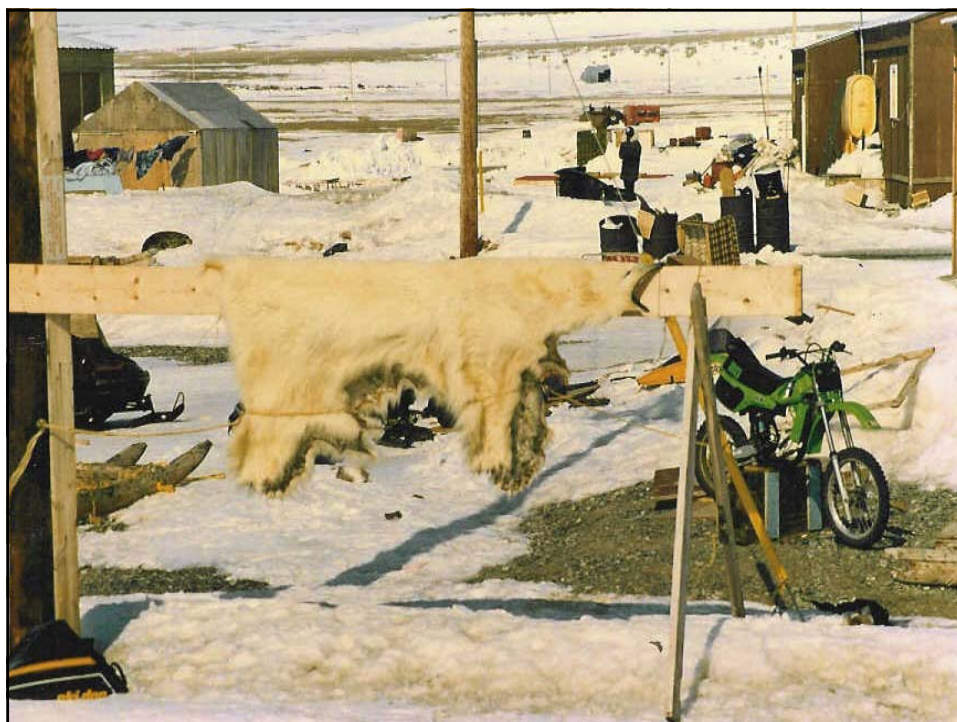
The Cumulative Impact of Experience

- ▶ Inuit villages, Esso/Shell/Beaudril and land claims settlements
- ▶ Aid projects
 - that sometimes 'just don't make sense'
- ▶ Torres Strait Regional Authority and Native Title
- ▶ Dene Nation and diamond mining
- ▶ Mining companies
 - Rio Tinto
 - BG
 - Energy Resources of Australia
 - Newcrest
 - Morobe Mining Joint Ventures
- ▶ Armed conflict zones
- ▶ Wet tropics to high Arctic









Stereotyping Anthropologists and Environmental Scientists

- Primitive artefacts and trees
- Observation
- Invisibility and protest
- Long skirts, woollen socks and Birkenstocks
- Plaid or denim shirts, jeans, hiking boots, beards
- Sometimes 'don't smell all that good'
- Culture as 'kooky, quirky, interesting'
- Environment as ethereal, animistic, untouchable
- Bleeding heart liberal
- Bleeding heart radical
- Developers & mining companies are 'evil'
- Save the world, or at least the 'other' people
- Save the trees, the critters and the 'very special green weed'
- See culture and environment through rose-coloured glasses – noble savage and pristine conservation

Mining, Risk & Cumulative Assessment

- Facilitate project development, make sure it is done properly from both social and environmental perspectives – **not to stop it**
- Minimise reputational risk and minimise negative affect on shareholder value
- Embedded in Project teams as the social lead for the company
- Working directly as a team member with the mine planners, mineralogists, enviros, geos
- Key consideration is cumulative impact assessment that integrates the social with the environmental
- Establish rules of engagement
- Use of standards to build an integrated foundation

Agreed Principles, Understanding & Respect

- ▶ **Working delineation between the social and the environmental – dispelling the blending myth**
 - e.g. People are not birds or frogs
 - e.g. Water balance is not human rights
 - Environmental assessment and social assessment
 - Clear on lexicon to eliminate ambiguity and 'slipping through the cracks'
- ▶ **Working relationship**
 - Environmental scientists are not social scientists
 - Social scientists are not environmental scientists
 - Understand and respect the professional differences
 - Support each other
 - Integration in impact assessment – 'Separate but together' if you will
 - Critical friends
- ▶ **Work together, not apart and on an equal footing**

Basic Integration: Company Standards

- | | |
|--|--|
| <ul style="list-style-type: none"> ▶ Policies, standards and guidelines <ul style="list-style-type: none"> ◦ Environment Policy ◦ Environment Standards <ul style="list-style-type: none"> • Tailings Management • Environmental Impact Assessment • Land use and Land Disturbance • Mine Closure • Water Management • Environmental Audit • Waste Rock Management • Hazardous Chemicals • Acid and Metalliferous Drainage • IFC, ICMM, ISO judiciously used | <ul style="list-style-type: none"> ▶ Policies, standards and guidelines <ul style="list-style-type: none"> ◦ Communities Policy ◦ Social Standards <ul style="list-style-type: none"> • Community Baseline Assessment • Social Impact Assessment • Land Access and Compensation • Social Closure Planning • Resettlement • Reporting and Independent Audit • Cultural Heritage • Community Consultation • Reporting and Independent Review • IFC, ICMM, ISO judiciously used |
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Closure and Rehabilitation

- Cumulative impacts
- Conceptual closure and rehab planning
- Environmental closure criteria
- Social closure criteria
- Cultural closure criteria
- Consultation
- Agreed terms – what is agreement?
- Influence and ‘skewing’
- Language
- The cost of accumulation
- Lodgement of bonds

Cumulative Impact Assessment Case Study

► Uranium, the language of closure & cumulative impact

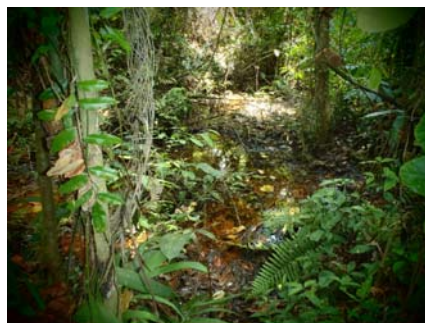
- Billabong and sump
- Sight line and way of seeing
- Black rock, carpet snake and rehabilitation
- Rehab with uranium-eating plants – but can’t eat them
- Lake but no swimming



Cumulative Impact Assessment Case Study

► The river runs blood – Mia Yo

- Legend of war
- Masalai roam
- Drank from the river
- Intestines came out
- Fixed with wood fire
- High total dissolved metals content
- Runs red in the wet
- Carbon consumption absorbs metals
- Cultural heritage meets environmental science
- Waste rock dump





Cumulative Impact Case Study

► The Vanua

- The land has eyes to see you with
- The land has ears to hear you with
- The land is benevolent
- The land is malevolent
- You are guests in our home
- Don't leave a mess as the land will know
- Your crops will die
- Your children will sicken
- Accidents will befall you
- Transport, bridges and concentrate
- The Stone God
- Mitigation



Development Dilemmas & Cumulative Impacts

- ▶ Destruction of habitat – improved health care
- ▶ Species preservation – regional infrastructure
- ▶ Cropping practices – environmental degradation
- ▶ In-migration – deforestation & pressure on natural resources
- ▶ Ore in the mill – grinding the carpet snake
- ▶ Environmental protection – social dysfunction
- ▶ Improved water and sanitation – loss of land
- ▶ Camp placement
 - Good environmentally
 - Not so good socially

Dilemmas and Impacts

- ▶ Compensation – not interested in money
- ▶ Elders for future generations – youth for the present
- ▶ Subsistence lifestyle and environmental stewardship – cash economy and consumer goods
- ▶ Biodiversity protection – biodiversity offsets
- ▶ Enhanced farming yield – fish and algae
- ▶ Biofuels – land degradation
- ▶ Ginger production – slope instability
- ▶ Often interests are not aligned – what ‘wins out’?
 - Accommodation camps, clay and spirits







Benefits of Integration

- ▶ Unified approach to assessment
 - Robust data collection supporting mutual arguments
 - Significance assessment
 - Risk rating
 - Controls and mitigations
 - Evidence-based post control monitoring
- ▶ Avoidance of misassumptions leading to project delay and cost
- ▶ Unified approach to social and environmental responsibility
- ▶ **This is not our home**
- ▶ Securing sustainability for future generations

Cooperation, Integration and Cumulative Impacts Management

- Integration of the social and the environmental is critical in these (among other) cumulative impact contexts
- Future generations and sustainability



