Sustainability Indicators for Mining Projects: Assuring a Representative Diversity of Stakeholders and Issues

Application to the Uranium Mines in Arlit (Niger)

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SDIMI 2007
International context of mining

> Strong demand worldwide but… :
  • Strongest competition
  • Highest expectations of financial institutions (Equator Principles, etc.)
  • Highest expectations of governments (e.g. Camp Caïman in French Guyana)
  • Growing opposition of civil society:
    — on sites (Grasberg, Porgera, Yanacocha)
    — and at the global scale (No Dirty Gold, Unearth Justice, etc.)
The « social license » as a match of the supply and the demand

The companies’ Supply
(e.g. limited financial resources, corporate strategy, etc.)

Social license to operate

The social Demand
(e.g. more jobs, more social infrastructure, less waste, etc.)

Issue: developing tools enabling to find an agreement between companies and their stakeholders concerning the social license’s clauses

These tools must:
- Simplify and make understandable complex issues
- Enable people to speak together and negotiate
- Support decision making
Research work

> Defining and applying an approach for assessing mining projects in terms of SD

> Partnership between UVSQ and BRGM (2004 – 2007)
### How to evaluate?

<table>
<thead>
<tr>
<th>Needs</th>
<th>Indicators that are strong, measurable and transferable</th>
<th>Indicators that respond to stakeholders expectations and sites’ differentiations</th>
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<tr>
<td>Sources</td>
<td>International initiatives</td>
<td>Actors’ dialogue</td>
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<td></td>
<td>► Top / Down</td>
<td>► Bottom / Up</td>
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<tr>
<td>Limits</td>
<td>Lack of realism and of social legitimacy</td>
<td>Lack of transferability (non scientific, non-normative approach)</td>
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</table>
Top-down / bottom-up approach

Publications, firms annual reports, codes… :

*Indicators systems elaborated from academical hypothesis and international standards*

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Exploitable, accepted and understood indicators

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Work groups of sites’ stakeholders :

*Indicators’ propositions built from local perceptions of issues*
Application to the Uranium mines in Arlit (Niger)
Geographic location

Chamaret et al., SDIMI 2007 – Milos – 17-20 June 2007
Application of the top-down / bottom-up approach

**Step 1:** Stakeholders identification and definition of site’s sustainable development issues

**Step 2:** Identification of candidate indicators

**Step 3:** Evaluation of candidate indicators

**Step 4:** Selection of indicators

**Step 5:** Project assessment

Methodological tools

International initiatives (GRI, MMSD, …)

- Interviews with stakeholders
- Focus groups
- Interviews, focus groups, meeting
Step 1: Stakeholders identification and definition of site’s sustainable development issues

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Interviews with stakeholders

Focus groups

Interviews, focus groups, meeting
Step 1: Problem's structuring

1.1. Stakeholders’ typology

- **Internal stakeholders**:
  - shareholders
  - management
  - employees
  - unions

- **Coordinating authorities**:
  - Professional associations
  - National government
  - Local authorities

- **Traditional external stakeholders**:
  - providers
  - sub-contractors
  - customers
  - banks

- **Enlarged external stakeholders**:
  - Local population
  - Traditional chievery
  - NGOs

- **Somaïr and Cominak**

- **Regional**

- **National**
Step 1 : Problem’s structuring

1.2. Issues’ definition

> **Two main questions:**

• According to you, what are the impacts, your expectations or your concerns related to mining activity?
• What would be the parameters you would use for measuring these aspects?

> **56 meetings with stakeholders** (about 70 people):

• Internal stakeholders : 6 interviews in Niamey and 16 in Arlit
• Traditional external stakeholders : 2 interviews in Arlit
• Enlarged external stakeholders : 1 interview in Niamey and 15 in Arlit
• Coordinating authorities : 7 interviews in Niamey and 9 in Arlit
Step 1: Problem’s structuring
1.3. Issues’ analysis and organisation

> Speech analysis from interviews’ reports:
  • At the national, regional and local scales
  • According to stakeholders’ categories

> Organisation in 9 categories combining economical, social, environmental and political issues:
  • Project’s economic performances
  • Benefits redistribution and contribution to national economy
  • Local community
  • Workplace health and safety
  • Work and equity
  • Wages, benefits and work conditions
  • Environment management
  • Resources and products management
  • Environmental impacts
Chamaret et al., SDIMI 2007 – Milos – 17-20 June 2007

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Focus groups

Interviews, focus groups, meeting
Step 2 : Identifying candidate indicators

Objective : defining about 100 candidate indicators that respond to identified issues

Three main sources:

• Proposals from stakeholders : 15 indicators
• Company’s indicators : 49 indicators for the environmental and social spheres
• Sector’s indicators : selected from a database with about 1 000 indicators from 16 international initiatives (see Chamaret & Récoché, SDIMI 2005)
Step 1: Stakeholders identification and definition of site’s sustainable development issues

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Interviews, focus groups, meeting
Step 3 : Assessing candidate indicators’ relevancy

> Objectives:
  • Reduce the number of indicators to get a more manageable set
  • Reinforce stakeholders’ support to indicators

> 15 groups of stakeholders:
  • Internal stakeholders : 6 groups
  • Traditional external stakeholders : 1 group
  • Enlarged external stakeholders : 2 groups
  • Coordinating authorities : 6 groups

> Constraint:
  • To get, for each group, a consensus for selecting 5 indicators for each category
  • Encourage new proposals if necessary
Step 1: Stakeholders identification and definition of site’s sustainable development issues

Step 2: Identification of candidate indicators

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Methodological tools
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Interviews with stakeholders, focus groups, meeting
Step 4 : Selection of indicators : the representative diversity principle (1)

> Assessment should reveal all opinions (and not only the majority)
> Assessment should reveal the diversity of issues associated to the project
> Three rules for indicators selection for each issue category :
  • Finding indicators that make consensus
  • Identifying stakeholders’ specific interests
  • Revealing issue diversity
Step 4: Selection of indicators: the representative diversity principle (2)

Specific interest of internal stakeholders and coordinating authorities
Specific interest of external stakeholders
Consensus
Consensus
Issue diversity

- Emploi direct total
- Emploi indirect total
- Part des employés provenant de la communauté locale
- Part de l'emploi créé par les mines / nombre d'emploi dans la région
- Part de femmes dans les effectifs
- Part de personnes handicapées dans les effectifs
- Part de nigériens dans les effectifs
- Part de nigériens occupant des emplois de cadre
- Distribution des emplois directs par type d'emploi: qualifié, non-qualifié, cadres
- Effectif groupe avec répartition CDD/CDI
- Nombre moyen d'employés d'entreprises extérieures dans les effectifs
- % de directeurs provenant de la communauté locale
- % d'employés ayant bénéficié d'un avancement dans l'année

Parties prenantes internes
Parties prenantes externes traditionnelles
Parties prenantes externes élargies
Autorités coordinatrices
Step 1: Stakeholders identification and definition of site’s sustainable development issues

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Step 5 : Project assessment through the Deliberation Matrix
Deliberation Matrix: Three levels of utilisation

> 1st degree: as project evaluation
  • Picture of the current situation

> 2d degree: as negotiation tool
  • Objective: “greening the Matrix”, viz. agreement on the terms of the social license

> 3rd degree: as decision support tool
  • Collective agreement on which actions to carry on (viz. education, AIDS, roads, etc.)
Conclusions

> Real **complementarities** between top-down and bottom-up approach

> **Simplification** of complex issues related to SD

> **Structuring approach**: definition of a shared vocabulary/vision, organizing diversity
Conclusions

> Negotiation made possible through **empowerment and involvement** of stakeholders

- **Strongest project acceptability and risks management**

> **Adaptable** to each type of mining project and at all mine cycle phases

> **Condition:** stakeholders’ **good will to dialogue and negotiate in a transparent and deliberative way** (and particularly companies)