MPIGM Workshop

October 18 2014

Environmental and Social Modifying Factors

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Environment and Social Modifying Factors

Presentation Agenda

1. The extent of the problem
2. International Reporting Template 2006
3. SAMREC Code 2009
4. JORC Code 2012
5. Something to consider - social
6. ICMM 10 Principles
World Economic Forum
Ten Global Risks of Highest Concern in 2014

<table>
<thead>
<tr>
<th>No.</th>
<th>Global Risk</th>
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<tbody>
<tr>
<td>1</td>
<td>Fiscal crises in key economies</td>
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<tr>
<td>2</td>
<td>Structurally high unemployment/underemployment</td>
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<td>3</td>
<td>Water crises</td>
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<td>4</td>
<td>Severe income disparity</td>
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<td>5</td>
<td>Failure of climate change mitigation and adaptation</td>
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<td>6</td>
<td>Greater incidence of extreme weather events (e.g. floods, storms, fires)</td>
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<td>7</td>
<td>Global governance failure</td>
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<td>8</td>
<td>Food crises</td>
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<td>9</td>
<td>Failure of a major financial mechanism/institution</td>
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<td>10</td>
<td>Profound political and social instability</td>
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Note: From a list of 31 risks, survey respondents were asked to identify the five they are most concerned about.
Pascua Lama

On the border of Chile and Argentina in the Andes
Pascua Lama

Chilean Court rejects Barrick appeal to restart work on USD 5-8 Billion project
Site of the Philex mining disaster

20 Mt into the Agno River
Aug 2013
CONGA OPPONENTS VANDALIZE MINE SITE KIDNAP WORKER
Cost of Social Licence to mine

The cost of conflict in the extractive sector:
- Up to $10,000 per day during initial exploration
- Up to $50,000 per day during advanced exploration
- Up to $20 million per week during operations

www.csrm.uq.edu.au/conflict-costs
Estimation and Reporting of Mineral Reserves Criteria; Other

The effect, if any, of natural risk, infrastructure, environmental, legal, marketing, social or governmental factors on the likely viability of a project and/or on the estimation and classification of the Mineral Reserves.
Estimation and Reporting of Mineral Reserves Criteria; Other

The status of the titles and approvals critical to the viability of the project, such as mining leases, discharge permits, government and statutory approvals.

Environmental descriptions of anticipated liabilities. Location plans of mineral rights and titles.
Appendix 2 Recommended Rules of conduct and guidelines

The Environment Health and Safety

Ensure that Mineral Reserve estimates acknowledge the likely environmental impact of development and ensure that appropriate allowances are made for mitigation and remediation.
(i) The necessary permits have been obtained or there is reasonable basis to believe that all permits required for the project can be obtained.

(ii) Describe any environmental factors that could have a material effect on the likelihood of eventual economic extraction. Discuss possible means of mitigation.
(iii) A statement should be provided to the effect that all necessary permits have been approved.

(iv) Describe future yearly environmental liabilities/compliance methods and costs, including reclamation and closure and their planned funding factors that could have a material effect on the likelihood of eventual economic extraction. Discuss possible means of mitigation.

(v) Refer to Environmental Impact Study.
T5.3 Social Mineral Reserves

(i) A statement should be provided to the effect that mandatory social-management programmes, if any, have been approved
Section 4; Estimation and Reporting of Ore Reserves

Criteria: Environmental

The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.
Section 4; Estimation and Reporting of Ore Reserves

Criteria: Social

The status of agreements with key stakeholders and matters leading to social licence to operate.
Section 4; Estimation and Reporting of Ore reserves

Criteria: Other

Any identified material naturally occurring risks.
For consideration; Social

Exploration results

1. Describe key stakeholders (including communities, landowners and authorities) any engagements that have been made with stakeholders and the contents of any agreements and/or commitments made.

2. Describe any obvious social factors and/or specific social/socio-economic contextual details that could have a material effect on the prospects of any possible exploration target or deposit with a focus on any physical or economic displacement that could arise from exploration and downstream development activities.
Mineral Resources

1. Outline the host country socio-economic, cultural heritage and social development legal compliance requirements and any mandatory and/or voluntary standards or guidelines to which the company subscribes

2. Outline stakeholder engagement plan including analysis of stakeholders, key issues arising from prior engagements, planned engagements, and tone of relationship with each stakeholder group.
Mineral Resources continued

3. Statement on any stakeholder expectations and grievances and how being managed.

4. Identification of any legislated social management programmes that may be required and content and status of these.
Mineral Reserves

1. A statement should be provided to the effect that legislated social management programmes, if any, have been approved and if not the content and status of these and process being followed to obtain approval.

2. Outline socio-economic and cultural heritage baseline studies, stakeholder engagement process and material negative impacts that need to be mitigated, and their mitigation measures and associated costs.

Identify material project-induced community, health, safety, security risks and impacts and possible mitigation thereof.
ICMM 10 principles

1. Implement and maintain ethical business practices and sound systems of corporate governance.

2. Integrate sustainable development considerations within the corporate decision-making process.

3. Uphold fundamental human rights and respect cultures, customs and values in dealings with employees and others who are affected by our activities.

4. Implement risk management strategies based on valid data and sound science.

5. Seek continual improvement of our health and safety performance.
5. Seek continual improvement of our environmental performance.

6. Contribute to conservation of biodiversity and integrated approaches to land use planning.

7. Facilitate and encourage responsible product design, use, re-use, recycling and disposal of our products.

8. Contribute to the social, economic and institutional development of the communities in which we operate.

9. Implement effective and transparent engagement, communication and independently verified reporting arrangements with our stakeholders.
Any Questions?