ESG
An overview for CRIRSCO
Opportunities and challenges for trustworthy and relevant minerals reporting

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Outline

• What are Environment, Social, Governance (ESG) issues and what do investors reasonably want to know about ESG performance?

• ESG is all there in the current CRIRSCO Modifying Factors; CPs are already considering this, so why the song and dance?

• Building on SAMESG – what further guidance, support and awareness building about ESG is needed for CPs, investors and companies?

• Discussion:
  • What are the opportunities for CRIRSCO to further drive best practice reporting standards to meet current and future investor expectations?
  • What’s the plan....?

What is ESG?
How is it relevant to mining project risk?

Environment
Social
Governance
Environmental

Land use
Biodiversity & ecosystem services
Waste

Noise, visual and vibration
Surface water
Groundwater
Site access
Rehabilitation & closure
Emergency response
Climate change
Permits
Social stakeholder engagement

- Government relations
- Resettlement
- Site access
- Local procurement
- Expectations for shared value
- Health and safety
- Stakeholder engagement
- Emergency response
- Local hiring
- Social context
- Permits
Governance

Corporate governance

Board composition (diversity)

Management

Stakeholder engagement

Government & regulatory bodies

Business ethics

Tax transparency

Compliance

Permits
Top 10 risks facing mining and metals

“The growing palpability of shared economic, environmental and societal risks signals that the horizon has shortened for preventing – or even mitigating – some of the direct consequences of global risks”

Børge Brende, President, World Economic Forum
Environmental, social and governance (ESG) issues are in the board examining the company’s destruction of a 46,000-year-old Juukan Gorge rock shelters in WA.

Rio Tinto’s (ASX: RIO) case is highlighted in a report, ‘The Importance of ESG in the Resources Sector’, which says ESG risks are increasing amid rising awareness of cultural heritage.

Investor groups have campaigned for Rio Tinto to avoid destruction of Juukan Gorge rock shelters in WA came to be destroyed when it was Brockman 4 minesite in May.

“Investor activism on ESG issues is increasingly strident. We expect ESG risks to become more pertinent for mining companies as they implement their projects,” said the report’s author Paul Bartholomew, S&P Global Platts Asia-Pacific head of metals news and insight.

ESG issues may not always be clear-cut, and the Rio Tinto event highlights the fact that social risk factors go beyond legal obligations, said the report.


https://www.telegraph.co.uk/business/2020/09/09/juukan-gorge-rio-tinto/


OUTPERFORMANCE
THE RISE AND RISE OF ESG INVESTING

The pandemic has accelerated the momentum of sustainable investment strategies, but widespread adoption will depend on proving that socially responsible investment returns are superior over the long term.

INTEREST IN RESPONSIBLE INVESTING HAS GROWN

The last few years have been explosive for ESG investing. Investor interest in sustainability strategies has led to a record number of related assets under management expected in 2020.

71% of global investors were interested in sustainable investing in 2015.

85% expressed an interest in sustainability-focused strategies in 2019.

15% more investment per month recorded in companies with good sustainability ratings than those with poor ratings between 2016 and 2019.

Morgan Stanley 2019
Investors are concerned about Environmental, Social and Governance (ESG) performance…

We see sustainability as a macro thematic trend that is fundamentally reshaping the competitive landscape across all sectors

Old Mutual

More than half of global asset owners are currently implementing or evaluating ESG considerations in their investment strategy

FTSE Russell survey

ESG issues have become much more important for us as long-term investors

CEO of State Street Global Advisors

“Over the long run, COVID-19 could prove to be a major turning point for ESG investing, or strategies that consider a company’s environmental, social and governance performance alongside traditional financial metrics,”

J.P.Morgan

In several instances, rating downgrades and Negative Outlooks have followed major ESG controversies. Growing scrutiny of ESG risks could lead to a higher cost of capital for issuers deemed to have insufficiently managed these risks, particularly those that lack country and business model diversification.

Fitch Ratings
But there is a lack of accessible data to inform their opinions and decisions.

Many mine-sites do not disclose site-level data on issues of strong public interest for communities, workers, governments and investors.

Investor dissatisfaction with the information they receive on ESG risks has increased ... Investors surveyed feel more should be done by corporates to provide robust insight into how they identify, assess and manage key climate and other ESG risks.

One snag with sustainable indices is they rely on ratings agencies ... to grade companies on their ESG performance, and those scores are largely subjective.
ESG is all there in the current CRIRSCO Modifying Factors; we’re already considering this, so why the song and dance?

A Public Report concerning a company’s Exploration Results, Mineral Resources and/or Mineral Reserves is the responsibility of the company acting through its Board of Directors. Any such report must be based on, and fairly reflect the documentation which has been prepared by, a Competent Person or Persons.

The Competent Person should complete an overall assessment of the relative importance of the Table 1 items in terms of their possible impact on the future development of the mineral project and the results of this assessment should be presented in the Public Report.
CRIRSCO\[1\] classification scheme for reporting of solid minerals

**MINERAL RESOURCES**

“A Mineral Resource is a concentration or occurrence of solid material of economic interest in or on the Earth’s crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction”.

**MINERAL RESERVES**

“A Mineral Reserve is the economically mineable part of a Measured and/or Indicated Mineral Resource. ...studies at Pre-Feasibility or Feasibility level as appropriate ..... demonstrate that, at the time of reporting, extraction could reasonably be justified”.

**CONSIDERATION AND OPTIMISATION OF MODIFYING FACTORS THROUGH OPTION SELECTION, RISK ASSESSMENT AND MINE DESIGN**

Many appropriately qualified professionals (e.g. geologists and mining engineers, geotechnical engineering and specialists in all aspects of ESG, engineering, mineral processing, valuation etc) must be involved in this
<table>
<thead>
<tr>
<th>EXPLORATION</th>
<th>PROJECT</th>
<th>OPERATION</th>
<th>CLOSURE</th>
</tr>
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<tbody>
<tr>
<td>GEOLOGY</td>
<td>IS THERE ANY USEFUL ROCK IN THE GROUND?</td>
<td></td>
<td></td>
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<tr>
<td>ENGINEERING</td>
<td>DO WE HAVE THE TECHNICAL EXPERTISE TO EXTRACT IT?</td>
<td></td>
<td></td>
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<tr>
<td>FINANCE</td>
<td>IS THERE DEMAND FOR THE ROCK? ($)</td>
<td></td>
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</tbody>
</table>
| GOVERNANCE  | • PERMITS  
• ACCESS TO LAND  |
| ENVIRONMENTAL | • BIODIVERSITY  
• CATCHMENT SENSITIVITY |
| SOCIAL      | • CULTURAL HERITAGE SITES  
• PREVIOUS EXPERIENCE OF HEAVY INDUSTRY BY COMMUNITY |
|             | • CORRUPTION  
• VISA PROCESS  
• ASM  |
|             | • EASE OF ACCESS |
|             | • CARBON FOOTPRINT  
• OFFSETS  
• COMMODITY BEINGMINED  
• CLIMATE CHANGE ADAPTATION |
|             | • DEVELOPMENT AND INVESTMENT IN LOCAL COMMUNITY  
• DEVELOPMENT OF HOST NATION |
|             | • ARE YOU PAYING THE RIGHT TAX?  
• ALIGNMENT E.G. SDG |
|             | • OPPORTUNITIES THROUGH CLOSURE |
|             | • POSITIVE LEGACY? |
|             | • SELF SUSTAINANING COMMUNITY AT A LEVEL OF DEVELOPMENT THAT EXCEEDS PRE-MINING |

MODIFYING FACTORS:
- SOCIAL
  - CULTURAL HERITAGE SITES
  - PREVIOUS EXPERIENCE OF HEAVY INDUSTRY BY COMMUNITY

- ENVIRONMENTAL
  - BIODIVERSITY
  - CATCHMENT SENSITIVITY

- GOVERNANCE
  - PERMITS
  - ACCESS TO LAND

- ENGINEERING
  - CORRUPTION
  - VISA PROCESS
  - ASM

- GEOLOGY
  - IS THERE ANY USEFUL ROCK IN THE GROUND?
CRIRSCO compliant CP/QP reporting maintaining standards, correctly classifying resources and reserves according to the standard definitions.

Options for how to do it:

Ownership:
- Prospector
- Junior
- AIMs
- FTSE

Decision time-horizon:
- Exploration: 10 years
- Project: 5 years
- Operation: >30 years
- Closure: 200+ years

Traditional focus:
- Tech
- ESG
- Finance
CRIRSCO compliant CP/QP reporting maintaining standards, correctly classifying resources and reserves according to the standard definitions.

EXPLORATION  PROJECT  OPERATION  CLOSURE

OPTIONS FOR HOW TO DO IT

OWNERSHIP

Prospector  Junior  AIMS  FTSE

ASPIRATIONAL FOCUS

TIME HORIZONS

Decision time-horizon  10 years  5 years  >30 years  200+ years

?
Earlier identification of risks saves money and reputation
The South African Guideline For The Reporting of Environmental, Social and Governance Parameters Within the Solid Minerals and Oil And Gas Industries (SAMESG)

The SAMESG Guideline –
Providing guidance and support to Competent Persons

SAMCODES
THE SOUTH AFRICAN MINERAL REPORTING CODES
How does SAMESG relate to the SAMCODES?

It is a guideline that provides additional detail on the information to be considered for environmental, social and governance Modifying Factors.

Which ESG aspects should be reported on?

What information is required?  How much detail is required?
SAMESG Timeline

- SAMESG Committee created
- SAMESG launched with 2016 Codes
- SAMESG guideline effective
- New Chair ToR
- ISAR Honours Award

2013/4
- Drafting and finalizing SAMESG Guideline

2015

2016

2017

2018

2019

2020
- CPR Review
- New members
- SAMREC Table 1
- SAMESG 2.0
- Socialising the SAMESG Guideline
SAMESG Guideline components

- General
- Key plans, maps & diagrams
- Legal aspects
- Environmental parameters
- External social & political parameters
- Internal social parameters
- Conformance & compliance audits
- ESG liability
- Risk

Increasing level of confidence
Role of the Competent Person

CP

Environmental Specialist
Lawyer
Economist
Civil Engineer
Geoscientist
Metallurgist

Mining Engineer
Social Specialist
Governance Specialist
Q&A/Discussion

• What are the opportunities for CRIRSCO to further drive best practice reporting standards to meet current and future investor expectations?
• What are the next steps?