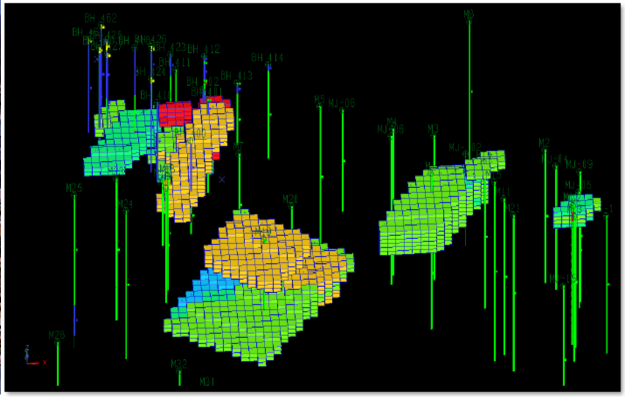
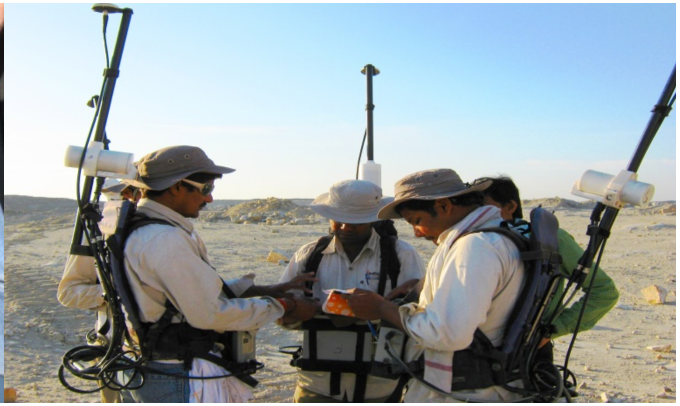
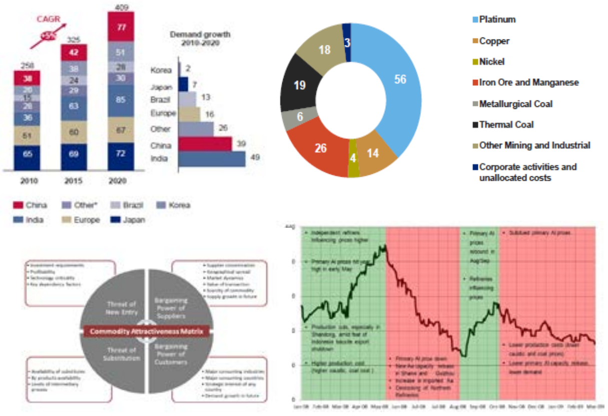
CRIRSCO ANNUAL CONVENTION, JAIPUR, INDIA
7th and 8th November, 2016



TRANSITION TO INTERNATIONAL REPORTING STANDARDS IN INDIA:

Change Management Requirements for the Stakeholders





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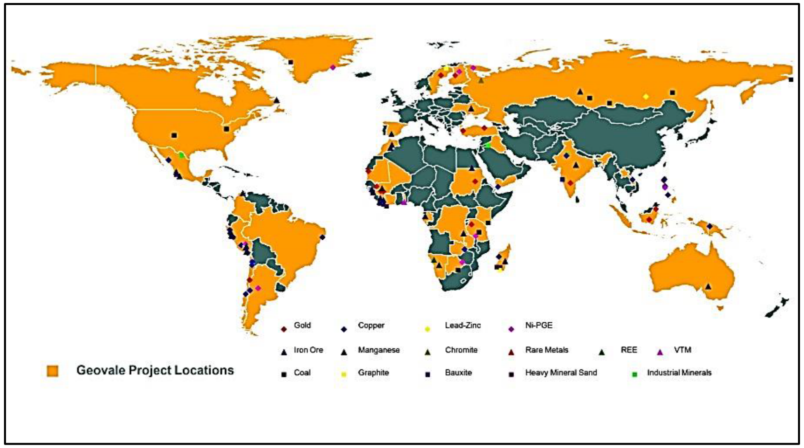
About Geovale Services

Geovale is a team of consultants with multi-commodity experience in all continents of the world, working globally in the entire value spectrum from mineral exploration to mining to commodity trading

Our specialised teams include

- Exploration Project Management Team
- Resource and Mine Planning Studio
- Drilling and Drillsite Management Team
- Hydrology and Geotechnical Team
- Mineral Analytics Team
- Specialised Mining Services Team



CONTENT

- Illustrations of current practices
- Change management requirements
- Review the Road Ahead!

Current Practices in India
Illustration 1

Approval of mine plans based on:

- Unreliable and un-auditable exploration data
- Under-reported resource

Thus,

<u>Approved mine plans,</u> are different from

- **<u>The operational plans</u>**, which are different from
  - **<u>The short term plans / production schedule</u>**

Current Practices in India Illustration 2

- Mineral block auctions are being are being valued and bid for, based on government written geological reports

- None of the government reported Geological and Exploration Reports have the desired auditability of the data and materiality of information

Some of the auctioned asset seeking external project funding would require a significant re-exploration *to* get project funding

Current Practices in India
Illustration 3

The State Bank of India recently announced an initial funding of a billion $$ for an Australian coal mining project promoted by a large Indian mining company. After the Indian and international media highlighted that many other international banks have earlier refused lending to the same project on various risk assessments, SBI had to withdraw the funding decision.

We believe SBI had no project assessment done, before their announcement to fund the project

Implications of Adopting an International Reporting Standard

Every stakeholder in the industry has to go through significant change management process to migrate from their previous practices to new standards based reporting

The stakeholders list include

- Statutory agencies (IBM and DMGs)
- Geological surveys (GSI, MECL, CMPDI, DGM)
- Exploration and mining companies
- Service providers
- Human resource developers
- Financial institutions

Change Management Requirements - Statutory Agencies

- Mine plan approval process would have to focus on
  - Transparency and auditability of exploration data and report
  - Ownership and accountability of the Competent Person / Qualified Person for establishing the Geological Resource
  - Mine Plan following a robust process of Reserve estimation

- Create a process of benchmarking asset transactions (being made easier through MMDR Amendment 2015) through the valuation standards / code

- IBM has to work on a transition plan for the reclassification of India's mineral resource to CRISCO standard

Change Management Requirements Geological Surveys

Geological Survey Agencies (GSI, MECL and State DGMs) are

- Spending 90% of the total exploration $$ is India
- Control exploration in over 99% of exploration potential areas in the country

The exploration and resource reporting practices of the states agencies have to get aligned with the CRIRSCO reporting standards

- Accountability of a competent persons through the exploration project
- Exploration to Standard Operating Procedures
- Create processes for sampling chain of security and auditable exploration data
- In-house laboratories to align with international standards requirements
- Data reporting and exploration reporting practices to the requirements of transparency and materiality

Change Management Requirements Exploration and Mining Companies

Exploration and mining companies would have to essentially operate differently

- Prepare for a more transparent operational and reporting environment (refer ICMM standards)
- Resources and reserves “may” require reassessment and reclassification. Asset valuation to new valuation standards
- Training for geologists, mining engineers, processing engineers and managers
- Detailed Project Reports for project funding could change
- Statutory reporting standards expected to change

Change Management Requirements Consultants and Service Providers

Consultants and service providers would be playing a critical role of interfacing between exploration and mining companies and other stakeholders (eg statutory agencies and financial institutions)

- Get conversant and compliant with the new reporting standards
- Specialised service providers (drilling, geophysics, geochemistry) to operate to international standards
- Consultant’s accountability as Independent Reporting CP / QP
- Consultants to develop capabilities to handhold exploration and mining companies for compliance to the new transparent and auditable reporting practices and requirements

Change Management Requirements For Human Resource Development

Universities, colleges and skill development agencies and In-house HR management of exploration and mining companies would have the responsibility of training the technical and management team to the new required changes

Critical elements of the training may include:

- Understanding of compliance requirements to international sustainable development standards (ICMM Principles)
- Operating and reporting with international standards of transparency and accountability
- SOP driven operations
  - Exploration management
  - Prefeasibility studies
  - Health and safety management
  - Environment and community management
- Asset valuation standards and concepts

Change Management Requirements Financial Institutions

- It is expected that Indian financial institutions would champion adaptation of CRIRSCO standards and reporting practices, ideally, under the leadership of Securities and Exchange Board of India (SEBI)'s leadership

- This would be completely in alignment with SEBI's current emphasis on voluntary reporting for Sustainable Development for the top 500 companies listed in BSE and NSE

- This would also allow SEBI to list junior mining companies, which would have a significant role to play in Govt of India's target of doubling the GDP contribution from the mining industry

- Public, bank and private funding agencies for exploration and mining projects are expected to adapt to the CRIRSO reporting standards for evaluating the assets

Early Potential Hurdles

Some of the comments in first session yesterday indicate either the lack of understanding or the **POTENTIAL RESISTANCE TO CHANGE** expected in adopting the proposed CRIRSCO standards

"Reports which are being provided for assets being auctioned through the framework of The Evidence of Mineral Content Rule in the new MMDR 2015 **ALREADY COMPLY** with CRISCO standards"

Early Potential Hurdles

" We believe that there is not much of a difference between UNFC and CRISCO standards.!"

"We have just removed the requirements for a Recognised Qualified Person (RQP) in India.

Why should we go back to a standard which requires a Competent Person!"

Change Management for Adapting International Reporting Standards: CONCLUSIONS

- There will be a long drawn process for transition to CRISCO standards in India
- CRISCO buy in of following three **KEY STAKEHOLDERS** is very important
  - Ministry of Mines and statutory agencies (IBM, DMG and SEBI)
  - Financial institutions
  - Exploration and mining companies

Change Management for Adapting International Reporting Standards: CONCLUSIONS

Indian NRO task is cut out till we get a full recognition from CRIRSCO

- Create a practicable time line to reach full adaptation of CRISCO standards in India and get CRISCO membership

- Get in-principle buy in of all key stakeholders

- Create Indian Exploration and Mining Reporting Standards.

Change Management for Adapting International Reporting Standards: CONCLUSIONS

- Create a robust and sustainable control system to manage the Indian standards
- Handhold all stakeholders through the entire transition phase
- Create a training plan for all the stakeholders
- Create a succession plan for sustainability of the process

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