

MMSD Assurance Group Meeting
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**TAXONOMY OF POTENTIAL
TOPICS FOR ANALYSIS**

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1. Markets

- Product is tangible and producers anonymous
- High level of ‘disconnect’ between production and consumption
- Limited opportunity for ‘branding’
- But these markets are in dynamic change
- Are there new opportunities to capture the value in identification of origins?

2. Mining and Community Health

- Holistic view. Health is not just absence of disease
- Environmental factors only part of the picture

Start up phase (Exploration and Construction)

- Many people arriving; disruption of traditional community
- Positives: Examples: access to better food, clinic, doctors
- Negatives: family instability; alcohol; diseases (HIV/AIDS)

Operation

- What kind of community?
- Isolation, family separation

Closure

- Does the health infrastructure survive?
- Instability, stress, family disruption
- Spread of diseases as community dispersed (HIV)

3. Culture

- Cultural diversity is an important value; conceivably vital to human future
- Mining brings the global community into direct contact with distinct local cultures
- Mining/Exploration companies are not designed as appropriate agents of cultural transmission
- Change affects everyone
- Sense of control over our cultural identity
- Attempts to ensure local economic benefits could make these problems worse, not better

4. Land Conflicts

Companies

- Cannot develop new projects without access for exploration
- Need security of ownership for project finance

Communities

- May not share view of land as a commodity
- May have established use without legal title or lack control over sub-surface
- Community vs. individual compensation; relocation; land valuation

Civil Society

- Balancing mining land use with more diverse values (biodiversity; landscape)

Government

- General good vs. interests of a few landowners
- How can/ should we identify 'Go' or 'No go' zones?
- Will 'Go' areas always be in poor communities/ regions?

5. Economic Rents and the Local Community

- How much of the take goes to the local community?
- What is the negotiating mechanism?
- National government promises vs. local reality
- Lack of local government capacity to manage abrupt change or to spend, manage, or invest money
- Community sponsored foundations:
 - Who controls them?
 - What are the rules?

6. Information

- Dramatic changes in information systems have transformed the business environment
- Trust requires access to reliable information
- Science requires access to reliable information
- Trusting information and/ or good science require understanding of how this information is produced
- In most of the world, even very basic information ("What is in this water?") is not gathered, or not gathered through systems which are trusted
- Or there is no right or access to it

7. Toxicity of Metals

- Compared to what?
- Potential for abuse of these concerns: protectionism
- Misuse of models developed elsewhere (e.g. low levels of metals are necessary)
- Use and limits of the Precautionary Principle
- Who gets to be a party to this discussion? – North/South issues

8. Finance

- Community/Environmental/Political factors are a major source of risk
 - ???: Case studies of projects which do not get built: ??
- Does lending in regions with limited capacity to manage environmental/community/cultural factors entail responsibilities?
- Role of the public lending sector (World Bank, regional banks, ECAs)
- How should private sector sources of finance be reacting to these factors?
- Sovereignty issues
- Limitations on lending institutions as 'regulators'

9. Managing Mineral Cycles

- Serious volatility
- Affected by technological and other changes (nitrate, uranium, oil shale)

Government

- Very high income at times (what do we do with the money?)
- Revenues shrink or disappear at others (perhaps when most needed)

Companies

- Abrupt economic changes can require unanticipated closure
- Need for ongoing closure planning (plus bond/guarantee?)

Community

- Do the resources shrink when we need them most?

10. Small scale and Artisanal Mining

- There are livelihoods; high number of participants
- Problems of the informal sector (e.g. insecure land rights)
 - Community health issues (Hg vapour; HIV; Drugs/Alcohol)
 - Limited capacity
 - Environmental/ Social impacts
 - Where are the 'keys' to change?

11. The Long View

The Past

- There are some difficult historic truths in the industry (Labour, Community, Environmental)
- Like it or not, these do condition current public attitudes towards mining
- Frank acknowledgement of these problems may be a requirement for moving forward

- Dealing with legacy issues may be critical to the future of the industry

The Present

- Mines and smelters have a long life; we are often looking at projects designed by previous generations
- Problems become evident slowly but may be difficult or enormously expensive to cure once we are sure they are present
- When is it proper to pass costs on to future generations?

The Future

- Managing and paying for long term future costs (e.g. water treatment; maintenance of drainage canals)
- Materials science: How are markets going to change?
- Technology: How will minerals be produced, processed, used, recycled or disposed of?

12. Coal and Uranium

- Climate change: is this a limit on coal use?
- Climate change: is nuclear power part of the answer?
- Nuclear proliferation to unstable governments or sub-national groups
- Long term disposal of radioactive waste

13. Additional Areas

- a) Gender Issues
 - How does/mining affect/disturb traditional gender roles – What opportunities does this create?
- b) Why would a country want mining:
 - If it must lower the ‘take’ to attract investment
 - If a relatively low level of jobs generated
- c) Energy efficiency and mining
 - How sensitive are total mining costs to energy costs?
- d) Reparations for past investment practices
- e) How can industry leaders effectively pressure poor performers?
- f) Mining and Social Stability
 - ‘Diamond Wars’
 - Effects of national economic/political dependency on mining
 - Mining as a force for stability

- g) Mining and North-South Equity
- h) Social and Economic Preparation/Planning for Mine Closure
- i) Must look more at issues of use, final markets, recycling, recovery, final disposal