Using Impact Assessment and HR Due Diligence to redefine ‘safe tailings’ for a just transition

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What ESG factors are investors asking about?

From: Ernst & Young ‘Top 10 business risks and opportunities for mining and metals in 2024’

A RISK ASSOCIATED WITH THE NEED FOR COPPER IN THE JUST TRANSITION

Typical copper mine (2015) produced 200,000 tonnes of tailings/day from 270,000 tonnes mined (1)

Increases Each 1/3 Century:
- Waste volume - 10-fold
- Area of waste – 5-fold
- Heights of tailings dams 2-fold

Risk = Likelihood x Probability
FOR DAMS
Probability ‘somewhat’ proportional to height
Consequences – ‘somewhat’ proportional to volume
20X increase in potential risk of failure
(2)

1. Grid Arendel: https://www.grida.no/resources/11439
2. A.M. Robertson presentation Tailings and Mine Waste Conference 2011
Global Industry Standard for Tailings Management - GISTM

The ‘ideal’ - social assessment integrated into tailings management decision making

- Human Rights Due Diligence & SIA/EIA of at-risk areas
- Integrated Knowledge Base informs decisions & processes
- Assess human exposure and vulnerability to potential failures
- Reduce probability & consequences - apply mitigation hierarchies
- Multi-disciplinary risk assessments and MAA
- Decisions that prioritize 'keeping people safe'
Requirement 2.4 - key integration link

In order to identify the groups most at risk, refer to the updated tailings facility breach analysis to assess and document potential human exposure and vulnerability to tailings facility credible failure scenarios.

- Who is exposed to harm and in what ways in case of a failure?
- How does vulnerability to impact change who is most at risk?

https://rise.articulate.com/share/OkwjiT-8S4fMIzqlQZpJ_BIwh0ZgW4qd#/lessons/dMQw5V0enUXsnDQxRUE9tY2Kbmgd025q
This is a work in progress!

ONGOING RESEARCH

ONGOING IMPLEMENTATION BY COMPANIES

ONGOING EFFORTS TO FUND AN INDEPENDENT OVERSIGHT ORGANIZATION
Human Rights Due Diligence & IA of at risk areas – part of IKB

Integrated Knowledge Base informs decisions & processes

Assess human exposure and vulnerability to potential failures

Reduce probability & consequences
Mitigation & control hierarchy

Multi-disciplinary risk assessments and MAA

Decisions that prioritize 'keeping people safe'

Initial indications
Focus has been primarily on reducing probability
Carrying out focused IA – some cases HRDD but is it changing decision-making?

The **Integrated Knowledge Base** is not that – has yet to be translated into *integrated thinking*

Not assessing human exposure and vulnerability - key to identifying *harm* and bringing that into analysis

Integration across engineering and social functions is not a comfortable ‘fix’
Redefining ‘safe’ tailings?

Going beyond engineering fixes
Prioritizing the elimination of *harm* from tailings- addressing the consequence side of the risk equation -

We have the tools but not the knowledge - or to date the *experience* at applying it

Towards Zero Harm: A Compendium of papers prepared for the Global Tailings Review -
https://globaltailingsreview.org/compendium/

*Social Performance and Safe Tailings Management: A Critical Connection*. Susan Joyce, Deanna Kemp

*Lessons for Mining from International Disaster Research*   Deanna Kemp
Let’s continue the conversation!
Post questions and comments in the IAIA24 app.

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