Global Mining & Tailings Safety Initiative
January 2020

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Initiative Co-Chairs
Issue 1: More mined for less as ore grades decline

Issue 2: Trend of tailings dam failures

Issue 3: Unknown number of dams and locations

Issue 4: Failure to implement Past recommendations & lack of a global standard

Issue 5: Fundamentally waste treated as an externality
Global Mining & Tailings Safety Initiative

1st Roundtable: 4th March
2nd Roundtable: 1st April
3rd Roundtable: 7th May
4th Roundtable: 10th June
5th Mining & Tailings Safety Summit: 31st October

Investor lead for engagement with impacted communities in Brumadinho and Mariana
1. A global independent and transparent classification system of the world’s tailings dams.

2. Based upon the consequences of failure.

3. Independently audited and accessible to public and accessible to communities, workers, investors, insurers, lenders and regulators.
BHP embraces idea of independent tailings dam monitor after deadly breach

The deadly collapse raises questions on whether mining companies are spending enough to build and maintain waste- and water dams.

Church of England and fund managers in dam safety call

Investors call for action after Brazilian mining disaster
Response:
Co-Convened:
Independent Global Review led by Professor Bruno Oberle
Tough new global standards on mining waste storage under consideration

Harry Dempsey in London NOVEMBER 15 2019

Tough new safety standards for tailings dams, including the appointment of a qualified and experienced engineer to check their safety, have been proposed by a group representing the world’s biggest miners as they seek to avoid any further disasters.
2nd Intervention: Urgent Disclosure

- Letter to CEOs/Chairs of 726 listed extractive companies

- Disclosure required on all joint ventures & non-operated JVs
  - 45 days to respond
  - US $13 trillion in AUM supported

- 20 disclosure questions developed in consultation with:
  - Independent expert input
  - Independent technical expert input
  - Input from ICMM
  - 3 large and 1 small company input
Response:

Of the 726 companies contacted the breakdown of responders to date:

- **40 out of the top 50** largest mining companies in the world responded.
- **74% of the industry** by market capitalisation **responded**.
- **55% of the industry** by market capitalisation **fully and publicly disclosed**.
- **23 out of 23** publicly listed members of ICMM responded.
‘Sense of Dread’: How a Mining Disaster in Brazil Raised Alarms in Minnesota

Mine-waste dams around the world have drawn new scrutiny after a collapse in Brazil this year killed hundreds.
THE LOOMING RISK OF TAILINGS DAMS

By Moira Warburton, Sam Hart, Júlia Ledur, Ernest Scheyder and Ally J. Levine

PUBLISHED DEC. 19, 2019
UPDATED JAN. 3, 2020
3rd Intervention
Independent Global Database to Drive Transparency & Best Practice

Established in 1949, our mission is to enable environmental knowledge that encourages positive change. We do this by organising and transforming available environmental data into credible, science-based information products, delivered through innovative communication tools and capacity building services targeting relevant stakeholders.

Satellite Applications Catapult

THE CHURCH OF ENGLAND
PENSIONS BOARD

UNEP

Council on Ethics
Swedish National Pension Funds
RECOGNIZING
A MINE OF INFORMATION
A source of information for companies, investors, regulators and communities

DISCLOSURES
This portal brings together all of the disclosures that mining companies have made about their tailings storage facilities. It gives communities, investors, regulators and the media unprecedented access to information about mine waste.

98 MINING COMPANIES
162 PARTNER COMPANIES
305 MINING OPERATORS
764 MINE SITES
1939 TAILINGS STORAGE FACILITIES
Database Phase 2

Space Enabled Monitoring of Tailings

There is a clear need for cost-effective monitoring of tailings dams, both operational and abandoned, to help us to try to avoid a new disaster.

We are working in an R&D project using latest satellite technologies to generate up to date independent information on tailings storage facilities.
4th Intervention:

4th: Financial Working Group ongoing examination of the relationship with company annual reporting

- Tailings are decision material for investors
- Unknown cost extremely difficult to estimate
- Role of insurance?
5th Intervention:

- Responding to community concerns

STATEMENT ON BRUMADINHO AND MARIANA TAILINGS DAMS
Friday 24th January 2020

On the eve of the first anniversary of the Brumadinho disaster, Cllr Doug McMurod, Chairman of the Local Authority Pension Fund Forum (LAPFF), makes the following statement at the Global Mining & Tailings Safety Summit on behalf of the Church of England Pensions Board, the Council of Ethics for the Swedish Public Pension Funds and supported by the UN backed Principles for Responsible Investment delivered.
6\textsuperscript{th} Intervention:
Investor Expectations of the Mining Industry

In order for investors to be confident that the mining sector and individual companies can retain their social and financial licence to operate, the following principles have been developed by the Mining and Tailings Safety Initiative. For companies we expect the following Principles to guide company decision-making in relation to tailings storage facilities:

• Principle 1: Zero Harm to People
• Principle 2: Net-Zero Impact on the Environment
• Principle 3: Community Voices Must be Heard
• Principle 4: Implementation of the Global Standard: Best Practice as the Minimum Standard
• Principle 5: Public Reporting and Transparency & Independent Global Monitoring

Investor Commitments for the Mining Industry

In support of these Principles for mining companies investors have agreed the following Principles for their own interaction with the sector be that in the provision of finance:

• Principle 1: Zero Harm to People and the Environment
• Principle 2: Adoption of the New Global Standard on Tailings Management
• Principle 3: Recognising Tailings Risk
• Principle 4: Legacy and Phasing out of Tailings Waste
• Principle 5: Global Disclosure & Reporting on Tailings Management
Joint Request for Partnership:

Challenge 1: Addressing the Legacy of Tailings & Global Monitoring

- Need to work together to establish an independent 24/7 Global Alert System for all tailings dams.
- Need to work together internationally to identify and address existing tailings facilities that pose an unacceptable risk to people or the environment.
- Companies must work with the finance sector and governments should develop an appropriate mechanism to ensure the most dangerous TSFs are removed or made safer.

Challenge 2: Phasing Out Tailings Facilities and Accelerating Technology

- Companies must work together non-competitively on the issue of tailings safety (as many do on health and safety matters) and on phasing out tailings facilities within the mining industry.
- Where technologies exist, these should be deployed rapidly and at scale, and not retained within one or two major operators.
- This is a sector-wide issue and technology solutions need to be applied across the sector as a whole.
Challenge 3: Financial Reporting & Standards

➢ Waste has often been treated as an externality, and the characteristics of the risks around tailings failure mean that it is extremely hard to make and report quantitative assessments.
➢ We recognise a need to explore improved ways of reporting on tailings, and this process has begun through the disclosure request of the Church of England Pensions Board and the Swedish Council on Ethics, and through the Global Mining and Tailings Safety Initiative working group on Disclosure.

Challenge 4: Insurance and Financial Protection

➢ Stakeholders ought to have confidence that appropriate insurance, “tailings bonds” or other financial provisions are in place if the worst should happen; in order to guarantee remedy for those affected, and rehabilitation for the environment.
➢ We understand that the commercial options in this regard are under-developed, and regulatory requirements vary and need to be aligned, potentially starting at the international level. We believe that it is in the interest of all stakeholders for appropriate finance and finance instruments to be available. We recognise that this requires action at the international level, and may require companies, governments and investors to collaborate to develop and deploy appropriate options.
Reporting & Insurance

New Global Standard

24/7 Tailings Alert System

Initiative to Remove Most Dangerous Dams

Investor Principles and Expectations

Accelerating Tailings Technology

Global Database

Joint Call to Governments and Countries to identify and remove most dangerous facilities and creation of a global fund to support urgent action

Joint Call to industry to accelerate technology and collaboration across the industry

Initiative to improve corporate reporting and joint call for development of new insurance provision

Phase 1: Independent database launched by GRID-Arendal supported by Church of England, Swedish Council of Ethics and UNEP.

Phase 2: With UK Satellite Catapult integrating satellite capabilities

Joint Call to industry to accelerate technology and collaboration across the industry

ICCM, PRI, UNEP Co-convened Independent Global Tailings Review

Joint call to establish global 24/7 hub using all monitoring data