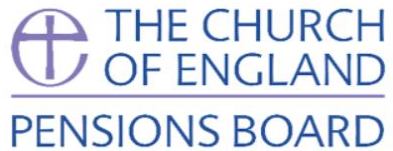




The Church Commissioners for England



Church Commissioners / Church of England Pensions Board / Vale Tailings Dam

Media Coverage

5 March 2019

Church of England and fund managers in dam safety call

Investors with assets of over £1tn call for greater oversight following Brazil disaster

Henry Sanderson in London, January 31, 2019

The Church of England and fund managers with more than £1tn in assets have called for independent safety monitoring of tailings dams, following the deadly spill at an iron-ore mine in Brazil that has left at least 84 dead.

The investors said there should be an accessible database with annual audits of all tailings dams as well as verification that the “highest corresponding safety standards are being implemented.”

“Simply put these failures of tailing dams should not be happening,” said Adam Matthews, director of ethics and engagement for the Church of England Pensions Board.

“These are not black swan events. An independent classification system will ensure that communities, workers and investors know the safety standards of tailings dams are in place and if they are being applied. This proposal will drive a new level of accountability and transparency within the mining sector.

“A tailings dam is typically used to store byproducts of mining operations.

Brazilian mining company Vale said it would decommission dams similar to the one that burst last week, killing at least 84 people and leaving hundreds missing. The tailings dam used to store waste material at the Córrego do Feijão mine was built in the 1970s.

On Tuesday, authorities in the Brazilian state of Minas Gerais arrested employees and engineers allegedly involved in the dam burst. This included two contractors from German company Tüv Süd, which inspected the dam in September.

The accident is the second big failure of a tailings dam in less than four years. In November 2015, dams holding waste material at the Samarco iron ore mine, owned by Vale and BHP Billiton, broke, killing 19 people.

The Church of England’s comments come as global investors are increasingly focused on ensuring mining companies reduce their environmental footprint, improve their governance and reduce the number of fatalities.

An estimated 26 per cent of global funds under management were run with environmental, social and governance (ESG) considerations last year, up from 21 per cent a year earlier, according to McKinsey, the consultancy.

The succession of failures at tailings dams means something needs to change in the sector to reassure communities, investors and the public, said Mr Matthews.

An independent verification system was previously proposed by the industry body the International Council on Mining and Metals in 2016, but this was not taken forward.

ICMM could not be reached for comment. It has yet to issue a statement in response to the deadly dam burst in Brazil. This has angered some mining executives who expected a prompt response from the industry body.

The funds will jointly convene a meeting in London of international experts and major investors in the sector, Mr Matthews said. It will be chaired by the Bishop of Birmingham and the Convener of Bishops in the House of Lords, David Urquhart.

The group includes the Church of England funds; Swedish Pension funds; Dutch funds APG and Robeco; the UK's LGPS Central fund; New Zealand Super, and US fund BMO Global Asset Management.



Miners ‘can’t be trusted on safety’

Emily Gosden Energy Editor

February 1 2019, 12:01am,

Mining companies can no longer be trusted to regulate the safety of their own dams after the Brumadinho disaster in Brazil, the Church of England and other leading funds with £1 trillion under management have said.

The Church, an influential voice on ethical investing, told *The Times* its own funds had sold their holdings in Vale, the Brazilian miner that owned the Brumadinho dam, after last Friday’s collapse that killed at least 99 people. A further 259 people are missing presumed dead after a dam holding back mining waste or “tailings” in Minas Gerais burst, unleashing millions of tonnes of sludge and burying all those in its path.

The disaster came three years after 19 people were killed by the collapse of another dam in Brazil, Samarco, which was owned by Vale and BHP Billiton.

Vale, the world's biggest iron ore producer, is listed in New York and Sao Paulo.

The Church yesterday joined with a string of other major investors to call for “a global independent public classification system that monitors the safety risk of mining company tailings dams”, with published annual audits.

The Church has two funds: the pensions board which manages £2.5 billion in assets, and the £8.3 billion church commissioners' investment fund which finances its mission.

The intervention on mining safety was backed by LGPS Central, which manages local government pension schemes in the Midlands, the Swedish public pension funds, Dutch funds APG and Robeco, New Zealand Super, a sovereign wealth fund, and Canada's BMO Global Asset Management.

Adam Matthews, director of ethics and engagement for the Church of England pensions board, said: “Simply put, these failures of tailing dams should not be happening. These are not black swan events. An independent classification system will ensure that communities, workers and investors know the safety standards of tailings dams are in place and if they are being applied.”

Mr Matthews said that the two Church funds had less than £10 million invested in Vale but this had been sold while it carried out an “ethical review”.

John Howchin, secretary general of the council on ethics for the Swedish funds, said: “We have lost confidence in the sector's ability to regulate itself on this issue.”

Church of England sells shares in miner Vale after dam disaster kills hundreds

The Church of England has sold its stake in Brazil's Vale after a dam operated by the miner burst, potentially killing hundreds of people.

August Graham Thursday 31 January 2019 9:38pm

Around 300 people are still missing after a dam handling waste from a mine in the state of Minas Gerais collapsed late last week, unleashing a torrent of water and mud which engulfed parts of the town of Brumadinho.

Now the Church of England has sold its small holding in the world's largest iron miner, City AM understands.

The Church had, indirectly, bought shares worth several million pounds, small considering Vale's 242bn Brazilian reais (£50bn) market value.

It sold the shares in the days following the disaster.

The news comes after the Church, Swedish pension fund AP, and other funds with around £1 trillion in assets, yesterday called for an international body to regulate mining safety.

The body would be independent of miners and annually audit the types of dams which caused the disaster.

The call mirrors a similar recommendation in a 2016 report by the International Council on Mining and Metals which was never implemented by the industry.

Adam Matthews, director of ethics and engagement for the Church of England Pensions Board, said: “Simply put these failures of tailing dams should not be happening. These are not black swan events.

“An independent classification system will ensure that communities, workers and investors know the safety standards of tailings dams are in place and if they are being applied. This proposal will drive a new level of accountability and transparency within the mining sector.”

The Church is joined in its pleas by BMO Global Asset Management, LGPS Central Limited, Robeco and others.

Almost 100 people have been confirmed killed in the tragedy, but with another 250 still missing that figure is expected to rise further.



Investors call for action after Brazilian mining disaster

1 February 2019 By Gail Moss

The Church of England is leading calls from institutional investors for a global independent public classification system to monitor the safety risk of “tailings” dams linked to mines, after a collapse in Brazil killed 100 people.

More than 200 people are missing following the collapse of the dam in Brumadinho in the south east of Brazil on 25 January.

The dam was an embankment used to store by-products of iron ore mining operations, and its collapse resulted in mudslides that engulfed local communities. The human toll was accompanied by potential contamination from the red iron ore waste that swept across the countryside.

The Mina Feijão operation in Brumadinho is owned by Brazil's largest mining company, Vale.

The Church Commissioners for England and the Church of England Pensions Board (CEPB) have been joined by the Council on Ethics for Sweden's AP1, AP2, AP3 and AP4 funds, Dutch pension giant APG, the UK's LGPS Central and New Zealand Super, as well as several asset managers.

The group has proposed that the new classification system for safety risk should be independent of mining companies and require annual audits of all tailings dams, as well as verification that the highest corresponding safety standards were being implemented. All reporting should be made public through a database accessible to communities, governments, civil society and investors.

John Howchin, secretary general of the Council on Ethics, said: "We have lost confidence in the sector's ability to regulate itself on this issue. The consequences when something goes wrong are clear. We will be working with other investors to insist the necessary steps are taken."

Adam Matthews, director of ethics and engagement for the CEPB, said: "These failures of tailings dams should not be happening. These are not black swan events.

"An independent classification system will ensure that communities, workers and investors know the safety standards of tailings dams are in place and if they are being applied. This proposal will drive a new level of accountability and transparency within the mining sector."

The group is planning to convene a meeting of international industry experts and major investors in the sector. This will take place in London, chaired by David Urquhart, Bishop of Birmingham.

All shares in Vale held within the Church Commissioners' and CEPB's portfolios – worth £10m (€11.4m) in total – were disposed of shortly after the disaster occurred.

Institutional investors have previously called for change at mining corporations including Vale [following a similar disaster in Brazil in 2015](#).

The CEPB said it has engaged for some years in ongoing dialogue with mining company senior staff in relation to the companies' role in society. It has also "heavily engaged" with commodities giant Glencore on climate, and health and safety.



Vale suspended from Corporate Human Rights Benchmark over dam disaster

[Terry Slavin](#) on Feb 1, 2019

Terry Slavin reports on the fallout from Brazil's latest deadly mining accident and investor calls for an global independent body to monitor mines from a group led by the Church of England Pensions Board

Vale, the Brazilian mining company responsible for last week's deadly dam disaster, has been removed from the Corporate Human Rights Benchmark, where it had controversially ranked in sixth place last year.

"The Corporate Human Rights Benchmark seeks to provide robust and credible information on companies' actions to respect human rights across their business," Dan Neale, programme director at CHRB, said in a statement. "Given this latest disaster involving Vale, we have moved to ensure their inclusion in our benchmark is not now misleading."

At last count, more than 100 people were killed and hundreds more remain missing after a tailings dam burst at the company's Brumadinho iron ore mine, spewing 12 million cubic metres of mud and debris, which engulfed houses, cars, buses and hundreds of workers, many of them eating lunch in a cafeteria located just below the dam.

"CHRB said it would review its methodology and make any adjustments needed to deal with such emergent, large scale, human rights impacts"

On Tuesday, police in Brazil arrested five people as part of an investigation into the dam collapse and said three of them were officials from Vale. Meanwhile investors in the US opened a series of class actions lawsuits against the company, which is listed on the New York Stock Exchange, for failing to disclose environmental risks. Vale, which is the world's largest producer of iron ore, a component of steel, announced it would decommission 10 other 1970s-era dams similar to the one that burst.

It was the second deadly dam disaster in three years. In November 2015, a dam owned by Samarco, a 50-50 joint venture of Vale and Anglo-Australian mining firm BHP Billiton, burst in another area of the state of Minas Gerais, killing 19 people in what was then considered Brazil's worst environmental disaster.

CHRB said its scores provide a proxy for good performance, but its directors had already concluded before the latest disaster that "the current approach for assessing human rights allegations against companies was not particularly well suited to dealing with rare, large scale harm events, such as the Samarco disaster".

It said it would review its methodology and make any "adjustments needed to deal with such emergent, large scale, human rights impacts, when more information is available".

Vale's high ranking in the 60%-70% band on the 2018 CHRB index, just below Unilever, and 20 places higher than in 2017, had raised eyebrows, particularly among NGO supporters of the benchmark.

The CHRB differs from most ESG benchmarks in that it uses publicly available information, rather than information submitted by companies, and measures how companies perform across 100 indicators based on the UN Guiding Principles on Human Rights, on issues such as forced labour, protecting human rights activists and the living wage. FTSE 100 company BHP Billiton, co-owner of the Samarco dam, ranked even higher last year, at number three on the list, behind Rio Tinto and top-scoring Adidas.

“Our assessment [of Vale] showed a level of improvement, with changes being implemented in the wake of the Samarco incident”

This is despite the fact that many of the victims of the 2015 Samarco disaster are still awaiting resettlement and compensation from Vale and BHP Billiton, and a delegation of victims had travelled to London in October to press their case.

At the launch of the 2018 benchmark in November, Peter Webster of EIRIS Foundation addressed concerns about Vale head-on, saying that companies are scored not on the number of human rights allegations are made against them, but how they handle such complaints, including whether they have implemented management changes to make improvements.

In the statement this week, the CHRB said it recognised the sensitivities around Vale, “But our assessment against the CHRB methodology showed a level of improvement in several areas, with changes being implemented in the wake of the Samarco incident.”

Vale’s CEO, Fabio Schvartsman, is described by the Financial Times as one of Brazil’s most experienced executives.

The CHRB is not alone in suspending Vale, which attracts investment from the growing number of emerging markets ESG funds.

This week, the FT reported that one of the biggest ESG ranking agencies, Sustainalytics, downgraded its recommendation, while the Church of England Pensions Board said that it had sold its holdings in Vale in the wake of the disaster.

“We are confident of the power of the benchmark and its importance, and we are looking at a full methodological review next year”

Phil Bloomer, executive director of the UK-based Business & Human Rights Resource Centre, and a director of the CHRB, said one of the main reasons that Vale had scored high in 2018 was that it had policies and procedures in place to remedy the victims of the Samarco disaster. “But a lot of that has yet to feed into practice,” he said.

He pointed out that the Samarco communities were dismayed when a federal court decreed in December that emergency financial assistance they had received from the companies would be deducted from the compensation they are still awaiting for loss of livelihood and property damage in the disaster three years ago.

“That’s an extraordinary thing to have happened. According to the public defender’s office that was at the request of the two companies,” Bloomer said. “From our point of view those are serious issues that we need to make sure the benchmark reflects. But we are confident of the power of the benchmark and its importance, and we are looking for ways to do small adjustments this year while looking at a full methodological review next year.”

Sasja Beslik, head of group sustainable finance at Nordic investment bank Nordea, one of the investor members of CHRB, said he strongly supported the CHRB’s decision to suspend Vale and to look at changing its methodology to try to reflect more closely how human rights risks are addressed in day to day operations.

But Beslik also said it was up to ESG funds to do their own due diligence. “Everyone [in the investment industry] talks about ESG. It’s almost standard operating procedure for companies. The music has changed and they’ve learned how to dance to it. But there are many pitfalls in the industry in that we are very bad at following through and [engaging

with] the companies on the ground. ... [Fund managers] are content to view from a distance.”

“Simply put, these failures of tailing dams should not be happening. These are not black swan events”

On Thursday a group of funds representing over \$1.3trn in assets under management including the Church of England Pensions Board, Swedish Public Pension funds, Dutch funds APG and Robeco, New Zealand Super, the UK’s LGPS Central and Canada’s BMO Global Asset Management, jointly called for a global independent public classification system to monitor the safety risk of tailings dams. The fund managers want annual audits of all tailings dams, as well as verification that the highest corresponding safety standards are being implemented.

Adam Matthews, director of ethics and engagement for the Church of England Pensions Board, said: “Simply put, these failures of tailing dams should not be happening. These are not black swan events. An independent classification system will ensure that communities, workers and investors know the safety standards of tailings dams are in place and if they are being applied. This proposal will drive a new level of accountability and transparency within the mining sector.”

In an interview Matthews said the group of investors decided to take this step because the International Council on Mining and Metals had failed to implement its own recommendations for a classification system for dams, despite the concerns raised by investors repeatedly in the wake of the Samarco disaster.

"We acknowledge that society requires many of the resources from this [mining] sector for the low-carbon transition, so we are keen to remain invested in the sector," Matthews said. "But we need a different approach because the current system is clearly not working.... That's why we are now making a clear intervention, because we need something to change."

Anglo American open to more engagement on dam safety, CEO says

Neil Hume February 4, 2019

Anglo American is open to engaging with investors, policymakers and other groups who want more information on dam safety in the wake of deadly breach in Brazil that has cast a shadow over the entire industry.

A tailings dam owned by Brazilian miner Vale collapsed last month, killing at least 134 people with hundreds still missing and presumed dead.

It is one of the worst mining disasters in recent history and is the second failure of Brazilian of a dam in just over three years. It comes as global investors are increasingly focused on environmental, safety and governance issues.

Anglo chief executive Mark Cutifani said the London-listed miner would make more information available if that would help stakeholders feel “more comfortable” about the dams used by the industry to store waste material.

“If in some way shape or form communities and other stakeholders think more transparency and access is required we are very open to that,” he said in the company’s first comments since the dam breach on January 25th. Anglo operates a large iron ore mine in Brazil and also has nickel operations.

Last week, the Church of England and fund managers with more than £1tn in assets called for independent safety monitoring of tailings dams.

An independent verification system was previously proposed in 2016 by the International Council on Mining and Metals, the industry’s main lobby group, in the wake of the previous Brazilian dam burst, but this was not taken forward.

In spite of the scale of the disaster at the Córrego do Feijão mine, ICMM has issued just one brief statement from its chief executive Tom Butler, a former World Bank executive. This has angered some top executives who think it should have done more.

Mr Cutifani said he was aware of “conversations” at ICMM about how to articulate an “appropriate” response. “Getting that right has been a real debate,” he said, adding; “If people are saying we [the industry] have not said enough, I would take that at face value and say we should have got out there a bit quicker and been a bit clearer.”

Mr Cutifani said he had spoken with the Church of England before its announcement last week to give them a sense of the technologies used by the company in dam safety and the role of independent analysis.

He was speaking at the Investing in Africa Mining Indaba conference in Cape Town.

At the same event Simone Niven, the head of Corporate Relations at Rio Tinto, said the Anglo-Australian miner would take part in any industry-wide response to the Brazilian tragedy. Rio is a member of ICMM.

FINANCIAL TIMES

Rio Tinto ready to back industry-wide response to Brazil dam collapse

Anglo Australian miner says it will 'take part' in any review of disaster

Neil Hume

February 4, 2019

Anglo Australian miner Rio Tinto said it will back any industry-wide response to the collapse of a tailings dam in Brazil belonging to its rival Vale, the world's largest iron ore producer.

The disaster in Brumadinho has claimed at least 110 lives with hundreds still unaccounted for.

"We conduct regular monitoring audits and our dams are subject to independent third-party reviews. Even so, our technical teams are working very hard, right now, to consider what more we can and should do," said Simone Niven, Rio's head of corporate relations, in the company's first comments on the Brumadinho dam collapse of January 26. "We will take part in any industry-wide response."

Ms Niven was talking at the Mining Indaba conference in Cape Town.

Last week, the Church of England and fund managers with more than £1tn in assets called for independent safety monitoring of tailings dams.

They have called for an accessible database with annual audits of all tailings dams as well as verification that the "highest corresponding safety standards are being implemented".

After another dam in Brazil had collapsed in 2015, an independent verification system was proposed the following year by the International Council on Mining and Metals, the industry body, but this was not taken forward.

Speaking on the sidelines of the same event, Mark Bristow, the head of Barrick Gold, said the industry should be trying to get to the bottom of what happened at the mine in Brazil. “We should review best practice [across the industry],” he said.

The Telegraph

Brazil's latest mining disaster is a tragedy foretold

Jon Yeomans, ASSISTANT BUSINESS EDITOR

3 February 2019 • 5:58pm

On the afternoon of Friday Jan 25, a dam broke at an iron ore mine in Brazil, unleashing 12 million cubic metres of water and mud. The deadly wave engulfed a cafeteria and offices below, and parts of the nearby city of Brumadinho, before entering the Paraopeba river.

At the last count, the fatalities stood at 110, and 238 were still missing. Within hours, it was apparent that the dam collapse at the Córrego do Feijão mine was one of the deadliest incidents of the last 40 years.

[The scale of the Brumadinho tragedy is difficult to comprehend](#), with fresh facts still emerging. For the people of Brazil, and the global mining industry generally, it is all the more devastating because it was a disaster foretold. In many respects Brumadinho is a more deadly rerun of the [Samarco catastrophe in Mariana in 2015](#).

How could the same failures happen twice? What does Brumadinho mean for the future of Vale, the Brazilian mining giant that owns the mine and co-owns Samarco? And where does it leave an industry perennially dogged by allegations that it wreaks environmental havoc wherever it goes and displays a dangerous disregard for safety?

The dam at Brumadinho held back a pool of mine waste known as “tailings”. This is a mixture of water, sand and sludge left over from mine workings; typically non-toxic in nature, though in the earlier Samarco incident, the chemical content of the tailings was disputed. The Brumadinho tailings pool had been decommissioned and Vale said it had passed an independent inspection in September; it was also given bi-weekly checks.

Since the collapse Vale has swung into high gear, handing out emergency rations to locals, arranging shelter for displaced families, and offering a “donation” of 100,000 real (£20,000) to each of the families who have lost loved ones. The company has staged regular press conferences and posted updates online.

Conscious of criticism that after Samarco it was perceived to shirk responsibility, this time around Vale executives have been more visible. Chief executive Fabio Schvartsman described Brumadinho as “a human tragedy much larger than the tragedy of Mariana, but probably the environmental damage will be less”.

Vale has appointed an independent committee to probe the dam's collapse and Brazilian officials have already arrested three employees. The human cost is already becoming clear. The majority of the victims are likely to be Vale staff who were off duty in the canteen at the time.

The financial costs to Vale are mounting up fast. The company is the largest miner in the world in terms of volumes produced, with turnover of £34bn and net profits of £2.9bn. Its shares on the New York stock exchange have lost 19pc in the wake of the disaster, while courts have frozen company assets worth £2.3bn.

With Vale still in the dock over the Samarco disaster, this latest tragedy could halt reforms introduced by Schvartsman. Since taking charge in 2017, he has been credited with overhauling Vale's corporate governance and giving it a more commercial focus. The stock had risen by three-quarters under his tenure prior to the accident.

Ratings agencies are circling Vale, preparing to cut its creditworthiness on the basis the miner will be weakened for the foreseeable future. Moody's said last week that the accident will "have a profound effect" on the company. The mine accounts for just 2pc of its vast output of iron ore, used to make steel. But the disaster will raise "environmental, administrative, criminal and civil liabilities, on top of serious reputational risk", Moody's said.

That Brumadinho follows so closely the Samarco disaster – which occurred in the same province, just over 100 miles away – leaves Vale, and the industry more generally, with little place to hide. In November 2015 a much larger tailings dam burst at an iron mine operated by Samarco, a joint venture between Vale and FTSE 100 company BHP. The wave of water killed 19 people, destroyed two towns and polluted 400 miles of river, devastating fish stocks and farmland. The two miners are still rebuilding the area and negotiating with prosecutors over the final size of their settlement.

Paul Gait, analyst at Bernstein, says the immediate impact of Brumadinho will be calls to ban the use of upstream tailings dams altogether. "The pressure will be on regulators to demand much higher standards in these facilities and could lead to their elimination," he says. "In that case, capital costs in mining will go up. It will become harder to supply natural resources and will push up commodity prices." Last week Vale announced it would cut 10pc of its production and decommission its 10 remaining upstream tailings dams.

Many argue such a move is not before time. Adam Matthews of the Church of England Pensions Board – a fund that spearheads ethical investing across the finance sector – says: "Simply put these failures of tailing dams should not be happening. These are not black swan events." He wants an independent classification system put in place similar to one developed by the International Council on Mining and Metals in 2016 but not adopted by the industry, and is rallying investors to up the pressure on companies.

Data collated by the International Commission on Large Dams suggests "very serious failures" of tailings dams have increased every decade for the last 40 years. "That the trend of high-severity tailings failures has continued upward is indisputable," researchers say.

“Preventing those failures is an issue for independent global standards. We know how to prevent them, industry just hasn’t done it nor [been] required to do so,” says a spokesman for campaign group Earthworks.

Andrew Mackenzie, boss of BHP, said last week “the catastrophe shows we as an industry still have much to do”. But he added: “I believe we can and will make mining safe.”

Gait argues bosses have to do much more to convince the public of the importance of mining; materials like iron ore and copper are essential to construction, while cobalt and other minerals power the batteries behind smart technology.

“All people see are big holes in the ground and environmental disasters such as we’ve seen now,” Gait says. “The mining industry has not done a good job at pushing back against that narrative and explaining the critical role that it has.”

In the short term, Vale’s rivals may capitalise on its misfortune. [News that the Brazilian miner was cutting supply helped drive iron ore prices up 12pc, and shares in BHP and Rio Tinto jumped 5pc and 7pc respectively last week.](#)

Experts warn the rally may not last. The cut from Vale is a drop in the ocean of global production, and in any case, demand in China – the biggest consumer of the metal – appears to be softening, while other miners are ramping up production.

“We see an over-supplied market in the year ahead, and expect Chinese steel consumption to weaken by 5pc in 2019,” say analysts at Liberum.

Compensation claims and litigation are set to dog Vale for years to come. It already faces a class action in New York alleging it made “false and misleading statements” to the market; Vale says it will defend the claim “vigorously”.

Schvartsman told reporters he had “no reason to fear for the arrest of any Vale executive” but the investigation into the collapse is still in its very early stages. Ed Sterck of BMO says: “We expect many investors to avoid Vale for the time being.”

Meanwhile anger in Brazil continues to mount, piling pressure on its newly elected president Jair Bolsonaro to impose tougher rules on mining companies. The far-right politician, who had previously promised to deregulate industry, has convened a taskforce to look into new legislation around mine safety.

Politicians and business will struggle to build trust in a country that is shell-shocked. “The tragedy does not end when the mud stops running,” said community leaders last week.

Rodrigo Péret, a Franciscan priest who has confronted Vale over the Mariana disaster, calls the miner a “repeat offender” and attacks its “great irresponsibility” in building the refectory and offices downstream of the dam.

“We are living a moment of pain, of much sadness and indignation,” he says. “In the municipality of Brumadinho it is very difficult to find a family that does not have a relative or friend who has not died or been affected.”

CHURCH TIMES

C of E Pensions Board calls for risk assessment of tailing dams after collapse of Brazil mine

BY MADELEINE DAVIES

08 FEBRUARY 2019

Failings of such dams ‘should not be happening’, says Pensions Board’s official

THE collapse of a mine in Brazil, which may have killed more than 300 people, has prompted the Church of England’s national investment bodies (NIBs) to call for independent monitoring of the risk posed by tailings dams — some of which stretch for miles.

Failings of such dams “should not be happening”, the Pensions Board’s director of ethics and engagement, Adam Matthews, said last week. “These are not black-swan events. . . This proposal will drive a new level of accountability and transparency within the mining sector.”

The NIBs have been joined by other funds, including Swedish Public Pension funds, with combined assets of more than £1 trillion. The proposed system would be independent of companies and require annual audits of all tailings dams. Reporting would be accessible to communities, governments, civil society, and investors.

Tailings dams are enormous structures that hold the waste produced by mining. A 2001 study by the International Commission of Large Dams and the United Nations Environmental Programme found that, on average, one significant tailings dam incident occurs each year. The collapse of the Córrego do Feijão mine in Brumadinho last month may be the deadliest in Brazil’s history: 134 are dead and 199 are still missing.

On Saturday, a minister in the state of Minas Gerais told Reuters that the evidence pointed to the bursting of the mine, owing to liquefaction. This had been the cause of the collapse of the Samarco dam in 2015. Both mines are owned by Vale (jointly with BHP Billiton in the latter case).

A similar recommendation to that put forward by the NIBs was made to the the International Council on Mining and Metals after this disaster, but was not taken forward.

On Tuesday, Mr Matthews said that both Anglo-American and Rio Tinto had expressed “openness” to the new proposal and that other investors might join the call.

In 2017, when the Church Commissioners adopted a new Extractive Industries Policy, he observed that “the frequency of breaches to tailings dams where life has been lost is too often” and pledged to conduct an annual assessment on companies’ commitment to ethical conduct ([News, 10 November 2017](#)). Were these standards not met, the C of E would sell its shares, he said, “but we have high expectations that companies will be responsive”.

On Tuesday, he said that an ethical review of all companies in the sector had been completed: “That will lead to annual assessments and include recommendations about which companies we are concerned about and which we feel we should not remain invested in.” Interventions would need to be made in collaboration with other investors, using the same approach

The Church is also involved in ecumenical theological work on mining: the extractive-industries policy was presented at a half-day round table at Lambeth Palace with CEOs from five mining companies present. Work was still under way to develop the promised “common vision for the mining sector that supported the common good”, Mr Matthews said. The long-term goal was to see the mining industry “transformed to be one which is really positive within communities”.

Dialogue with companies was “often quite difficult”, Mr Matthews said. “This is very systematic change, and we are looking at engaging with it over a . . . period of a decade or so.”

The Church Commissioners have significant investments in the mining industry, including stakes in Anglo American, Antofagasta, BHP Billiton, Rio Tinto, and Glencore ([News, 24 October 2014](#)).

In 2010, the Church Commissioners and the Church of England Pensions Board sold their £3.8-million holdings in the UK-based company Vedanta Resources over “concerns about the company’s approach to relations with the communities where it operates” ([News, 10 February 2010](#)).



Brazil disaster shames miners on a day of wine and roses

As the industry recovers, its biggest players are trying to come to terms with the disasters that dog it

Rachel Millard February 10 2019, 12:01am, The Sunday Times

As hundreds of executives and politicians attending the Indaba mining summit met for drinks amid the roses and camellias of the Vergelegen wine estate near Cape Town, Mark Cutifani delivered a sombre reminder of the industry’s problems.

Against the backdrop of the Hottentots Holland mountains, the chief executive of Anglo American, which owns Vergelegen, asked for silence to remember the 360 people feared killed by a dam burst at an iron ore mine in Brazil 10 days earlier, as well as for “all other victims of mining-related incidents across our industry”.

“We should hope that as we go forward, we can create an industry that truly can say it is about zero harm,” added Cutifani.

Last month's disaster at the Corrego do Feijao mine, which is operated by Vale, will go down as one of the worst in an industry that has long been criticised for its poor safety record.

A blast at the Eynez coal mine in Turkey in 2014 killed 301 workers, while an explosion at the Sunjiawin colliery in China claimed 214 lives in 2005. The Samarco dam collapse in 2015, at another Brazilian iron ore mine run by Vale and BHP Billiton, killed 19 and caused devastating pollution. Nine people died at Anglo's operations in South Africa during 2017.

Those numbers cast a cloud over the industry even as it continues its recovery from the boom and bust of past years, when companies splurged \$900bn of shareholders' cash on dubious acquisitions and developments before the commodities crash of 2014-15.

While the sector is still a long way from its peak, miners have enjoyed a share price rally after sweetening shareholders with buybacks and reining in spending. Many are looking to replenish their pipelines with new mines and consolidation is under way in the gold sector.

Chatter among the miners, suppliers, bankers and hangers-on cutting deals in the baking heat at the summit last week focused on: the struggle to raise funds for early-stage projects; South Africa's soaring power prices; the Indian tycoon Anil Agarwal's failure to appear on the main stage; whether the cannabis industry is sucking investors' cash away from mining; and which gold company is next in line for a takeover.

The disaster 4,000 miles away in Brazil was never far from their minds, however, as many companies use "tailings" dams similar to that at Corrego do Feijao — earth-filled embankments built using waste from the mining process — and pressure for improved safety is growing.

One industry figure suggested the latest tragedy would prove a turning point, although scepticism remains as to what will change and whether companies will be more transparent about their operations.

Mark Bristow, boss of one of the world's leading miners, Barrick Gold, said he was "paranoid about our tailings facilities".

He described the Vale situation as "a disaster of enormous proportions". An industry review of best practice is needed, he said, adding: "One of the criticisms I have — and we have changed in Barrick — is this concept that if you get a third party to sign off on something, it absolves you as an executive.

"The way I work is, you are responsible. You have the responsibility to get all the experts you want to help you make the decision, but the responsibility never leaves you as an executive team. So, while we comply and sign up for all these safety programmes, we don't use them to abdicate our responsibility."

In response to the disaster in Brazil, fund managers controlling assets worth more than £1 trillion called for independent monitoring of dams. The Church of England backed the call after selling its Vale shares days after the disaster.

One investment banker warned delegates that mining companies may become "uninvestable" if they fail to improve their image. As well as better monitoring, changes could be ordered to the design of the thousands of waste dams in existence to make them more secure.

Last week Brazil announced plans to ban the "upstream" dam type that burst at Corrego do Feijao because they are susceptible to cracks.

Chris Griffith, chief executive of Anglo American Platinum, said: "The mining industry as a whole will be looked at and told, 'We can't trust you to keep us safe.'

So the industry will have to come up with a response that satisfies society that we are not going to have another disaster like this.

“All companies are looking at it like that: to say, ‘What else can we do, what else do we need to do?’ ”

Simone Niven, Rio Tinto’s head of corporate relations, has backed a co-ordinated industry response. Luctor Roode, chief operating officer of Petra Diamonds, said: “It puts us in a position where we need to defend ourselves.

“We have got various facilities that we manage professionally but . . . we need to make sure these incidents don’t happen any more.”

Vale’s challenges escalated on Friday when thousands of people were told to abandon the area because of fears about the condition of a dam at another of its iron-ore mines, about 90 miles from Corrego do Feijao. “This shames us all,” said one industry worker on the sidelines of Indaba.

Deadly dam burst prompts investors to review mining stocks

Brazilian disaster 'a wake-up call' for those who specialise in ESG assets

Jennifer Thompson and Chris Flood February 10, 2019

The collapse of a dam at an iron-ore mine in Brazil just over two weeks ago has prompted investors to review holdings in the business's owner and triggered questions over how to manage risks and improve practices.

The burst at the Córrego do Feijão mine in Brumadinho on January 25 is one of South America's worst disasters: at least 150 people died and nearly 200 are still missing.

The dam was operated by Vale, the world's largest iron-ore producer, and it held back tailings — streams of waste from mines. There are several thousand similar dams worldwide.

Mining activities are frequently controversial and the sector poses a challenge for investors who are under pressure to understand and manage environmental, social and governance risks.

As well as worker safety, areas of concern include the possible use of child labour, the effect on ecosystems and whether the land has been acquired legally.

“Mining is certainly an industry that has generally higher risks in terms of environmental and social practices,” says Mark Eckstein, a director of environmental and social responsibility at CDC, a development finance group that focuses on Africa and southern Asia.

What is especially disturbing for Vale investors is that it is the group’s second failed dam in less than four years. Nineteen people died in November 2015 when the Mariana dam gave way in the state of Minas Gerais, Brazil. It was also holding iron-ore tailings.

That operation was owned by Samarco, which is a joint venture between Vale and BHP, the Anglo-Australian miner.

“I suspect the shock of Vale having two dam failings in [little more than] three years has sent absolute shockwaves through the investor community,” says Adam Matthews, director of ethics and engagement at the Church of England Pensions Board.

The Mariana incident prompted “a real reflection of what being in this industry means”, he says.

It was the fact that the two incidents occurred so closely in time that prompted the Church of England to divest from Vale within days of Feijão. The church had held stakes worth less than £10m, which were part of its £2.5bn pension fund and its £8bn historical endowment.

Meanwhile, Nordea Wealth Management has “quarantined” its Vale holdings. The effect is that the Nordic bank’s portfolio managers can no longer buy Vale shares.

Sasja Beslik, head of sustainable finance, says Nordea had conducted “many intense dialogues” about safety with Vale since 2015.

“Brazil is suffering from endemic corruption, which makes allocating responsibility for this latest tragedy more difficult,” says Mr Beslik. “We need to understand what has happened technically for the dam to fail and that will require a site visit. There are big questions over whether Vale will be able to qualify for future investment from Nordea.”

Mr Matthews believes the groundswell of interest in responsible investing is the catalyst for more questions on safety.

The Church of England is part of a group of investors, including APG, Robeco and BMO Global Asset Management, that have called for more information on tailings dams. They are pushing for a global system to help monitor safety risks and to require annual audits of all tailings dams, with the results made available to the public.

NZ Super Fund, the NZ\$37.4bn (£19.5bn) sovereign wealth fund, and another supporter of the initiative, has a small exposure to Vale in its international portfolio, which is primarily passive.

“It’s a real wake-up call,” says Anne-Maree O’Connor, head of responsible investment. She says investors are prodding miners to improve their operations but, “I think shareholders could do more to push for independent standards”.

Mr Beslik says Nordea plans to do thorough research on the risk posed by tailings dams. “Changing weather patterns and global warming pose physical and financial risks for all mining companies. Today it is Vale but it could be another mining company tomorrow.

“This is a sector-wide issue, which leads to much bigger questions than just Vale. It is unclear if enough investors have been thinking about this.”

Ignoring such concern poses a serious financial risk to investments. After the Feijão incident analysts from Moody's Investors Service said that although the mine accounted for less than 2 per cent of Vale's 390m-tonne annual output of iron ore, "we expect it to raise environmental, administrative, criminal and civil liabilities . . . and serious reputational risk".

The rating agency has placed Vale's debt on review for a downgrade as a result of potential liabilities. It says it will have "a profound effect" on the company. Vale's shares have fallen by more than a quarter since the dam burst.

BlackRock, which is also an investor in Vale, says it "actively engages with companies on a range of topics including environmental, social and governance matters".

It adds: "Our direct dialogue with management teams gives us visibility over the governance and risk factors that may have a material impact on companies' long-term financial performance."

Brynn O'Brien, executive director at the Australasian Centre for Corporate Responsibility, says investors need to communicate better with miners.

"Investors should move to transparency on what questions they ask," she says. "It's very difficult to get a sense of how effective that engagement is."

Mr Eckstein at CDC adds, however, that investors are not those who run the company.

"Ultimately a company's performance is the responsibility of a company and its board," he says. "Any of these big incidents clearly has an impact on investor sentiment and expectation. It should encourage them to ask smarter questions."

We must work together to prevent a new dam disaster

Adam Matthews

10 February 2019 • 6:18pm

The collapse of a dam owned by giant mining firm Vale in Brumadinho, Brazil, has led to a devastating loss of lives and livelihoods, while causing what may turn out to be extensive environmental damage.

Something very different now needs to happen in response to this disaster that ensures workers and communities are not exposed to such risks. That is why last week the Church of England along with investors in the mining sector made a clear and urgent call for a public system that holds mining companies to higher standards for tailings dam safety.

While some companies have in the last few days indicated support for an industry wide approach to improving tailings it is telling, and deeply unfortunate, that in the wake of the Brumadinho disaster, headlines from some mining industry press days after the disaster considered how it might “harm risk appetite” in the mining industry globally. There may well be changes to risk appetite – from investors, regulators, insurers, boards and management – but the most pertinent question is not whether the risk appetite is rising or falling. It is whether this appetite is well calibrated to the actual risks run by those operating tailings dams, and by those living and working in the shadow of dams.

Tailings dams are designed permanently to hold mine waste, which may be liquid, solid, or slurry, toxic or non-toxic. They are among the largest engineered structures on earth, with an estimated 3,500 active tailings impoundments worldwide.

Unfortunately, it appears that Brumadinho is only the most recent of an emerging trend of serious failures: Mount Polley (Canada) in 2014 and Samarco (Brazil) in 2015 were two of the most well known examples in the last five years. At Samarco 19 lives were lost whilst at Mount Polley extensive environmental damage was caused. The UN Environment Programme has cited research showing that the number of serious failures has increased

over the last three decades (though the overall number of failures has decreased). “Serious” in this context means a failure that causes the loss of life, and/or the release of more than 100,000 cubic metres of semi-solid tailings discharge.

Global statistics on the failure of tailings dams are relatively hard to come by, since there is no publicly accessible inventory of tailings dams. Failures take place in jurisdictions with wide differences in regulatory practice, and in companies with different operations, engineering standards and reporting requirements. We suggest that in order to promote the wide use of best available technology and policies, just such a global and publicly accessible (and understandable) resource ought to be scoped and created.

There are also, as you might expect, very many different kinds of dams, with different engineering and risk profiles, which makes the prospect of standardised and comparable assessment difficult. This is perhaps why the Golder Associates report on “Tailings Dam Management”, which was commissioned by ICMM after the Samarco dam failure, focuses on the need for a global classification system that assesses the consequences of failure, rather than the likelihood of failure. It is important to know whether a dam is very remote or perched above a village, whether the environmental impact of failure would be contained, or whether it would poison an entire catchment area. With that information in hand, we would have more confidence that those involved in the management, oversight and regulation of tailings facilities are able to put safety first.

It is understandable that the scale of the tragedy in Brazil has seen protests against the mining industry as a whole. Yet society demands the resources from mining, and indeed many mined minerals – such as lithium and cobalt – are essential to both the low carbon transition and modern living. There is good practice in industry, and a wealth of engineering knowledge and experience, but as a sector it is not clear that lessons from the past have been learnt. UNEP’s 2017 report on tailings dam facilities calls for action to “Facilitate international cooperation on mining regulation and the safe storage of mine tailings through a knowledge hub”. Also to “Create and fund an accessible public-interest, global database of mine sites, tailings storage facilities and research”, along with a call for increased independent monitoring, and greater transparency.

This is why the Church of England Pensions Board, Church Commissioners for England, and a coalition of investors representing over \$1 trillion of assets are jointly calling for a global independent classification system to monitor and make public the safety risk of mining tailing dams.

We propose that the new system should require annual audits of all tailings dams, as well as verification that corresponding safety standards are being implemented, and that all reporting should be accessible to communities, governments, civil society, and investors via a public database. Only this will drive a new level of accountability within the sector.

This proposal now requires the urgent attention of all stakeholders. The scale of the catastrophe in Brazil is an urgent call to action and we must all work together to drive a new level of accountability and transparency within the mining sector.

Adam Matthews is director of ethics and engagement at the Church of England Pensions Board

FINANCIAL TIMES

Global miners count the cost of their failings

Environmental, social and governance metrics steer investors away from sector making news for all the wrong reasons

Henry Sanderson and Neil Hume

February 15, 2019

Fatal environmental disasters, corruption and bribery allegations, polluting fossil fuel production. The global miners' roll call of shame is increasingly making the industry uninvestable at a time when demand for socially-responsible investments is booming.

The big diversified miners such as Brazil's Vale, Glencore and BHP are now difficult to own for a swath of institutional investors who must weigh environmental, social and governance metrics in their investment decisions.

With a quarter of global funds under management run with these ESG considerations, according to consultancy McKinsey, and many money managers signatories to the UN Principles of Responsible Investment, the whole sector risks becoming an investment wilderness.

"The mining industry is capital-intensive and carbon intensive and has all sorts of environmental externalities, which have not been top of investors' minds historically, but now are now becoming top of investors' minds," said Nick Stansbury, a fund manager at Legal and General.

Last month's tailings dam disaster at Vale's Córrego do Feijão mine — which is likely to have killed more than 300 people — has further exposed the perils of investing in an industry that has some of the lowest ESG scores.

All of this will make it harder to attract capital the industry needs to keep supplying the raw materials that touch every facet of modern life from mobile phones to automobiles.

“You will see a lowering of the cost of capital for those companies that can proactively address the issues that ESG investors want them to look at,” said Lindsay Patrick, head of sustainable finance at RBC Capital Markets. “You will see a bifurcation of the market.”

After the dam collapse, Vale was immediately downgraded by Sustainalytics, an influential rating agency focused on ESG metrics, and removed from a leading sustainability index in Brazil. More than \$13bn has been wiped off Vale’s market value since the disaster.

According to research by Morgan Stanley, 80 per cent of Vale’s top-20 investors and 64 per cent of its top-50 are signatories to the UN Principles of Responsible Investment, which means they must incorporate ESG factors into their investment processes. The company’s biggest foreign shareholder is BlackRock, which wants to be a leader in sustainable investing.

“I don’t care how cheap it gets, Vale is now uninvestable,” said another Vale investor, who declined to be named. “The fact there were office buildings and a staff canteen in the vicinity of the dam, is just unforgivable. It’s as if nothing was learned from the previous disaster.”

Following a similar dam burst in 2015, a classification system was proposed in a report commissioned by the International Council on Mining and Metals (ICMM) but not taken forward everywhere.

That has prompted the Church of England and fund managers with more than £1tn in assets to call for independent safety monitoring of tailings dams so they can remain invested in the sector.

“Dam disasters should not be happening,” said Adam Matthews, director of ethics and engagement for the Church of England Pensions Board. “An independent classification system will ensure that communities, workers and investors know the safety standards of tailings dams are in place and if they are being applied.”

ICCM, which has 27 members including Vale, said it was considering the idea among other options.

In another example of how big funds are responding to this trend, London-based Sarasin & Partners, which manages more than \$12bn, sold its holding of about 16m shares in Switzerland-based miner and trader Glencore last year.

This was because of concerns about Glencore’s activities in the Democratic Republic of Congo, where it is under investigation by the US Department of Justice, and its relationship with Dan Gertler, a controversial Israeli businessman sanctioned by US authorities for “opaque and corrupt” mining deals.

“A key question for shareholders is why Glencore has . . . chosen not to take opportunities to distance itself sufficiently from Mr Gertler since its initial public offering,” said Alex Hunter, a partner at Sarasin.

“Without a compelling answer to this, we have decided to exit our clients’ position.”

Glencore has been a particular focus for investors over the past year and not only because of its activities in the DRC or Venezuela and Nigeria, which are also the subject of the DoJ probe.

The company is the largest producer of thermal coal, which is used in power stations to produce electricity. It has continued to buy up coal mines unwanted by its rivals to fuel a new fleet of coal plants in Asia, which the International Energy Agency say are threatening to derail global emissions targets.

Glencore declined to comment on the share sale by Sarasin but said it supported the development of green technology and recognised global climate change science. It added that through its membership of ICMM it would also work with peers to fully understand the events that led to the dam burst in Brazil.

Vale and Glencore are not alone in having issues that raise concerns for fund managers and investors.

All of the world’s largest mining companies, including Rio Tinto, BHP Billiton and Anglo American, have some of the worst scores on sustainability ratings compiled by fund managers such as Legal and General as well as external consultants.

Anglo American and Glencore both produce coal as does BHP, which also has a large oil and gas unit. BHP has yet to settle a case brought by Brazilian prosecutors following the 2015 dam collapse that it jointly owned with Vale. Nineteen people were killed in that disaster.

And while Rio has sold its last remaining coal mine, the Anglo-Australian company is under investigation by US and UK regulators over corruption and fraud allegations in Africa. It has also agreed to build a coal-fired power station to provide electricity for its giant copper mine in Mongolia.

However, investors face a conundrum, as these big diversified miners also produce the copper, cobalt, nickel and lithium that will be needed as the world’s shifts to cleaner forms of energy and transportation. They are also generating prodigious amounts of cash, which is being returned to shareholders, and are tackling the challenge of reducing water usage and the storage of waste material.

“The mining industry needs to be clearer about its social purpose and show how it is minimising the environmental and safety impacts of its activities,” said L&G’s Mr Stansbury.

“That’s an imperative that they may not be addressing fast enough, and hard enough, which they really need to. If they don’t, it is going to become really hard for them to justify their position in a portfolio,” he added.

Some miners are aware of this threat. Jean-Sébastien Jacques, Rio Tinto's chief executive, last year described the industry as one of the least trusted, drawing parallels with the movie *Avatar*, which featured a company destructively mining a rare substance on a distant planet.

"It is a simple fact that mining is essential to human progress and has been for the last century and more. So, the world needs us and it is about time we stopped punching below our weight. We need to be better at telling our story.

"But for many, the industry still has a lot of work to do to gain the trust of investors and the public.

"This is a key sector with real challenges that needs considerable leadership," said the CoE's Mr Matthews, who believes it is possible to stay invested in miners.

"But there is also good practice, and there's an opportunity for responsible investors to work with companies to make that the norm.



Mining disaster at Brumadinho in Brazil puts focus on safety of dams around world

Emily Gosden, Energy Editor February 18 2019, 12:01am, The Times

beneath the remains of the collapsed Córrego do Feijão dam in Brumadinho, Brazil, the search for the dead continues.

More than 166 people are confirmed to have perished when the dam owned by Vale, the world's biggest iron ore miner, collapsed three weeks ago, unleashing a torrent of millions of cubic metres of mining waste. Almost 200 people, many of them employees of the Brazilian mining giant, are still missing, presumed buried beneath the thick red mud.

Around the world in the offices of the big global miners, executives preparing to report their financial results over the next few days are bracing themselves for questions from investors about the safety of their own mining waste.

The high death toll of the Brumadinho disaster marks it out as unusual, but catastrophic collapses of dams holding back mining waste — known as “tailings” — are not. Three years ago 19 people died when a tailings dam collapsed at the Samarco iron ore mine, also in Brazil’s Minas Gerais province and co-owned by Vale and BHP Billiton. A United Nations Environment Programme report in late 2017 documented six other such failures significant enough, in terms of environmental damage if not in loss of life, to have made international news since 2014, including in Canada, the United States and China.

Tailings are an inevitable part of mining. To produce a tonne of, say, copper, many dozens of tonnes of rock must be mined and processed. Usually the finely crushed leftover rock, along with waste water from processing, ends up discarded in open air pools behind a dam wall, which is built up in height as more tailings are added. There are different methods of construction, but both of those that collapsed in Brazil are the “upstream” model, the cheapest and generally considered the most risky. “The dam facility itself is essentially built on tailings that have been piled up behind the dam,” Paul Gait, a leading mining analyst at Bernstein Research, said.

Collapses are often thought to be caused by “liquefaction”, where fine particles of solid materials act like a liquid. Waterlogged tailings and seismic activity exacerbate the risk: in earthquake-prone countries such as Chile, the design is banned.

The difficulty for an investor sat in London is how to assess the risks. For a start, there are a lot of these tailings dams, although there is little reliable information on exactly how many. One commonly cited analysis from the turn of the millennium estimated 3,500 such facilities globally, about half of them built using the “upstream” design used in Samarco and Brumadinho. A more recent study suggested up to 18,000.

Then, as Mr Gait noted, “these are very technically complicated pieces of engineering and each one is individual. You are taking it on trust when the company says that engineering studies validate the use of particular tailings facilities.

“No one outside the industry, without technical competence and access all the information, is going to be able to say, ‘I believe company X and not company Y.’ How could you?”

In the wake of Samarco, most miners set out plans to step up checks on their tailings dams, while the International Council on Mining and Metals, comprising 27 of the largest companies, published a tailings governance framework that included committing its members to “internal and external reviews and assurance” of their facilities.

In the days after the Brumadinho disaster, Vale, a member of the ICMM, pointed to an external audit by TUV SUD, a German company that had certified the dam as stable in September. It also said that its own regular inspections had not found any cause for alarm.

Yet leaked details of the TUV SUD report since then have shown that it did raise concerns about drainage and monitoring, while an internal Vale document obtained by Reuters last week suggested that the dam had been assessed to have had a heightened risk of failure, albeit only a one-in-5,000 chance. Vale insists that there was nothing to suggest “an imminent risk of collapse”.

The Church of England and a group of leading investors with \$1 trillion under management have called for a new independent and fully transparent system of safety checks that would be made public.

For Mr Gait, Brumadinho calls into question not only whether industry processes are being followed correctly and are sufficiently transparent, but more fundamentally whether the industry's comprehension of the risks is good enough. Alarmingly, he suggested that it may be simply that "we don't understand how these facilities work as well as we thought we did". As such, he believed it was "highly likely" that new upstream tailings dams would be outlawed and that there would be moves to phase out existing ones. Vale had already decided after Samarco to decommission all 19 of its upstream dams, including Brumadinho; it is now expediting the process.

Whether the industry and regulatory response will go far enough or fast enough to prevent another disaster is doubtful. World Mine Tailings Failures, an American not-for-profit organisation that has created a database of tailings dam failures back to 1915, predicts 17 more catastrophic tailings failures worldwide from 2020 to 2029 unless there are radical changes in law, industry practices and technology.

Urging action in its 2017 report, the UN Environment Programme warned: "Failure to implement change, coupled with the reality of declining ore grades and consequent increasing waste volumes, will inevitably lead to more catastrophic failures with more deaths, human suffering and environmental destruction."

After Samarco, it said: "If it takes a big event to make change . . . now is the time." After an even bigger tragedy at Brumadinho, change is clearly now long overdue.

Upstream numbers

When *The Times* asked the four biggest London-listed miners for figures on their upstream tailings dams after the Brumadinho collapse, BHP Billiton, Rio Tinto and Glencore were unable or chose not to confirm exact numbers. It is understood, however, that BHP and Rio intend fuller disclosures in the coming days.

Anglo American said that 32 of its 56 tailings facilities were of an upstream design, all of which were in South Africa or Botswana, apart from one in Australia.

A spokesman said: “These are generally low in height, in flat topography, non-seismic areas with dry climates and low rates of deposit into the facilities, which allows the tailings to dry and gain . . . strength.” Anglo had “full confidence in the integrity” of the sites.

FINANCIAL TIMES

BHP embraces idea of independent tailings dam monitor after deadly breach

Neil Hume

February 19, 2019

BHP Group, the world’s biggest natural resources company, said it would welcome an independent body to oversee the integrity, operation and construction of tailings dams following a deadly breach in Brazil that is likely to have killed at least 300 people.

Speaking after the release of interim results, BHP chief executive Andrew Mackenzie said the industry had to “redouble” its efforts to make sure there was no repeat of last month’s disaster at Vale’s Córrego do Feijão iron ore mine.

“Event like this simply cannot happen,” he said. “We will be meeting with a number of global bodies this month to expedite this work and response.”

“At BHP we would welcome a common, international and independent body to oversee the integrity, construction and the operation of all dams and we absolutely support the call for increase transparency in tailings dams disclosure.

”Last month, the Church of England and fund managers with more than £1tn in assets called for independent safety monitoring of tailings dams, which are used to store waste material from mines.

In the wake of a previous dam breach in 2015, also in Brazil, a report commissioned by the International Council on Metals and Mining recommended a consequence-based classification system for tailings dams but it was not widely adopted, according to analysts.

Mr Mackenzie said it was “too early speculate” on what the dam breach would mean for the future of Samarco, BHP’s iron ore joint venture with Brazil’s Vale.

The mine has been out of operation since a dam collapse in 2015 killed 19 people.

Two deadly dam breaches in less than four years is likely to have a big impact on the mining industry, according to analysts, who reckon some investors could now shun the sector if there is not a comprehensive response.

“This disaster will now enable every opponent of the industry to question the validity of every technical report that the miners are able to produce,” said Paul Gait, analyst at Bernstein Research.

“I think it is hard to underestimate the impact that the twin Samarco-Córrego do Feijão disaster will have on broader civil society. A response by the industry that is predicated upon the hope that people will either believe that what has occurred is isolated to Vale, or that it will simply be forgotten over time, simply will not work.

“Separately, BHP also provided more details of its tailings dams, which total 115 including non-operated joint ventures. Of that total, 20 are active and 47 have been constructed using the upstream method — the same design used at Córrego do Feijão iron ore mine.

On Monday, Brazil banned new upstream mining dams and ordered the decommissioning of all such facilities by 2021.



BHP calls for regulations to prevent dam disasters

Regulator needed to avert future collapses, mining giant warns

[Emily Gosden](#), Energy Editor

February 20 2019, 12:01am, The Times

The boss of the world’s biggest miner has admitted that the industry does not fully understand why its waste dams keep collapsing and needs to urgently invest in research to prevent more disasters.

BHP joined calls for an “international, independent body” to oversee the thousands of dams holding mining waste worldwide, after the catastrophic collapse in Brazil last month believed to have killed more than 300 people.

Andrew Mackenzie, its chief executive, said that the industry needed to “acknowledge the deficiencies in the scientific and technical understanding” and to “redouble our efforts to make sure that these things can’t happen again”.

The collapse of the Córrego do Feijão dam in Brumadinho, owned by Vale, the Brazilian iron ore giant, unleashed millions of tonnes of crushed rock and water known as “tailings” that buried all in its path. The death toll stands at 169, with a further 141 people still missing.

Three years ago, 19 people died when a similar tailings dam collapsed at Samarco, another Brazilian mine co-owned by Vale and BHP. Researchers have catalogued more than a dozen other serious collapses since 2007.

Tailings dams are used to store waste from mines worldwide, with estimates suggesting that as many as 18,000 exist. Those that collapsed in Brazil used the “upstream” construction method now generally considered the most risky.

BHP yesterday reported net profits of \$3.7 billion in the six months to December. It produces commodities including iron ore, copper and coal. It said that it had 115 tailings dams worldwide, of which 47 were “upstream”, adding that 34 of these were no longer in “active” use.

After Brumadinho, the Church of England and other leading investors with £1 trillion under management called for independent regulation of tailings dams, saying that the industry could no longer be trusted to regulate itself. The Church welcomed Mr Mackenzie’s support for independent oversight and said that investors with a further £2 trillion under management, including Schrodgers and Royal London, supported its call.

Mr Mackenzie, 62, said that BHP had made hundreds of improvements to its dams after Samarco and had not identified any “serious deficiencies”.

However, he admitted that the company had been unable to identify the exact cause of the Samarco collapse. “We didn’t learn a lot from the Samarco failure . . . the inquiry was reasonably inconclusive as to what was the cause. It suggested several reasons,” he said.

Asked how BHP assessed the risks of collapse, he said: “We have a risk management process, but that’s only as good as the science and given what has happened we need to upgrade the science before we start . . . being overly precise on what the risk factors are.”

Mr Mackenzie said BHP did not plan to decommission its active upstream dams, all of which were on low-rainfall plains in Australia, but it was exploring other ways of dealing with mining waste. “It may well make sense to completely avoid tailings in the future,” he said.

He said that the industry needed to “have a nuclear level of safety now” and must get “some of the best physicists, the best engineers involved”. He added: “With hindsight, we can suggest maybe we should have invested a bit more in some of these things as humankind.”

Mining needs 'nuclear level' safety for tailings dams, BHP says

Jon Yeomans, Assistant Business Editor 19 February 2019 • 2:19pm

The mining industry needs a “nuclear level of safety” at tailings dams around the world after the deadly collapse in Brazil last month, the boss of BHP has said.

Andrew Mackenzie admitted the industry “needs to do more” and backed calls for a “credible, independent, international review body” to inspect dam standards and operating procedures.

He called on miners to boost investment in research after admitting that the industry’s understanding of dam collapses around the world fell short of what was necessary.

“These dams do fail with a certain regularity, which I think is unacceptable. We have to acknowledge the deficiencies in the science - it has to have a nuclear level of safety now. We have to get the best physicists and engineers involved,” Mr Mackenzie said.

More than 300 people are thought to have died in Brazil in January after a tailings dam owned by Vale collapsed, unleashing a wave of mud and wastewater on mine buildings below.

The dams are used around the world to store waste from mine operations but until now there has been no internationally recognised body to police their standards or even to record the number in existence.

In 2015 a dam collapsed at Samarco, another Brazilian mine co-owned by BHP and Vale, killing 19 people.

Mr Mackenzie defended his company’s response in the intervening three years but admitted that the final report into the disaster had been unable to pinpoint one single cause. “We didn’t learn a lot from the Samarco failure ... it was reasonably inconclusive as to what was the cause. It suggested several reasons for it.”

He conceded that oversight of dams would now need to fall to an independent body: “We absolutely get that to regain some of that lost trust... we have to be open to more transparent inquiry into the quality of how we manage our tailings dams.”

The mining industry is under intense pressure after the Brumadinho catastrophe, considered the worst environmental disaster in Brazil’s history. Industry leaders are due to meet next week to discuss a response to the disaster and Mr Mackenzie said a timetable would be needed for their proposals.

BHP revealed on Tuesday it had 47 upstream tailings dams worldwide, 13 of them active, and all in Australia. The disclosure was welcomed by a group of ethical investment funds with a £3 trillion in assets under management that is lobbying for action on tailings dams.

“Communities, workers, banks and investors need the assurance that best practice will become the new minimum requirement across the mining sector,” said Adam Matthews of the Church of England Pensions Board.

The funds will meet in London in April to discuss a new safety system for the industry.

For the half year to December, BHP reported a slight rise in pre-tax profit to \$6.8bn on revenues broadly flat at \$20.7bn.

However underlying profits fell short of City expectations as the Anglo-Australian miner - the world's biggest by revenues - struggled with production stoppages at some mines.

It also suffered the embarrassment of a runaway train in Western Australia, which had to be deliberately derailed by railway operators and caused five days of delays. About \$1bn of productivity savings it expected to make this year have now evaporated.

BHP, which produces iron ore, copper and oil, sweetened the pill with a higher than expected interim dividend, continuing the trend of the mining majors paying back shareholders after years in which payouts almost dried up.

The FTSE 100 company has returned \$13.2bn to investors in the past six months after selling a huge portfolio of US shale fields to BP.

Shares slipped 1pc to £17.82 in afternoon trading in London, valuing the company at £97bn.

CoE welcomes BHP response over Brazilian dam collapse

By Theo Andrew 19th February 2019

The Church of England Pensions Board has welcomed the decision from BHP to call for an independent body to improve the safety and operation of all dams, following the tragic failing of the Vale dam in Brumadinho, Brazil.

The statement from BHP chief executive, Andrew Mackenzie, follows pressure from the Church of England and Sweden's Public Pension Funds, along with other funds totalling £3trn of assets under management, which called for a "global independent classification system" to monitor the risk of mining company tailing dams.

The statement, which said the industry must "redouble its efforts" to ensure there was no repeat of disaster, which killed at least 166 people, with a further 147 still missing.

Church of England director of ethics and engagement, Adam Matthews, said: "I welcome the statement from BHP's chief executive and recognition that events such as in Brazil cannot happen. Communities, workers, banks and investors need the assurance that best practice will become the new minimum requirement across the mining sector.

"Independence and transparency will be key to re-establishing trust and as investors we look forward to playing our part in working with global experts and industry in advancing the call we have made."

According to the Church of England, investors will be attending a meeting on 4 April, chaired by the Church, which will advance the call for global dam safety.

Swedish Ethics Council secretary general, John Howchin, added: "I am very pleased to see BHP take leadership on this issue. We now need that leadership across the rest of the sector."

Last month, the Local Authority Pension Fund Forum (LAPPF) [wrote to Vale and its joint venture partner BHP Billiton](#) over concerns it had about the collapse, adding that it will be holding meetings in order to review its response.

Time for the mining industry to get a grip on its tailings failings

[JON YEOMANS](#) ASSISTANT BUSINESS EDITOR

It is almost a month since the collapse of a tailings dam in Brazil killed an estimated 300 people, but only now is the mining industry starting to find its voice.

The dam, at the Córrego do Feijão iron ore mine in Brumadinho, held back some 12 million cubic metres of water and mud, and the resulting avalanche swamped a workers' cafeteria and offices.

Video of the disaster shows what looks like a hillside collapsing, engulfing everything below in clouds of red dust and sludge in a matter of moments. The mine is owned by Brazilian giant Vale, which - alongside BHP - co-owned Samarco, where another dam collapsed in 2015, killing 19 people.

Vale is now on the hook for multibillion dollar fines and has been forced to suspend production at other sites. It insists the dam was checked and re-checked for safety.

Samarco was thought to be a defining moment for the mining industry - its equivalent of the Deepwater Horizon oil rig explosion - but Brumadinho has shown dam failures are a recurring nightmare.

There are thought to be thousands of such dams around the globe, holding waste from mining operations. Incredibly, no one has kept a tally of them. Researchers David Chambers and Lindsay Bowker have tracked tailings dam collapses over

the years and their studies suggest the number of severe failures has increased every decade for the past 40 years.

Critics have long called for independent global standards to be implemented. But companies use different methods and yardsticks to assess the safety of their dams, supplemented by third-party inspections.

The industry response to the latest disaster has been slow, bordering on the complacent.

After Brumadinho, the mining majors should have formed a task force and come up with a firm timeline of how and when they would respond to global concerns about the use of these dams. Their excuse may be that they don't want to pre-judge the investigation, and that they want a credible, comprehensive answer to the problem.

But this is the third time a disaster of this type has struck in just five years, if you count 2014's non-fatal Mount Polley accident in Canada.

Trade body the International Council on Mining and Metals, backed by all the major companies, took nearly a week to issue a three-paragraph statement decrying the "human and environmental tragedy" of Brumadinho, adding that it was "considering a range of actions". We are told bosses are meeting in Miami next week to start kicking about ideas.

This week has, at last, seen positive steps from the industry giants. BHP, Rio Tinto, Glencore and Anglo American have all disclosed for the first time how many tailings dams they have and how many are of the more risky "upstream" variety.

They have each made pledges towards greater transparency and some have backed calls from the likes of the Church of England Pensions Board for an independent body to police dams and their operation. Anglo boss Mark Cutifani said the disaster had "done a lot of damage" to the industry's reputation and that any solution would need "collaboration".

Better late than never, perhaps, but the industry must now move with far greater alacrity and purpose if it is to stem widespread public anger and hostility.

Some very smart minds work in mining. And the industry is fanatical about safety: this is evident not just in the updates that preface every annual report, but in the procedures every visitor to a mine has to go through. That these things can be true at the same time that dam failures continue to happen with alarming regularity is a contradiction the industry must grapple urgently.

Most illuminating this week were comments by BHP boss Andrew Mackenzie that the science behind tailings dams is “deficient” and that far more research needs to be done to understand why they keep failing. He followed this with the extraordinary admission that BHP did not learn much from the Samarco failure. Mackenzie wasn't being flippant: an engineer by training, he was trying to articulate in logical, if rather stark, terms the limits of industry knowledge.

In Samarco's case, an independent report found a number of factors that contributed to the “liquefaction” of the dam walls, but could not single out the most important. Long term, the industry will need to explore other ways of storing waste that could involve extracting water earlier in the process, or putting material in tanks.

This may be easier with some commodities, such as coal, than others, like iron ore. And of course, such methods will be more expensive to adopt. Nor will they solve at a stroke the problem of the many dams that remain in existence, decommissioned or otherwise.

Nonetheless, the industry must act. It argues - rightly - that consumers would be a little stuck without the metals and minerals it digs up. You can't have an iPhone, or a car, or even a house, without the fruits of mining. But it is difficult for miners to make such a case when lives continue to be lost in such terrible circumstances.

An independent body would face challenges, not least in designing a dam classification system that can be used worldwide, and finding enough engineers with the expertise to uphold it. It would need to develop a comprehensive database of such structures and enforce compliance on smaller companies that may not feel the same pressure as the big listed corporates.

Yet such a body would bring greater reassurance to investors trying to judge risk in their portfolio and to the people living in the shadow of such dams. There can be no time for delay.

A global industry response to iron ore dams? Count out Cleveland-Cliffs

New York — US-based iron miner Cleveland-Cliffs CEO Lourenco Goncalves' message is: Count me out - in response to BHP CEO Andrew Mackenzie's advocacy of a global independent public classification system for tailings dams - an issue Mackenzie has said will be discussed at Monday's International Council for Mining and Metals Meeting, an annual gathering of CEOs.

"He [Mackenzie] is outsourcing responsibility," Goncalves told S&P Global Platts. "That might be workable in Australia, but never here in the US. Here the company is responsible and the buck stops with the CEO."

Earlier this week, after discussing BHP's half-year results, Mackenzie called for "some urgency" and a global industry response that would take dams to "a nuclear level of safety."

Mackenzie's comments followed the January 31 statement issued jointly by the Church of England Pensions Board, Church Commissioners for England, Sweden's Public Pension Funds and funds now representing over GBP 3 trillion (\$3.8 trillion) in assets under management, calling for a global independent public classification system and "corresponding independent and public audits that monitor the safety risk of mining company tailings dams."

"It's surprising that the biggest mining company in the world needs to get directions from the Church of England," Goncalves said.

Others do see Mackenzie's rallying cry as noble and needed in the wake of Vale's Brazil Feijao mine dam burst late last month, which left more than 165 people dead and 140 missing. In 2015, BHP was directly affected by a similar disaster at the Samarco-operated Fundao dam, also in Brazil and a Vale-BHP joint venture, which killed 19 and caused extensive environmental damage.

Samarco has yet to restart. "He [Mackenzie] should take care of his own business -- BHP still has a lot to do with Samarco," Goncalves added.

"The restart of Samarco's operations will occur only if it is safe, economically viable and has the support of the community. Resuming operations requires the granting of licenses by state and federal authorities and community hearings, among other requirements," BHP said in a January statement.

"I'm totally against the idea [of independent and public audits]," Goncalves said, noting that each individual mining CEO needs to do what's right to protect their communities, their workers and shareholders.

"Each region is different. Each company needs to analyze the individual conditions and we must not outsource this responsibility," Goncalves emphasized. "The CEOs need to have their own plan, and develop the absolute best practice. We have that here at Cleveland-Cliffs and we are more than happy to share our expertise."

BHP chose not to respond, when contacted by Platts about Goncalves' remarks.

When asked if he'd attend that the ICMM meeting Monday in Miami, Goncalves said: "Cleveland-Cliffs is not a member and never will be. I have better things to do."

The Telegraph

Business

Miners commit to international action on tailings dams

Jon Yeomans, ASSISTANT BUSINESS EDITOR 26 February 2019 • 6:16pm

The world's biggest mining companies have agreed to establish an independent panel to set global standards on tailings dams, one month after the devastating collapse of a structure in Brazil killed up to 300 people.

The International Council of Mining and Metals, representing 27 mining giants, said the industry would task a panel of experts with drawing up international standards on dams as well as devising a system for "independent, credible reviews of tailings facilities".

Tom Butler, chief executive of the London-based ICMM, said the moves were a "step change" for the industry. They follow talks among ICMM members in Miami to produce a

detailed industry response. ICMM members will adopt the new standards, which will be based on industry best practices, and encourage non-members to follow suit.

[The industry has been on the back foot since the fatal accident in Brumadinho last month when a dam at a mine owned by Vale gave way](#), submerging a cafeteria and offices in an avalanche of mud.

Tailings dams typically hold waste from mining operations in the form of mud and water. There are thought to be more than 5,000 worldwide but precise numbers are not tracked and until now companies have used their own procedures and standards to check the safety of their dams, usually in conjunction with third party inspectors.

Academic research suggests severe tailings dam accidents have increased every decade over the last 40 years.

The Brumadinho disaster follows just over three years after a similar dam collapse at a mine in Brazil co-owned by Vale and BHP.

[Last week BHP boss Andrew Mackenzie admitted these structures failed with "unacceptable" regularity and the science behind them was "deficient"](#). BHP and Glencore were among the major companies last week to back calls for an independent body to police tailings dams ahead of the ICMM meeting.

The ICMM said companies would review emergency planning at mine sites and collaborate on a new database to share knowledge across the industry. Its initial review into tailings dams standards will be complete by the end of the year, it added.

The move follows calls from investor groups led by the Church of England Pensions Board to tackle the risks posed by tailings dams and to adopt international standards.

Adam Matthews, director of ethics and engagement at the Church of England pensions board, said it was a "welcome step in the right direction".

"We are convening international investors in London on Monday who have supported the call for an international independent tailings safety system," he said.