

***Mine waste disasters in Brazil and Canada are also rooted in  
government failures – can this be fixed and how?***

***Dr. Judith Marshall***

***Associate, Centre for Research on Latin America and the Caribbean (CERLAC)***

***York University, Toronto, Canada***

***[judithmarshall9@outlook.com](mailto:judithmarshall9@outlook.com)***

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	<b>Mt. Polley Dam Williams Lake, BC, Canada</b>	<b>Fundao Dam Mariana/Rio Doce, Brazil</b>	<b>Corrego de Feijao Dam Brumadinho, Brazil</b>
<b>Mining Corporation</b>	Imperial Metals	Samarco (Vale, BHP joint ownership)	Vale SA
<b>Date</b>	August 4, 2014	November 5, 2015	January 25, 2019
<b>Ecosystems compromised</b>	Fraser River watershed	Rio Doce water basin, 650 km Rio Doce river polluted	Paraopeba water basin (Sao Francisco river)
<b>Tailings volume spilled</b>	25 million cubic metres	60 million cubic metres	12 million cubic metres
<b>Type of dam</b>	Modified centre Line (hybrid towards upstream)	Upstream	Upstream
<b>Security certificate</b>		Certified	Certified 4 months earlier by German consulting company Tuv Sud
<b>Fatalities</b>	0	19	252
<b>Fatalities profile</b>	-	Samarco employees, sub-contractors, community residents	Engineers, doctors, senior managers, sub-contractors, community residents, tourists
<b>“Affected” communities profile</b>	Indigenous community, small business owners, community residents	Indigenous community, 540 families directly affected plus hundreds with damages to homes, farms, livestock and fishing along 650 km of now polluted Rio Doce	About 175 families with property directly affected, PTSD in first responders and relatives of those buried in toxic muck
<b>Government reactions</b>	Investigations but no fines or punishment	Investigations, lawsuits Creation of “Renova”	Nov 5: Parliamentary Inquiry proposes indictment of Vale, TuvSud and 22 people for Environmental Crimes and corruption.

Sources: Polignano 2019; Marshall 2018

Three catastrophic tailings dam collapses have occurred in the Americas during past 4 ½ years, each rooted in significant government failures. What lessons can they teach us?

The first was at Mt. Polley, British Columbia here in Canada at a copper/gold mine owned by a mid-sized Canadian company, Imperial Metals. No lives were lost but the surrounding communities were strongly affected, including two Indigenous communities. There was also severe damage to the ecosystem in the Fraser River watershed, an important spawning ground for salmon.

The second collapse occurred 14 months later in an iron mine in Mariana, Brazil, creating a toxic tsunami that surged for ten days along the Rio Doce river system, travelling 650 km before it reached the Atlantic Ocean. Giant mining corporations Vale and BHP were the co-owners. The two communities closest to the mine were literally buried in muck, with nineteen fatalities. Today, affected communities all along the now polluted Rio Doce, including a substantial Indigenous community of Krenak people struggle today to rebuild their lives and get recognition for their compensation claims.

The third catastrophic dam collapse happened on January 25, this year in another Vale mine in Brumadinho. It has a staggering death toll of 252 people, mainly Vale employees including engineers, doctors and mine managers. Company offices and cafeteria were located directly in the path of the flow of toxic muck.

In both Brazil and Canada, the failures of governments in the events leading up to and following the dam collapses were monumental. The failures are of all kinds - failure to protect Indigenous land, warnings unheeded, whistleblowers left without protection, reduced regulations and irregular inspections, failure to provide warnings or emergency procedures, failure to fine, failure to punish.

In the comparative study I wrote about tailings dam collapses in Mt. Polley and Mariana two years ago, I remember posing the question of what do we do as citizens when our governments fail to protect us, whether as workers or as affected communities and fail to protect the environment. In my visit to Brazil two weeks ago, Dr. Polignano, head of the community health department of the Federal university of Minas Gerais posed the same question in another way, saying government absence in response to the Mariana and Brumadinho catastrophes meant that society had to assume the role of the state.

In a talk with mining researchers and activists at the Fed, U. of Rio de Janeiro, I suggested that to tackle these failures, we first had to situate ourselves historically in the neoliberal world order. The single most important characteristic of the neoliberalism that has swept the globe over the past 50 years, encompassing state formations of every variety -capitalist, socialist and post-socialist - is the transformation in the relationship between corporations and states. Governments have internalized the neoliberal dictum that human well-being is best advanced by the maximization of entrepreneurial freedom. Enter ever more powerful transnational corporations. The role of government is reduced to creation of the institutional framework appropriate to ensure private property rights, individual liberty, unencumbered markets and free trade.

But this neoliberal world order is not just a simple question of less state and more market. Beyond creating the institutional framework desired by ever more powerful private corporations, the state plays a very important discursive role. The neoliberal state espouses and normalizes a new public discourse around deeper commodification and marketization of society, the virtues of globalization, the perils of nationalism.

In thinking about the changed relationship between states and corporations, we need to understand the state not just as elected parliaments. A multiplicity of institutions make up the state in a robust democracy, including the judiciary, the media, universities, think tanks, regulators and religious bodies. They all need to function autonomously, with clear objectives, identities, boundaries and resources if democracy is to flourish. These institutions are contested spaces, subject to being captured by powerful corporate interests. Recent books by Kevin Taft and Donald Gutstein who argue persuasively that in Canada, big oil has succeeded in capturing both provincial and federal governments, implanting the oil industry agenda through use of think tanks, lobbyists and revolving doors between government and industry. The oil industry has succeeded in creating a “deep state” within the existing state, thereby fundamentally undermining democracy and blocking action on global warming.

As we look at whether government failings can be fixed vis-à-vis catastrophic tailings dam collapses, should we be looking at government bodies as honest brokers or look at them through the “deep state” lens as already captured by the corporate agenda?

In the aftermath of Mt. Polley, Mariana and Brumadinho, many government failings have been identified and many national and global processes have been launched to tackle questions of tailings dam governance to ensure safety for workers, for affected communities and for the environment.

By chance the Mt. Polley tailings dam collapse coincided with an audit prompted by recognition that with declining commodity prices and mining companies struggling to survive, protection of the environment could be in jeopardy. A spotlight was shone on Mt. Polley. In the BC jurisdiction where Mt. Polley occurred, the auditors found “almost every one of our expectation for a robust compliance and enforcement program with the Ministry of Energy and Mines and the Ministry of the Environment were not met.”

The Auditor identified a fundamental conflict of interest when the same government body is responsible for both promoting and regulating mining. The overarching recommendation of the audit was creation of “an integrated and independent compliance and enforcement unit for mining activities “Given that the Ministry of Energy and Mines (MEM) is at risk of regulatory capture ..., our expectation is that this new unit would not reside within the ministry.”

The Liberal government in power at the time, adopted most of the report but refused to act on the central recommendation of an independent. The NDP/Green Party government that ousted the Liberals has never mentioned it. Presumably the situation of “regulatory capture” identified by the audit continues to prevail. The government failures include not just inaction on recommendations like those from the audit but new failures that add insult to injury. The Mt. Polley disaster had dumped 25 million cubic meters of toxic waste in Quesnel lake, B.C.’s deepest fjord lake, source of drinking water for residents of Likely, vital component of an eco-system for salmon spawning. Almost 3 years after the dam

collapse, the BC government quietly issued a permit to Imperial metals to drain its mine waste into Quesnel Lake permanently. So corporate impunity for Imperial Metals with no charges or fines, BC taxpayers on the hook for \$40 million in clean-up costs the once critical NDP/Greens in power now authorizing ongoing pollution of Quesnel Lake.

Turning to Brazil, the recently created National Mining Agency in Brazil had established an Integrated System for Security Management of Dams and Mining (SIGBM). In a 194 page report, the National Mining Agency documented how Vale kept double records, one to send to the government mining agency and another for internal use. Various “anomalies” in the functioning of Brumadinho in the internal records were not sent to the National Mining Agency, some of which could have prompted elevation of the risk factor, further inspections and possibly saving 252 lives.

The news story also reported that the final report of the Parliamentary Commission of Inquiry on Brumadinho had been unanimously approved. The vote was witnessed by families of the victims of the dam collapse; with photos of the deceased on the table of each parliamentarian. Vale and Tuv Sud, the German consultancy firm and 22 people were indicted based on 5 articles in the Law Against Environmental Crimes and, in the case of the ex-president of Vale, Fabio Schvartsman, the Anti-Corruption law. The report has been submitted to 25 government bodies including the Federal Police.

1. Integrated, independent compliance and enforcement unit
2. Financial security deposit – mine closure - add catastrophic events

#### References:

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