

MINING DAM'S REGULATION IN BRAZIL, 2019: WHY MORE DISASTERS CAN BE EXPECTED (*)

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The Fundão dam, located in Mariana, Minas Gerais, is owned by the mining company Samarco Mineração S.A. On Nov. 5, 2015, it collapsed as a result of a series of construction and maintenance failures (Serra, 2018). This was the largest disaster involving tailings dams in the world in terms of the volume of material released (about 45 million cubic meters) and the impacted extension (of 600 kilometers) (Bowker, 2015). In response to the disaster, the Legislative Assembly of Minas Gerais passed Law 21.972/2016 the following year, which loosened environmental control in the state (Costa et al. 2016). In addition, the federal government signed an agreement with Samarco and its shareholders (Vale SA and BHP Billiton) that transferred to them the responsibility for identifying social and environmental impacts, as well as for the recovery of affected areas, mitigation of the impacts and remediation of dams (União et. al., 2016).

About three years later, on Jan. 25, 2019, Dam I, property of Vale S.A. in Brumadinho, MG, collapsed as well. This new disaster caused the death of about 270 people - one of the five most deadly dam disasters in the world (Bowker 2019).

The occurrence of these two disasters led to great social mobilization and the demand for government measures to ensure the safety of the population and the environment. As a result, in the early months of 2019, new state and federal bills concerning the subject were proposed. However, after the initial commotion, some of these processes were put to a halt (at the risk of not being implemented), while others suffered setbacks.

The bill 23.291/2019 was approved by the legislature in the state of Minas Gerais in February 2019. This bill was based on a Popular Initiative Bill (PL 3.695 / 2016), the result of a campaign called "Mar de Lama Nunca Mais" (Oceans of Mud Never Again) organized by the Minas Gerais's State Attorney's Office in partnership with non-governmental organizations (NGOs).

The new laws meant improvements in important issues such as the prohibition of the licensing of upstream elevation dams (the construction technique used in Fundão and Dam I), the impossibility of simplified or partial licensing of new dams, the prohibition of the construction of dams that have communities in "Zonas de Autossalvamento" [ZAS] (regions in which flooding would occur in less than 30 minutes in the event of a collapse) and a financial bond from mining companies for environmental recovery in case of disasters or for the closure of dams. Although the bill passed and was sanctioned in February 2019, until the end of August 2019, the executive decree that is needed for the bill's implementation has not yet been issued, making it impossible to put into practice many of its articles.

	Measures taken	Status
State of Minas Gerais	Bill 23.291/2019 approved, establishing stricter rules on tailing dams	Not yet implemented
Federal	Bill 2.789/2019	Not put to a vote
	Resolution ANM 04/2019, establishing stricter rules on tailing dams	Approved but later replaced with Resolution ANM 13/2013, which relaxed many of the stricter provisions from Resolution ANM 04/2019

Table 1. Changes in mining dam's regulation in Brazil post the Mariana and Brumadinho disasters



Similarly, an intense movement was noted in the early months of 2019 in the federal legislature. The House of Representatives created a commission tasked with the elaboration of regulations to some extent inspired by the example of Minas Gerais. Bills proposed changed the requirements for environmental licensing of mining projects, created emergency action funds for disasters caused by mining ventures (PL 2.789/2019), modified the National Dam Safety Policy (PL 2.791/2019), among others. These projects were submitted as a matter of urgency in May 2019, but were stalled with no prospect of completion in the near future.

From the federal executive's point of view, it is worth mentioning the initiative of the Brazilian Mining Enforcement and Safety Administration known as "Agência Nacional de Mineração" (ANM), which approved Resolution ANM 04/2019 as early as February 2019. Among other changes, this Resolution prohibited the construction upstream elevation dams, set a deadline for the decommissioning of existing dams using this technique and prohibited the building of new dams in the ZAS. This Resolution went through the process of public consultation, during which 281 suggestions for changes were submitted (70% by mining companies, industry associations or consulting companies). Of the 33 proposals that were fully accepted, only five made suggestions for stricter rules. The Resolution was reedited as Resolution ANM 13/2019 in August 2019. Among the main changes, the deadline for the removal of large tailings dams was postponed in four years.

Thus, a little more than six months after Dam I broke, there is a generalized paralysis of institutional initiatives to increase the safety of dams in Brazil. None of the actions taken (Table 1) have had an impact on critical aspects of existing insecurity such as the right of mining companies to choose audit companies (self-monitoring), the existence of abandoned dams, or the existence of communities located in ZAS.

The absence of structural changes in the regulation of mining tailings dams suggests a gloomy prospect for Brazil in this area. If the correlation of forces at the federal and state levels is not altered and the necessary measures are not adopted, the country will continue to be exposed to a significant risk of further collapses in the near future¹.

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Notes

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⁽¹⁾ As it turns out, on October 1st 2019, Dam TB01 collapsed in the state of Mato Grosso, spilling 580 thousand cubic meters of tailings from a gold mine. Whether because TB01 was a comparatively small dam (Fundão contained 60 million cubic meters of tailings), or because it is already naturalizing such disasters, the Brazilian media did not pay much attention to this event. However, two aspects of TB01's collapse are noteworthy. First, ANM rated TB01 a low-risk dam, the same classification it gave to Dam I and Fundão. This suggests flaws in the risk rating process. Second, contrary to Dam I and Fundão, TB01 was a downstream dam, which weakens ANM's assumption that the banning of upstream dams will suffice to avoid new disasters.

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