

## Let's not wait for another deadly dam failure: UNECE guidelines can improve safety

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Another tragic industrial accident hit Brazil on 25 January 2019 when the Brumadinho dam failed at an iron ore mine in the South East of the country, killing over 65 persons with roughly 300 still missing. This comes just over 3 years since the Bento Rodrigues dam collapse in the country.

Brazil's regional development minister, Gustavo Canuto, said that nearly 4,000 dams in Brazil were classified as having "high damage potential" or being at high risk. What can be done to prevent future accidents and avoid the loss of lives, the pollution of drinking water and the spread of harmful mining waste, known as "tailings"?



The answer lies in a tried and tested formula: putting safety first and investing in prevention. Such tragic accidents could have been avoided by taking adequate and effective safety measures, and by applying UNECE's safety standards, notably the [Safety Guidelines and Good Practices for Tailings Management Facilities \(TMFs\)](#). These Guidelines, developed by the [Joint Expert Group on Water and Industrial Accidents](#) under UNECE's [Industrial Accidents Convention](#) and [Water Convention](#), provide authorities and operators of tailings management facilities (TMFs) with recommendations for practical measures to limit accidents and the severity of their consequences. A related [methodology on tailings management safety](#) developed under the leadership of Germany assists countries in the practical application of the Guidelines. It is comprised of a tailings hazard index which helps to provide an overview of the risks in a country, a checklist to identify deficiencies and a measure catalogues to overcome the gaps identified.

Aiming to inspire countries around the world to strengthen industrial safety, address their own hotspots and prevent accidental water pollution, the UNECE Safety Guidelines and related checklist are available for use by any country, industry operator or stakeholder wishing to apply them.

In December 2018, countries adopted the Industrial Accident Convention's long-term strategy until 2030, setting out [a vision to significantly increase industrial safety](#) and reduce the risk of technological disasters by ensuring its full implementation, and to serve as an example for accident prevention and preparedness within and beyond the UNECE region.

The Industrial Accidents Convention will continue to address serious hotspots linked with mining operations, working to address TMF safety through numerous projects under its current workplan 2019-2020. Thanks to support from Germany and Switzerland, assistance activities are currently being carried out in the Caucasus and Central Asia, to map TMFs, identify safety hazards, and take measures to reduce the risk of any failure.

The Water Convention continues to foster the prevention, control and reduction of water pollution in countries worldwide as a key dimension of international water cooperation. Both Conventions, through their [Joint Expert Group on Water and Industrial Accidents](#), support countries in applying UNECE's safety standards to prevent accidents and mitigate the consequences of accidental water pollution.

Full implementation of the Industrial Accidents and Water Conventions requires addressing persisting risks linked with the mining sector, and tailings management facilities holding mining waste which if improperly managed, can cause severe accidents, with transboundary environmental impacts, and cost lives.

UNECE stands ready to share its expertise and lessons learned through decades of improving industrial safety. Let us not wait for the next headlines on a tragic – and avoidable – accident.

### **Note to editors**

Since the early 1990s UNECE has been supporting cooperation for the prevention of, preparedness for and response to industrial accidents, especially those with transboundary effects, in its region. The 1992 Convention on the Transboundary Effects of Industrial Accidents (Industrial Accidents Convention) helps protect human beings and the environment against such accidents by preventing them as far as possible, reducing their frequency and severity and mitigating their effects.

UNECE is currently implementing two projects on strengthen the safety of mining/tailings safety in Central Asia under the Industrial Accidents Convention: one in [Kazakhstan \(2018-2019\)](#) and another one in Tajikistan (2019-2020). The projects, implemented with financial support from the Swiss Federal Office for the Environment, aim at strengthening the safety of mining operations, in particular tailings management facilities (TMFs), in the beneficiary countries and beyond in Central Asia. Key activities comprise the preparation of a hazard map, carrying out an onsite training and exchanging experience and lessons learned during a subregional workshop. In addition, a [project on improving tailings safety in Armenia and Georgia \(2017-2019\)](#) is being implemented under the Convention's workplan in the Caucasus, financed and implemented by Germany/Federal Environment Agency. The UNECE Joint Expert Group provides advice and assistance to countries in the implementation of the above projects.

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