

The real cost of gold

1. Do you think the benefits we get from gold - its uses in jewelry, dentistry, electronics, and other uses - are worth the true cost of gold?

Any benefit that is functional and in favor of humanity if it would be worthwhile, yes and only yes, it is obtained in a responsible way and thinking about the possible consequences that can happen at the moment of carrying out the extractions. Benefits such as dentistry and technology are truly useful, while jewelry is not.

2. Gold mined vs. solid waste generated. Analyze why the relationship is like that.

In mining, products or waste are obtained at the time of extraction. Like the soil they dig up and chemicals they use to clean stones to get the material they want, they are usually with impurities.

3. What is the chemical compound most used for gold processing and what are the environmental consequences of its use?

Cyanide is highly toxic and if released into the environment, it can have a significant impact on the environment and pose a threat to public health. Cyanide spillage has caused serious fish mortality, contamination of drinking water resources and destruction of agricultural land.

4. Mention 2 cases of disasters caused by gold mining activity, involving damage to communities, cities and even countries. Analyze the consequences in the short, medium and long term.

Mount Polley-Caribou Mine in British Columbia, Canada. On the morning of August 4, 2014, one of the largest mining disasters in the history of the North Country occurred when the retention barrage at the open-pit copper-gold mine owned by Imperials Metal Corporation of Canada collapsed. As a result, 25,000,000 cubic meters of toxic waste was dumped into Pauley and Quesnel lakes, Hazeltine Creek, and the Caribou River.

Buenavista del Cobre-Arizpe Mine, Sonora, Mexico. Just two days after the Canadian disaster, the Buenavista del Cobre mine, owned by the Mexican capital company Grupo Mexico but operated by its U.S. subsidiary Southern Copper Corporation, spilled 40,000 cubic meters of toxic waste into the Sonora and Bacanuchi rivers. It was officially recognized that 380 people suffered immediate health effects because they were using that water at the time of the spill, on August 6, 2014, which has since contaminated the riverbed.

5. Analyze what measures should be taken in the gold mining activity, to minimize environmental impacts and make the activity economically sustainable.

The main problem is the chemical waste used to remove the impurities, so the treatment of it must be very careful. They must be stored and then use some special protocol for each type of waste obtained.

References

Cyanide Use in Gold Mining. (2018, 5 febrero). Earthworks.

<https://www.earthworks.org/issues/cyanide/#:%7E:text=Cyanide%20is%20highly%20toxic%2C%20and,supplies%20and%20harmed%20agricultural%20lands>.

Bland, A. (2014, 14 febrero). *The Environmental Disaster That is the Gold Industry*. Smithsonian Magazine. Preserving the environment through responsible mining.

(2017, 1 noviembre). Solidaridad Network.

<https://www.solidaridadnetwork.org/solidaridad-stories/preserving-the-environment-through-responsible-mining>

Preserving the environment through responsible mining. (2017, 1 noviembre).

Solidaridad Network.

<https://www.solidaridadnetwork.org/solidaridad-stories/preserving-the-environment-through-responsible-mining>