



BHP IN SOUTH AMERICA OVERVIEW

BHP-Billiton is the world's largest mining company. The dual-listed company was formed in 2001 with the merger of Australian mining company BHP and Anglo-Dutch Billiton plc.

Controversy has dogged many of BHP's interests in South America, sometimes for decades. Environmental issues and human rights abuses have been ongoing concerns globally, none more so than the collapse of the tailings dam at BHP's Samarco mine in 2015, which was the world's worst tailings dam disaster, and Brazil's worst environmental disaster, with 19 people killed and 670 km of the Rio Doce River contaminated with millions of cubic metres of tailings waste.

A LEGACY OF RUIN - A SHORT SAMPLE

SAMARCO, BRAZIL

On the 5th of November 2015, the Fundao iron tailings dam collapsed at the Samarco iron ore mine upstream of the village of Bento Rodrigues. 19 people were killed, 50 people injured, and 90% of Bento Rodrigues's homes were destroyed. The flood of mud directly impacted on 2000 people. 670 km of the Rio Doce River was devastated from tens of millions of cubic metres of tailings. The amount of tailings and extent of the pollution was the most ever recorded in a mining disaster in the world.



CERRO MATOSO, COLOMBIA

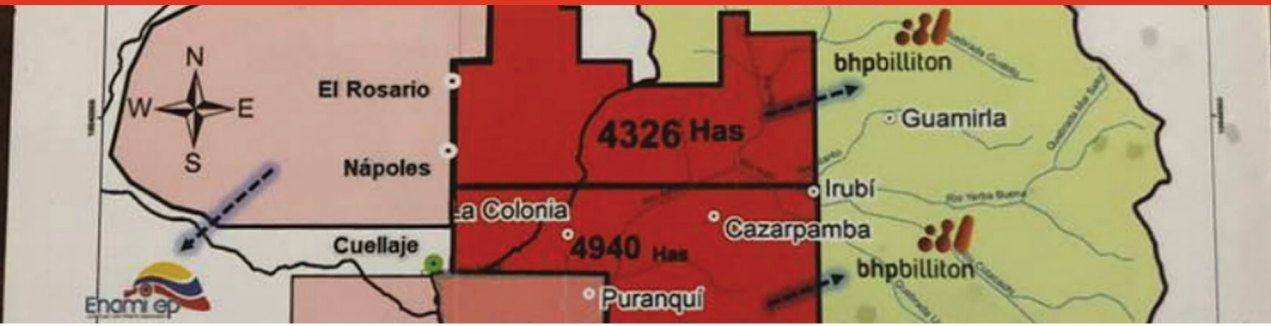
Pollution from the mine over the past 40 years has severely impacted the local Afro-Colombian and Indigenous population. The first public health impact was published in 2015 and stated that people living 15km away commonly had nickel in blood and urine samples, skin lesions and upper tract respiratory problems. In 2018, the Constitutional Court of Colombia ordered the mine to damages to local communities, a decision which was overturned a few months later. Mining waste has included heavy metals, with rain water collected near the mine including mercury, copper, lead, zinc and cadmium.

CERREJÓN, COLOMBIA

The Cerrejón coalmine is located in a semi-arid area, 40% of which is desert. It uses 17 million litres of water per day, yet an average resident in nearby Alta Guajira now only has access to 0.7 litres of poor-quality water daily, a tiny fraction of what is needed. Wayuu villagers were forced to give up land and were not consulted about the construction of the mine. By 2016, 15 communities had been relocated into badly built settlements rife with social, economic and environmental issues, including the forced removal of 420 families in 2001 by police and private security forces with riot gear and tear gas, who bulldozed houses, barns, corrals, and the local school.



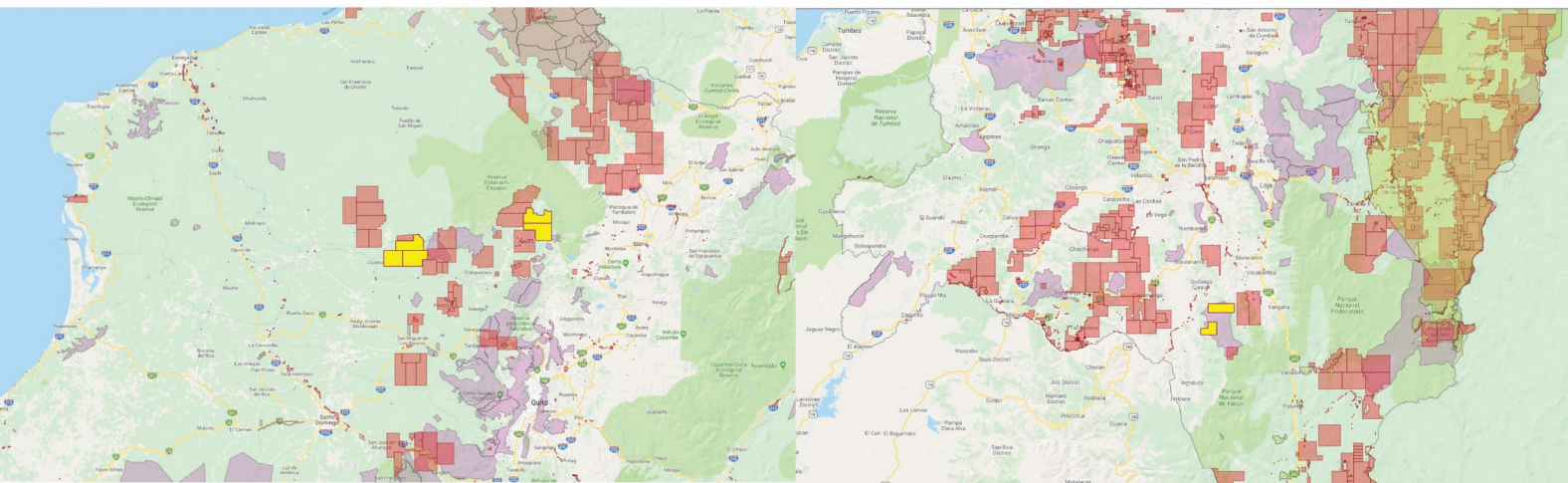
ECUADOR - EXPLORATION HOTSPOT



With copper demand expected to grow, and BHP's Escondida copper mine in Chile reaching the end of its productive value, BHP is now looking to Ecuador. The Ecuadorian government softened its position on mining in 2017 in the wake of a US\$6.5 billion debt to China, sending mining companies around the world into a flurry to gain a piece of the holdings on offer.

BHP Billiton has been active in Ecuador since at least 1999 when it had options to explore properties in the Rio Zamora valley in south-east Ecuador. In 2002, BHP transferred a number of properties to the Canadian company, Corriente in two joint-venture agreements, including Mirador. BHP retained a 2% net smelter interest.

BHP Billiton operates in Ecuador under the subsidiary "Cerro Quebrado S.A.", opening an office in Ecuador in 2017 after the purchase of several concessions along the North-Andean Copper Belt. BHP strengthened its strategic position in October 2018 with a US\$36 million investment in SolGold, bringing its stake in the company to 11.2%. BHP and Newcrest Mining are now both major shareholders in company SolGold, with Newcrest holding a 14.5% stake. With SolGold's Cascabel mine mooted to be as big as Escondida in Chile, and rumours suggesting Newcrest and BHP are in a tussle to take over SolGold, BHP's involvement in Ecuador is likely to be significant.



Left: North of Ecuador. Right: BHP concessions in south Ecuador. BHP concessions in yellow. Mauve areas on map indicate Protected Forests. Note that concessions overlap Protected Forests.

The forests and vegetation of Intag where BHP has its concessions are within two of the most important biological hotspots in the world: the Tropical Andes, and the access points to the Choco/Darien/Western Ecuador (Myers et al., 2000). Here, the concessions border on several biologically significant reserves, including the Cotacachi Cayapas Reserve and the Los Cedros Reserve which is also under threat of mining by ENAMI and Cornerstone Capital Resources.

In the case of the primary tropical and subtropical cloud forests, very little remains in the northwest of Ecuador, and they constitute habitats for forest animals in danger of extinction. The BHP Billiton concessions also include ten vital water sources that supply local communities.

As of November 2018, BHP are undertaking initial exploratory activities in five areas located in the province of Imbabura. Two of these, in the area of Intag, are only five kilometres from the Cotacachi-Cayapas Ecological Reserve and are on top of two native cloud forest reserves. Their concessions in Intag cover 9,266 hectares, in the parishes of Cuellaje, Apuela and Plaza Gutiérrez. 4,326 hectares correspond to the concession Santa Teresa 1, and the other 4,940 to the concession Santa Teresa 2.

