



A Mineral-Intensive "Green" Energy Transition: Deforestation and Injustice in the Global South



Brumadinho, Minas Gerais, Brazil. Ph: Ibama

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A Mineral-Intensive "Green" Energy Transition: Deforestation and Injustice in the Global South

Our Viewpoint

A Green Transition or an Expansion of Extraction?



Glencore's Mutanda mine, DRC. Ph: Reuters

Much has been said about the so-called “energy transition” towards zero-carbon emissions. Mounting pressure for addressing the very serious climate impacts of burning petroleum, coal and natural gas has led to more than 70 cities and countless companies and corporate networks pledging “carbon neutrality.” But what does this mean?

In a nutshell, this means that, on the one hand, the carbon dioxide emissions accounted for these cities or companies will be supposedly compensated with “offset” projects elsewhere (for example, through large-scale tree plantation projects). The WRM has written extensively on [this false solution and the many threats it represents for the climate, local environments and forest dependant peoples and populations](#). On the other hand, zero-carbon emissions pledges also include that many sectors of the economy, such as transportation for people or housing energy, will turn more and more to so-called renewable energies, sometimes also called “green” or “clean” energies.

This bulletin aims to reflect on the threats involved in this transition towards “green” or “clean” energies. First of all, this transition is *not* based on significantly reducing the massive energy

production and consumption by a minority of actors concentrated in urban and industrialized centres. On the contrary. The “clean energy” promise, to make it appealing for consumers and corporate funders, is based on simply replacing fossil fuel-based energy with renewable energy. The dirty secret of this transition, though, is the exponential expansion of mining in the global South that would be needed to satisfy the massive demand for “green” energy.

Copper, cobalt, nickel and lithium, for example, are needed for electric vehicles, energy storage and cabling. Between 2017 and 2050, the World Bank predicts a growth of more than 900% in global demand of lithium, while the demand for cobalt is anticipated to increase nearly six-fold over the same period. (1) According to Bernstein’s European Mining and Metals research team, in order to meet governments’ commitments under the Paris Agreement, between 11 and 72 million tonnes of copper production would be needed in addition to meeting current industrial demand. A higher demand implies that copper production would have to grow by between 3.1% and 5.8% a year. (2) Prices of these minerals are expected to soar. Higher prices means a significant uplift in the share prices of mining companies such as Ivanhoe, First Quantum, Glencore, Antofagasta and Anglo American. One article in this bulletin points to the role of the European Union in driving the growth in mineral demand as a result of “green” energy.

Even the World Bank recognizes that “The clean energy transition will be significantly mineral intensive.” (3) Unsurprisingly, since the Bank is an important funder of large-scale mining, its strategy is to create a “Climate-Smart Mining Facility” with a focus on making mining operations in forests, “Forest-Smart.” An article in this bulletin explains this strategy and alerts on how the World Bank is planning to offset any pollution, deforestation or biodiversity loss that incurs during this “mining intensive” transition.

Swiss multinational Glencore, for example, among the top three copper, cobalt, zinc and seaborne thermal coal producers, and in the top five of the major nickel producers, is planning to reduce emissions in its mining operations by using electric vehicles, renewable energy and digital technology. This in turn creates more demand for the minerals the company is already extracting. (4) More than 25 per cent of Glencore’s mining activities are located in forest areas. (5) Isn’t then this “transition” the opposite of what a “clean” economy promises to achieve?

Moreover, a number of the world’s biggest companies extracting the key minerals used in battery manufacturing have been linked to a long chain of human rights abuses. Glencore faces 11 allegations of breaches of human rights laws, related to its mining of cobalt, most of which is located in the Democratic Republic of Congo (DRC). 32 allegations relate to its extraction of copper in countries such as Chile, Peru and Zambia. (6) Copper is key to the construction of wind turbines.

Mining impacts are devastating, especially on women. The devastation is not limited to the mining site. The impacts of this industry expand much beyond that. Bulletin articles address four aspects related to the mining industry that often receive less attention but have equally violent and destructive impacts:

- Biodiversity offsets. An article from Madagascar explains how the Australian mining company Base Resources is using a biodiversity offset project to keep its business-as-usual

practise while cleaning up its image. In reality, the offset project, too, has severe consequences, particularly for women.

- Mine tailings dams. An article from Brazil recalls the disasters that are occurring (and are likely to increase) due to ruptured tailings dams in the Amazon. The more mining extraction, the more tailings dams that can fail.

- Compensation money. An article from India highlights how the money that the Indian Government collects from mining companies for “compensation” is being used to harass, persecute and evict people from their homes which have been turned into protected areas.

- Deep-sea mining. An article from a network in the Pacific Islands alerts on how the discourses of a Blue Economy hide a race to obtain minerals needed for the so-called “green” and renewable energy that are in the deep sea. Coastal territories and villages less than 30 km away from some of these sites are already having early impacts.

Meanwhile, fossil fuels (oil, gas and coal) are still being vastly pursued and extracted - from Indonesia and Nigeria to Ecuador, to name just a few. Many industries in the massive production chain are and will still demand high amounts of fossil fuel-based energy. Among them: the aviation, shipping, fertilizers or agro-industries. Another bulletin article from Ecuador reminds us of the amount of power that fossil fuel companies hold and how they expand their destructive operations.

We hope this bulletin is an eye-opener to the hidden impacts that are present at each site of corporate extraction. Contrasting this devastation are the stories of resistance and hope. Let's not be fooled by the “green” waves of oppression and stand in solidarity with those defending their territories, defending life.

(1) NS Energy, Host of top energy firms extracting battery minerals linked to human right abuses, September 2019, <https://www.nsenergybusiness.com/news/energy-firms-battery-minerals-human-rights-abuses/>

(2) Mining MX, Glencore's green rebrand a complex brew for governments, society and shareholders, July 2019, <https://www.miningmx.com/news/markets/37604-glencore-green-rebrand-a-complex-brew-for-governments-society-and-shareholders/>

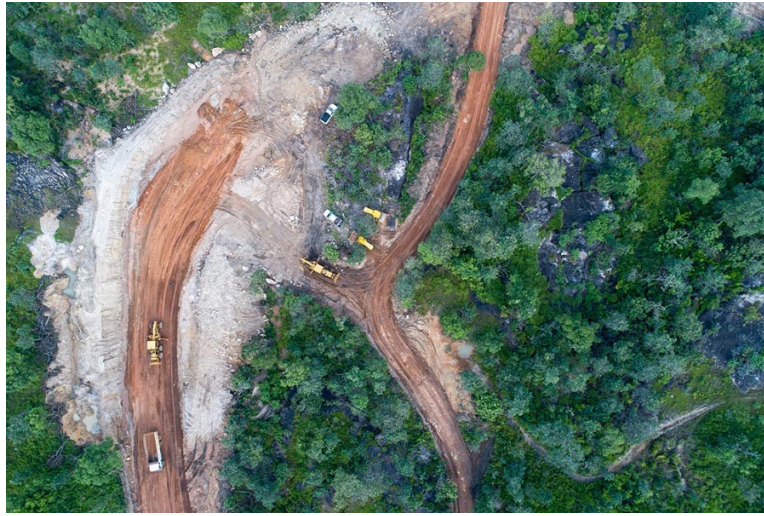
(3) World Bank, Climate-Smart Mining: Minerals for Climate Action, <https://www.worldbank.org/en/topic/extractiveindustries/brief/climate-smart-mining-minerals-for-climate-action>

(4) Glencore, Bank of America Merrill Lynch Smart Mine Conference 2019. Leveraging ideas to unlock value, 2019, <https://www.glencore.com/dam/jcr:6a0e48c2-9e03-4f31-89e1-916228717df5/20190626-GLEN-BAML-Smart-Mine-conference.pdf>

(5) World Bank, Making Mining Forest-Smart, https://www.profor.info/sites/profor.info/files/Forest_Smart_Mining_Executive_Summary-fv_0.pdf

(6) See note (1) and IndustriALL global union, Calls for sustainable mining after 43 artisanal miners killed in DRC landslide, July 2019, <http://www.industrialall-union.org/calls-for-sustainable-mining-after-43-artisanal-miners-killed-in-drc-landslide>

"Forest-Smart Mining": The World Bank's Strategy to Greenwash Destruction from Mining in Forests



Ph: Profor.

An oxymoron describes "a phrase or statement that seems to say two opposite things." The World Bank has a lot of experience with oxymorons and oxymoronic initiatives related to forests. With a report titled "Making Mining Forest-Smart" and the launch of a "Climate-Smart Mining Facility" in 2019, it is adding two more to its collection. (1)

According to the World Bank's press release, the Facility will "support the sustainable extraction and processing of minerals and metals used in clean energy technologies." The motivation behind this new World Bank initiative is obvious: "The clean energy transition will be significantly mineral intensive," the World Bank explains on its website. (2) And the World Bank wants to be a central player in this "mineral intensive" transition. At the same time, it does not want to be seen to be funding an industry with an appalling track record of rights violations, a massive carbon footprint and a responsibility for large-scale deforestation and environmental devastation. The way out? A new initiative pretending that industrial mining can be "climate-smart", complemented by a report and case studies on "Making Mining Forest-Smart".

The first part of the "forest-smart mining" summary report provides an overview of the dirty and devastating reality of large-scale mining. The authors seem to have forgotten about the reality described in that first part, however, by the time they penned the section of the report outlining *what might be* if only the companies and governments responsible for the devastation and rights violations showed "responsible corporate behaviour". Why or how the real world mining industry linked to widespread destruction and violence would transform into such a responsible one, is explained neither in the report nor on the "climate-smart mining" section of the World Bank website.

Forest destruction as a result of industrial mining set to increase

Already today, seven per cent of the large-scale mines affecting forests directly are in tropical forest areas. In the report 'Making Mining Forest-Smart', the World Bank notes that "the

number of new large-scale mines in forest areas commissioned yearly has increased from 4-10 during the 1980s to 20 or more in the last decade." (3) And the percentage of large-scale mines directly affecting protected areas is also increasing rapidly. Because the World Bank is an important funder of large-scale mining and the infrastructure linked to such mines, it needs to make sure that its own environmental guidelines will allow the Bank to fund the mines even where mining will destroy forests or take place in protected areas.

Offsetting to greenwash "mineral intensive" energy transition

Policies put in place in the 1990s and first decade of the current century which restrict World Bank funding of certain destructive activities, such as mining in protected areas, are being adjusted to enable funding of the "mineral intensive" energy transition that will cause large-scale forest destruction.

The International Finance Corporation (IFC) is the arm of the World Bank which lends money to corporations in the private sector. In 2012, the IFC amended its key set of policies and regulations guiding IFC financing, the so-called Performance Standards. A critical change in this revision was the introduction of biodiversity offsetting into the IFC Performance Standard Number 6, which is the standard most directly related to environmental issues. This change opened the door for IFC to engage again in funding destruction caused by large-scale mining even in protected areas and forests that fall within the Bank's definition of "critical habitat." All a mining company requesting IFC funding for destruction of protected forests has to do, is present a proposal for how to "offset" the destruction ([see also article from Bulletin 215](#)).

Unsurprisingly, biodiversity offsetting plays a central role in the World Bank report on "Forest-Smart Mining". It was prepared by Flora Fauna Habitat, an international conservation NGO that has been actively involved in biodiversity offsetting initiatives in the mining industry. (4)

The mining industry as future funders of REDD+?

The World Bank report also connects the expansion of large-scale mining with REDD+, the controversial mechanism that has dominated international forest policy for the last 15 years. The report claims that in countries where mining plays a big role economically and where the government has set up the institutions, policies and plans for REDD+, "REDD+ could offer an important mechanism for promoting forest-smart out-comes from mining." How could such a coming together of the mining industry and REDD+ look like in the eyes of the World Bank's 'forest-smart mining' consultants? "In Kenya, for example, the Kasigau Corridor REDD+ Project [offers] a market-based approach to offsetting, into which a smaller mining company could invest instead of establishing its own scheme."

This is the same REDD+ project which has cemented historical inequalities over access to land and which has been cited as an example where deforestation that allegedly would have happened without the REDD+ project is exaggerated in the project documents so that the project can sell more carbon credits. (5) It is also the same REDD+ project that provided a greenwashing opportunity for BHP Billiton, one of the world's largest mining companies. In 2015, the largest mining accident in Brazil's history at the Samarco mine in the Brazilian state of Minas Gerais killed 19 people and displaced 700. The mine is run by a company jointly owned by mining multinationals BHP Billiton and Vale. (6) Less than a year after this disaster, with the river affected by the spill still running red, the IFC promoted BHP Billiton as a

REDD+ champion: As part of the IFC's 'Forest Bonds' initiative, BHP Billiton committed to buying any REDD+ carbon credits from the Kasigau Corridor REDD+ project in Kenya that buyers of the IFC's 'Forest Bonds' did not want. One purpose of this IFC initiative was to boost private sector funding for the REDD+ project and other REDD+ initiatives elsewhere that faced difficulties to sell their carbon credits. A buyer of a 'Forest Bond' (7) could choose to either receive their annual interest payment in cash or as a carbon credit from the Kasigau Corridor REDD+ project. And if Bond buyers did not want these REDD+ credits, BHP Billiton would take them instead. This was a welcome public relations strategy for BHP Billiton at a time the mining company was still facing the negative headlines from the mining disaster.

"Offsets are being offset"

In the section outlining "challenges", the report authors note that "increasingly offsets are being offset." The organisation Re:Common recently documented one such example in Uganda. (8) One condition for the controversial Bujagali dam to receive World Bank funding was that the hydro company had to commit to offsetting the destruction of iconic waterfalls that were being flooded by the Bujagali reservoir. A few years later, however, another company received approval to build another hydro dam on the Nile river – and the area flooded for that dam will flood the water falls that were to be protected as biodiversity offset for the destruction of the water falls as a result of the Bujagali dam – and the biodiversity offset is moved elsewhere. As described in the Re:Common report, this relocation of the biodiversity offset to a new site will once again restrict community use of land and fishing grounds and enable the expansion of luxury tourism facilities.

One thing is clear from even a cursory analysis of this World Bank proposal: A "significantly mineral intensive" energy transition that adopts the Bank's "Making Mining Forest-Smart" approach will be bad news for forests, forest peoples and the climate. The mining industry, meanwhile, can count on the World Bank to do its bit to greenwash the destruction and violence inherent in large-scale mining with this new oxymoronic 'forest-smart mining' initiative and accompanying pretty images for reports and websites.

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(1) Profor Website providing links to the 'forest-smart mining' report series:

<https://www.profor.info/content/forest-smart-mining-identifying-factors-associated-impacts-large-scale-mining-forests>

(2) World Bank Brief 'Climate-Smart Mining: Minerals for Climate Action'.

<https://www.worldbank.org/en/topic/extractiveindustries/brief/climate-smart-mining-minerals-for-climate-action>

(3) World Bank (2019): Making Mining Forest Smart. Executive Summary. https://www.profor.info/sites/profor.info/files/Forest%20Smart%20Mining%20Executive%20Summary-fv_0.pdf

(4) WRM (2015): World Bank paving the way for a national biodiversity offset strategy in Liberia. <https://wrm.org.uy/articles-from-the-wrm-bulletin/section1/world-bank-paving-the-way-for-a-national-biodiversity-offset-strategy-in-liberia/>

(5) Re:Common (2017): The Kasigau Corridore REDD+ Project in Kenya: A crash dive for Althelia Climate Fund. <https://www.counter-balance.org/redd-inequity-writ-large-e4-4-million-for-althelia-climate-fund-in-management-fees-while-villagers-in-kenya-ask-how-is-the-carbon-benefiting-me/>

(6) Re:Common (2017): Mad Carbon Laundering. <https://www.recommon.org/eng/mad-carbon-laundering/>

(7) A bond is a loan from a private investor to a company or a government which use the money they raise through selling these bonds to private investors to finance projects and operations. Instead of borrowing money from a bank, the company or government or municipality borrows the money from private investors directly. The contract linked to the bond includes details such as the date by which the company or government has to pay back the loan. Usually, the buyer of the bond also receives regular – annual - interest payments. In the case of the IFC 'Forest Bonds', the private investors could choose to receive these annual interest payments in the form of REDD+ offset credits instead of cash.

(8) Re:Common (2019): Turning Forests into Hotels. The True Cost of Biodiversity Offsetting in Uganda. <https://www.recommon.org/eng/turning-forests-into-hotels-the-true-cost-of-biodiversity-offsetting-in-uganda/>

Women, Forests and Extractive Industries: The Case of the Mikea Indigenous Women in Madagascar



Mikea woman in Madagascar carrying tubers of the baboho, the Mikea staple food that is gathered in the forest. Ph: CRAAD-OI

Madagascar is faced with unique challenges which arise from its position as a global biodiversity hotspot in a context where the extractive industries have become the main pillar of the national “development” policy. In particular, **Madagascar is one of the countries most affected by deforestation**, which is recognized as a major environmental problem with clearly gendered impacts on the population. The high priority given to the development of extractive industries at both national and international level will increase deforestation and worsen climate change. It will also exacerbate the disproportionately negative impacts on women, as evidenced in the case of the Mikea indigenous peoples of Madagascar.

Extractive industries: a major threat to forests and people

Madagascar is a so-called 'big Island' of 587 thousand km², located in the Indian Ocean at nearly 500 kilometres on the south-eastern side of the African continent. Madagascar is well known for its rich and unique biodiversity, which developed not least due to its insularity: for example, 32 species of primates, 30 species of chameleons, and 260 species of birds are found nowhere else in the world. Since the unique biodiversity of Madagascar is of global significance for the natural sciences, it has become the focus of international development assistance. (1)

In spite of its significant natural wealth, Madagascar is among the poorest countries of the world, with more than 70 per cent of the population affected by structural poverty. Over the last few years, the mining sector has become the focus of government policy efforts, with the argument that the sector has potential as the main tool for poverty reduction and development. Moreover, **transnational mining companies in search of new resources have paid increased attention to the significant mineral potential of the country, which is rich in diverse deposits and minerals, including nickel, titanium, cobalt, ilmenite, bauxite, iron, copper, coal and uranium, as well as rare earths.** Nickel-cobalt and ilmenite have attracted the majority of foreign direct investment thus far.

In particular, **the Base Toliara project, a large-scale mining project for ilmenite exploitation by Base Resources, an Australian company,** has been established in the south-western region of Madagascar. The mining project is **encroaching on the Mikea Forest.** This has attracted the attention of international conservation groups because of the forest's high biodiversity, including several rare and local endemic species of reptile, amphibian, mammal, bird, invertebrates and plants - 90 per cent of which are found nowhere else. Therefore, conserving the flora and fauna of the Mikea forest is of critical importance.

It has been argued by State actors, researchers and conservation groups alike that the main threat to the Mikea Forest is posed by incoming farmers burning and clearing land for maize cultivation and cattle grazing. (2) However, there is little talk from those groups about the new threat posed by the Base Toliara mining project, which is **expected to clear more than 450 hectares of natural vegetation, including hundreds of baobab and tamarind trees that are endemic to the region.** On the contrary, the mining company had been given the license to destroy the Mikea Forest, provided that its promoters present a "biodiversity offsetting" strategy. This is especially important since the **biodiversity offsetting mechanism has become an integral part of the prescriptions of the international financial institutions (IFIs)** that are the main lenders of the country and the mining projects, notably the World Bank Group and the African Development Bank.

In simple terms, this means that **Base Resources will destroy a significant part of the Mikea Forest, while "protecting" another area located outside the mining perimeter (the offset)** "in partnership with local communities and environment protection agencies", in exchange for the area that it will destroy. (3) The need for protection at the offset area is justified by the alleged threat to biodiversity caused by the forest-based livelihood activities and farming practices of indigenous and local communities. As a result, **these communities become victims of critical restrictions in access to their land, forests and resources on which they depend for their living.**

These detrimental impacts on the affected communities are already evidenced in the case of the biodiversity offset linked to the Rio Tinto QMM ilmenite mine on the south-eastern coast of Madagascar, where "the subsistence livelihoods of communities at the biodiversity offset site of Bemangidy-Ivohibe are made even more precarious by the offset project. Communities that were struggling already before are now facing an increased risk of hunger and deprivation as a direct result of a biodiversity offset benefiting one of the world's largest mining corporations." (4)

The gendered impacts of large-scale mining in Madagascar

Those affected by the large-scale mining operations are subjected to the restrictions on land and forest-use associated with the establishment of the mining and offset projects. Such resource use restrictions affect important subsistence and health-related activities, with critical and gendered impacts not only on livelihoods and food sovereignty, but also on customary and cultural rights.

In the south-western region, where the Base Toliara project for ilmenite exploitation is being established, **the Mikea indigenous women live almost entirely from hunting and gathering in the Mikea Forest.** For these women, the forest is “a place populated with spirits and mythical creatures which belong to Zanahary (the creator God). The forest must be used with moderation and respect for the spirits who live there.” (5)

As a result of the restrictions from the offset project, they are most likely to face a ban on a whole range of their forest-based livelihood activities, including the cutting of vegetation for charcoal production; hunting of endemic animal species for food; collecting fuel wood; collecting medicinal plants; collecting potable water; collecting materials for house construction; fishing; pasturing livestock, and collection of materials used for weaving baskets and mats.

In addition, women will lose their land and natural resources upon which they depend for their living to the mining company, in a context where they are among the poorest and vulnerable social groups. When agricultural land is no longer available, and/or soil and water sources are depleted or polluted, women's work burden is likely to increase in order to earn a decent income.

It is also important to underline that mining companies' representatives usually enter into negotiations only with men, excluding women from the compensation payments. Women have also little or no access to the employment or other “benefits” offered by the mining company. Thus, women become even more dependent on men, who are more likely to access and control these benefits, whereas **most of the social and environmental costs of mining are externalised on women.**

In addition to all these negative impacts, there are distinct impacts and added burdens on women. **As large-scale mining entails the replacement of subsistence economies, which have nurtured generations of communities and indigenous peoples, with the cash required to partake in the money economy, women become marginalised.** Their traditional roles as food gatherers, water providers, care-givers and nurturers are very much affected and their livelihoods that generate the cash required to partake in the money economy are destroyed by the mining.

Women, mining and climate change

The southern region of Madagascar is forecast to experience the most significant increase in temperature, coupled with successive episodes of floods and prolonged droughts. **These phenomena related to climate change will be amplified by the gendered impacts of the mining project operations in multiple ways.**

Chief among these is the **reduced water availability** for agriculture and the concerned communities, due to the significant extraction of water for mining operations along with the pollution of underground water by the mining company's tailings. This implies that to obtain water for their households, women would have to walk a long way to find a water source that is not polluted. They will also be confronted with the potential health impacts of the water pollution combined with the high prevalence of diseases induced by climate change.

Furthermore, the clearing of 455 hectares of natural vegetation by the mining project will entail the loss of living and interconnected forests on which women critically depend for their livelihoods and income, including the loss of species sensitive to the variations in temperature and rainfall linked to climate change.

In conclusion, large-scale mining is resulting in a number of specific impacts on women who are directly affected in their daily lives by an increased burden of care work such as collecting water, feeding their families and taking care of their health. They are losing out in almost all aspects related to this extractivist activity, especially in the context of climate change. **The case of the Mikea indigenous women in the face of the Base Toliara mining project in Madagascar shows that such a large-scale mining project further pushes women into poverty, dispossession and social exclusion.**

Zo Randriamaro

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(1) Wright (1997): <https://www.karger.com/Article/PDF/157230>, pg. 381.

(2) Blanc-Pamard, C.(2009): The Mikea Forest Under Threat (southwest Madagascar): How public policy leads to conflicting territories. Field Actions Science Reports, Vol. 3, 2009; and Stiles (D.) 1998, *The Mikea Hunter-Gatherers of Southwest Madagascar: Ecology and Socioeconomics. African Study Monographs* 19(3):127-148 · January 1998.

(3) Coastal and Environmental Services (2013): Projet minier de Ranobe, région Sud Ouest, Madagascar. Version Préliminaire d'Etude d'Impact Environnemental et Social.

(4) WRM, Re:Common and Collectif TANY (2016): Rio Tinto's biodiversity offset in Madagascar, <https://wrm.org.uy/other-relevant-information/new-report-rio-tintos-biodiversity-offset-in-madagascar/>

(5) Idem (2)

** On 06 November 2019, the Council of Ministers suspended all activities related to the Base Toliara mining project. **Please sign on to support communities in Madagascar standing up against the Base Toliara Mining Project and calling for its permanent suspension. Sign the petition (in English) here:** <https://docs.google.com/forms/d/e/1FAIpQLSehB-5gsPidEj-Xje3jHDwEDyOqYvHuy6HOwPQTwnzCH8VHrg/viewform>*

Brazil: Hydro Alunorte's Alumina Tailings Dam. A Disaster Foreshadowed



Barcarena, Brazil, tailings dam. Ph: Pedrosa Neto

Despite its downturn, the mining industry has grown—both in terms of volume of minerals extracted and financial gain—with the opening and expansion of new mines and refineries worldwide. With regard to aluminum and financial flows, for example, exports from Brazil grew from around 129,033 tons in 2000 to 930,206 tons in 2017. (1)

In 2017, in the state of Pará, Brazil alone, 5,014,443 tons of alumina and 208,906 tons of aluminum were exported from the port of Vila do Conde (municipality of Barcarena). The company, Hydro Alunorte, was responsible for all of this economic flow (from the export of aluminum).

Alunorte's plant in Barcarena, owned by Norsk Hydro, is considered the largest alumina refinery in the world, in addition to having all the technologies—technical, scientific, political and economic—for the extraction, production and distribution of the mineral. This implies **complete control over the aluminum chain of production**—from the extraction of bauxite, to refinement of alumina, to its transformation into primary aluminum and laminate products, to its exportation.

Norsk Hydro is a **Norwegian multinational company** with 2.69 billion shares issued, 34.7% of which belong to the Norwegian State. Other notable shareholders include State Street Bank and Trust Comp (United States), Clearstream Banking (Luxembourg), HSBC Bank (Great Britain), J. P. Morgan Bank Luxembourg (Luxembourg), Banque Pictet e Cie (Switzerland), J.P Morgan Chase Bank (Great Britain) and Euroclear Bank (Belgium).

Based on data from 2017, an average of 14% of Hydro Alunorte's production (from Barcarena) goes to the Brazilian domestic market, and the remaining 86% is for export. **Currently, the company exports mainly to Canada, Norway, Iceland, Russia, the United States, United Arab Emirates, Latvia, Japan and Mexico** (2).

In 2010, Hydro bought (for US \$4.9 billion) the assets related to the production of bauxite, alumina and aluminum from one of the world's largest mining companies, Vale—which will receive US \$1.1 billion and a 21.6% share in Hydro, valued at US \$3.1 billion (3). This acquisition included the bauxite mining operations in Paragominas, Pará, the majority share in the world's largest alumina refinery—Alunorte, in Barcarena—and a 51% share in Brazil's leading aluminum company, Albras (now a joint venture between Norsk Hydro and Nippon Amazon Alumunium Co. Ltd).

In 2013, Hydro bought 407,122,241 shares of Vale for US \$1.656 billion. Thus, Vale's 21.6% stake fell to 2.0% of the shares authorized and issued by Hydro. That same year, Hydro **merged with SAPA Alumunium** for a value equivalent to US \$3.381 billion. In that context, there was an expansion of Hydro Alunorte's productive activities, as well as its waste dams.

What Are Mining Tailings Dams?

In order to store the waste products of mineral extraction, mining companies build what are called tailings dams, also known as waste ponds. These wastes contain high concentrations of chemicals, as well as mud deposits, finely ground stones and water that remains after the metals are separated from the minerals. As mineral deposits are exploited, tailings dams are built; therefore as the mine grows, so do the dams.

The growth of mineral extraction and mineral-metallurgical production over the last century—and the consequent proliferation of these dams—occurred at the same rate as **the emptying and break of tailings dams in various parts of the world** (4). The most notorious dam rupture in Brazil, of the Samarco Mineração S.A. company, occurred in November 2015 in the municipality of Mariana, in Minas Gerais, followed by the Brumadinho disaster in 2019.

The consecutive emptyings of Hydro Alunorte's tailings dam in Barcarena, Pará state, also stand out. The most dramatic cases have been the disasters that occurred in April 2009 and February 2018. All of these ruptures occurred in very close succession.

The 2017 Dam Safety Report by the National Water Agency (ANA, by its Portuguese acronym) states that there are **753 industrial waste retention dams and 790 mining tailings dams in Brazil** (5).

The Norsk Hydro Alunorte Disasters

Hydro Alunorte has two tailings dams (DRS1 and DRS2/seized). Yet, the company refuses to call its place of waste a "dam," calling it instead a bowl or deposit; therefore, these dams do not appear on the 2019 National Mining Agency list. In public discourse, as well as in the very process of environmental permitting, these areas are treated as Solid Waste Deposits (DRS, by its Portuguese acronym).

The company's aforementioned process of self-definition began with the inauguration of Alunorte in 1995. According to Alunorte's 2009 annual report (the year of the major disaster caused by overflow from the waste dam), the first DRS cell was opened in 1995, covering approximately 15 hectares. In 2009, the "dam" already took up about 130 hectares. **When it overflowed, this waste reached the Mucurupi river and its tributaries, directly affecting the lives of almost 100 families who live in the area, and indirectly affecting thousands**

of other families who depend on the rivers. These families were left without water to drink or for domestic use, and they could not even fish for food; furthermore, the water wells that the affected families used were also contaminated with heavy metals.

It is worth noting that **Hydro “took advantage” of the very area where the 2009 overflow took place in order to expand DRS1**, while planning installation of a new structure. In this light, the filing of Environmental Impact Studies and Environmental Impact Reports (EIS/EIR) ends up being mere administrative procedure.

On February 16th and 17th of 2018, one of the Hydro Alunorte overflows occurred, which also emptied toxic waste and heavy metals (lead, chromium and nickel). This disaster reached communities (particularly Bom Futuro, Vila Nova, Burajuba), **secondary water courses and the Pará river.** This was an emblematic case of the systemic denial by the company—and first of all, by the State—who blamed the heavy rains. Conduct Adjustment Terms (TAC, by its Portuguese acronym) for repairs and emergency actions were even signed between the Federal Public Prosecutor (MPF by its Portuguese acronym), the Pará State Public Prosecutor (MPPA, by its Portuguese acronym) and Hydro Alunorte.

The company used excessive rains as the core piece of their argument—which is a deceptive discursive fabrication. Data from 1977 to 2006 from the Mineral Resources Research Company (CPRM, by its Portuguese acronym) confirm this. When confronted with the data available from the Center for Weather Forecasting and Climate Studies (CPTEC, by its Portuguese acronym) of the National Institute for Space Research (INPE, by its Portuguese acronym), one could confirm that the rains on February 16th and 17th in Barcarena were within the historical patterns, and therefore, cannot be “blamed” for the disaster. Nonetheless, there was no embargo or cancellation of the environmental permits granted to DRS2.

The narrative was created, that the overflows were “normal accidents” or “natural disasters”—comparable to flooding and earthquakes. This ends up creating an isolated event that ignores **the social complexity and the historical, political and economic processes that created the disaster; it also hides power structures and forces that significantly contribute to the production of disasters.**

In this way, the disaster is not simply an isolated element in time and space; rather, it points to the structural relationship between episodes of tailings dam breaks and the economic cycles of mining. Meanwhile, it reveals **the game of interests and the associations among the State and companies, with their “fine-tuned discourse.”**

These disasters are not due to human error or negligence, nor to flaws in laws or systems; rather, they are examples that show that **environmental control structures grant “licenses” to State-concessionary companies to commit environmental crimes.** We can point to the following “licenses”: i) The technical opinion of the Secretariat of the Environment and Sustainability (SEMAS, by its Portuguese acronym), on January 16, 2019, which ensures that Hydro can now operate at 100% capacity; 2) The Public Prosecutor’s (MPF) determination in May 2019 to end the embargo on Hydro Alunorte’s aluminum refinery; the judicial decision enabled the company to resume operations at 100%, whereas it had only been operating at 50% following the disaster (crime) of February 2018; 3) The joint Petition and Protocol of Understanding between Hydro and the MPF about ending the

embargo on DRS2 (6). It should be noted that DRS2 was operating without an environmental permit, and it is located within an ecological reserve (environmental protection area).

A Chain of Foreshadowed Disasters and Environmental Crimes

Historically, these environmental crimes and contamination go hand in hand with other disasters. These disasters point to the **increase in expropriations (dispossession/forced evictions)—due to the installations and expansion of industries and major economic agents**—which in themselves are “disasters” that contribute directly to the degradation of life in the municipality of Barcarena (7).

In these areas, which were expropriated in the 2018 Hydro Alunorte disaster, “there was a whole complex social structure made up of countless rural communities, with a native population with strong ties of kinship and religion—who practice fishing, hunting and gathering, as well as small subsistence farming” (8).

These new disasters are related to 1) (new) expropriations/evictions; 2) deforestation; 3) contamination of rivers; 4) impairment of artisanal activities and the fishing economy; 4) private use of streets and roads; 5) increased prostitution and worker mobility (clogging the education and health sectors); 6) creation of dependence on temporary employment; 7) territorial conflicts (between families and communities); 8) land and real estate speculation; 9) increase in urban violence.

Meanwhile, small-scale rural producers (and their migration to cities) are dwarfed and seen as inferior; histories and lives disappear, and human, ethnic and territorial rights are violated. **These violations are taking place because they are naturalized; this process makes people invisible and legitimizes the social domination of oppressive capitalist systems and policies. As a result, the histories and memories that have been built—of gardens, orchards, fishing, “baths” in the river, beliefs and symbologies—are suffocated.**

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India: Mining, Deforestation and Conservation Money



Despite persistent and loud claims about forest cover increase in India ([see article from WRM Bulletin 233](#)), the country continues to lose forests at an alarming rate. According to official statistics compiled by the Ministry of Environment, Forests and Climate Change, a total of 1 million 500 thousand hectares of forests were diverted between 1980 and 2019: more than 500 thousand hectares for mining, the rest for thermal power, transmission lines, dams and other projects. (1) In the last three years alone (2015-18), the Indian Government has given ‘forest clearances’ of more than 20,000 hectares (2), licensing destruction of mostly dense forests. **While there are many triggers of deforestation in India, mining, both legal and illegal, is perhaps the most significant one.**

Along with legally sanctioned mining, large-scale illegal mining, often allowed under political patronage, forms another major source of deforestation. A recent study of mining-driven deforestation covering over 300 districts points out that **states that account for about 35 per cent of India's forest cover -Odisha, Chhattisgarh, Madhya Pradesh, Karnataka, and Jharkhand— also produce large amounts of coal and iron.** (3) Some of these states have consistently recorded forest cover decrease in the recent past according to official forest cover data. Districts with coal mining - Chhattisgarh, Jharkhand, and Madhya Pradesh- have witnessed 519 km² of forest cover reduction compared to districts that do not have coalmines.

The Indian state seems **determined to keep opening the remaining forests to mining.** In February 2019, the Indian government granted stage-1 preliminary forest clearance for an opencast coalmine to the multinational conglomerate Adani group, in one of the largest contiguous stretches of the very dense Hasdeo Arand forest in Chhattisgarh that spans 170,000 hectares (4). This happened even though in 2009, the Hasdeo Arand forest area had been declared a no-go zone for mining, following submission of the Report of the governmental Committee of Land Reforms and State Agrarian Relations (CLSR) to the Government of India and the Prime Minister’s Office. (5)

The Hasdeo Arand forest diversion is a typical case. **Not only are existing laws disregarded and tweaked, but pressing environmental concerns are casually ignored to benefit a private corporation owned by a close friend of India's Prime Minister.** The forest department of the Chhattisgarh state government objected to the diversion because the area is an important wildlife corridor. (6) Local communities, whose consent is mandatory for any case of forest diversion, were also opposed to mining. This, too, was ignored, as the Forest Advisory Committee to India's Ministry of Environment, Forests and Climate Change granted the forest clearance solely based on the fact that mining was already going on in the region. Three more proposals are under consideration that would destroy forests in the Hasdeo Arand area. **This insane logic of one-mine-automatically-justifying-clearance-for-more-mines begs the pertinent questions whether the government "expert" bodies take into account environmental, ecological and social impacts of the proposed projects at all while deciding on future forest clearances.**

The answer is most likely no. But let's go back to Chhattisgarh. The landmark 2006 Forest Rights Act (FRA) requires community consent on the completion of the forest rights recognition process for granting any forest diversion permit. Thus, such **forest clearances are routinely issued on the basis of "consents" obtained largely by coercion and fraud.** (7) If consent cannot be manufactured, the concerned administrative authorities resort to more elaborate practices. For instance, in the coal mining area of Sarguja, the Chhattisgarh State Government 'took back' entitlements for community forest resources it had issued earlier, claiming that the villagers caused disturbances to mining operations in the area and that the approval for mining preceded the entitlements. (8)

While FRA gives sweeping powers to forest communities and their institutions to take back effective control of forests, besides recognising a wide range of forest rights arbitrarily and often illegally extinguished during the colonial forestry regime and also after, the Indian state has been unwilling to implement the law. However, **new movements in opposition to extractive industries and state stranglehold over forests, picking up older legacies and threads, increasingly started to mobilise around FRA's implementation.**

In the last two decades, **strong tribal and peasant movements against mining erupted in many forest areas of India.** In Niyamgiri, Odisha, the Dongria Kondh forest community mobilized successfully against a proposed bauxite mining project by the infamous Vedanta group. In Mahan, in Madhya Pradesh, forest communities succeeded to stop a large coalmine project jointly owned by Essar and Hindalco. Forest communities, including the indigenous Madia Gonds in the Gadchiroli district of Maharashtra, have long been opposing a string of proposed iron mines in dense forests. In the neighbouring Korchi area, communities' resistance accomplished the withdrawal of an iron mining project. And also in the Sarguja and Raigarh districts of Chhattisgarh, communities have mobilised against coal mining. (9)

In the *Pathalgadi* (erection of stones) movement that took the tribal heartland of India by storm in 2017-18, *Gram Sabhas* (community assemblies) in Jharkhand, Chhattisgarh, Odisha, Madhya Pradesh and Telengana, **erected stones to mark their territories and proclaim full autonomy in all matters of governance**, in accordance with provisions of Indian Constitution and legislations such as FRA. (10) It is no coincidence that *Pathalgadi* happened where most of India's coal reserves are located.

Mining money goes to evict people from so-called "protected areas"

The Indian Government counts such rampant diversions of forests among the “organised” and “managed” drivers of deforestation, and apparently it does not list those emissions in its greenhouse gas emissions inventory. However, **it collects huge sums of money from the companies using forested lands, such as mining companies, according to its controversial Compensatory Afforestation protocol.** This money is supposed to be used for raising plantations and “gaining value” from ecosystem services. (11) After the enactment of the Compensatory Afforestation Act in 2016 (CAF Act), the accumulated funds (better known as CAMPA funds) would now reach the state forest departments with greater ease, and as the struggle groups apprehend, **it would be increasingly used to undermine community control over forests.**

Mining hurts and destroys forests and forest communities in many ways. In India, one way is also established via the CAMPA Fund. **The Indian state is in fact using the money in this Fund to harass, persecute and ultimately evict people from the so-called Protected Areas, such as the Tiger Reserves, National Parks and Wild Life Sanctuaries. Mining and wild life conservation are in many areas literally concomitant.** One example is the Tadoba-Andheri Tiger Reserve (TATR) in Maharashtra. A 2010 report by the National Tiger Conservation Authority (NTCA) and the Wildlife Institute of India shows the TATR and adjoining forest areas of Chandrapur as one of the five corridors that supports tiger ‘meta-populations’. This, and another slightly later report by Greenpeace India, pointed out that rapid land use change in form of mining, roads, railways, power plants, dams and other industrial infrastructure were threatening this corridor. (12) TATR could function as a source population, from which peripheral forests could be also populated with tigers. Nonetheless, since 2000, coal mining destroyed over 2,500 hectares of forests in the Chandrapur district, excluding the land diverted for the related infrastructure, as well as the large-scale air and water pollution.

Not concerned with the evident impacts of mining in and around a legally designated “tiger” forest area, the TATR authorities have meanwhile decided to “relocate” six villages, with a total population of more than 1,000 families out of the reserve. Already in 2007, inhabitants and few other tribal families from a nearby location were relocated at Bhagwanpur colony, near Ajaypur, Chichpalli forest range. And in 2012, another relocation took place near Khadsangi village near Chimur. However, because the relocation area had no agricultural land, villagers were asked by the department to use “vacant land” in Chimur forest range.

Relocation of villages continues to secrete conflicts because the forest department keeps on pressurizing the villagers to move away, while granting permission to large mining companies to operate. The pressures have taken many forms: restricting the forest villagers’ customary access to forests (ban on grazing, fishing, collection of firewood), not allowing the routine welfare schemes to come to the village, threats of legal action and finally, harassment by forest officials and police. **The department, aided by several wildlife NGOs, is trying hard to evict the villages that still refuse to be relocated.** For instance, **criminal cases** have been filed against a number of villagers at Kolsa and, to add to the inconvenience, the forest department is **denying people all access to forests** as well as **restricting their use of nearby roads** to the villages. The Kolsa *Gram Sabha* has submitted their claims under the FRA, yet, these are being ignored.

However, relocating villages is an expensive proposition. It means paying Rs.10 lakh (around 14 thousand US dollars) to each family (or land for land rehabilitation with houses and infrastructure, according to the guidelines first issued by the NTCA in 2008). The Maharashtra forest department and the NTCA, which funds relocation programmes in tiger reserves, now face an acute shortage of funds. Thus, **the National Tiger Conservation Authority sought to release more funds from CAMPA to facilitate relocation and other conservation “priorities”**. In 2013, the Ministry of Forests and Environment approved a proposal from NTCA for releasing Rs. 1000 Crore (around 140 million US dollars) from the national CAMPA fund, despite protests by civil society representatives and overriding objections raised by the Ministry of Tribal Affairs (MoTA). The process of villages’ relocation, according to MoTA, is in violation of the provisions of both the 2006 Forest Rights Act and the Wild Life Protection Act (1972-2006), both of which make the *Gram Sabhas*’ consent mandatory.

CAMPA funds continue to be used for relocation purposes, however. In November 2013, NTCA released Rs. 21.64 Crore (around 3.5 million US dollars) from the CAMPA fund to TATR authorities for relocation purposes. Before this, the Maharashtra state government released another 15.50 Crore (around 2.2 million US dollars) of CAMPA money for the same purposes. This was announced by Virendra Tiwari, chief conservator of forests (CCF) and field director of TATR. **The Maharashtra state government proudly listed such relocation programmes with CAMPA money as its “achievements.”** And in order to be certain that the relocation work (i.e. eviction of forest communities) does not stop because of lack of funds, the Annual Plan of Operations for the financial year 2017-2018 prepared by the Maharashtra Forest Department has 62 Crore (around 8.8 million US dollars) under a component called “rehabilitation of villages in Protected Areas”, while provision for another 74 Crore (around 10.5 million US dollars) has been kept in the 2018-2019 Annual Plan.

After the rules for the Compensatory Afforestation Fund were notified, things became easier for the Forest department and its allies. States were handed out bulk moneys according to their forest sales proceeds. **Not unexpectedly, the mining states of Odisha, Chhattisgarh, Madhya Pradesh, Maharashtra and Jharkhand were among the largest beneficiaries. After all, this is their reward for all the hard work that had gone into opening up dense forests for mining.** In August 2019, Prakash Javadekar, the Minister of Environment, Forests and Climate Change, officially released the accumulated Compensatory Afforestation Fund money to the state forest departments. A mindboggling 47,436.18 Crore Rupees (around 67 billion US dollars) were distributed among the states for “afforestation” purposes, which in reality this will very likely mean “relocation” and industrial monoculture plantations.

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(2) According to information presented in the Parliament, Telangana topped the list with 5,137.38 hectares, followed by Madhya Pradesh with 4,093.38 and Odisha with 3,386.67 hectares. See <https://scroll.in/article/908209/in-three-years-centre-has-diverted-forest-land-the-size-of-kolkata-for-development-projects>

- (3) Ranjan. R(2019): *Assessing the impact of mining on deforestation in India*, Resources Policy 60 (2019) 23–35, <https://www.sciencedirect.com/science/article/pii/S030142071830401X>
- (4) See: Hindustantimes, Adani closer to mining in green zone in Chhattisgarh, February 2019, <https://www.hindustantimes.com/india-news/adani-closer-to-mining-in-green-zone-in-chhattisgarh/story-uVIKz0aK8Lk8NH7C09x4bI.html>, also Down to Earth, Central panel opens up forest for Adani mine despite Chhattisgarh's reservations, February 2019, <https://www.downtoearth.org.in/news/mining/central-panel-opens-up-forest-for-adani-mine-despite-chhattisgarh-s-reservation-63221>
- (5) Government of India (2009): *Report of the Committee of Land Reforms and State Agrarian Relations (CLSR)*, https://dolr.gov.in/sites/default/files/Committee_Report.doc
- (6) See Chaturbedi. S (2019): *Allocating forest land in Chhattisgarh for coal mining is cause for alarm; deforestation has risen significantly in recent decades*, <https://www.firstpost.com/india/allocating-forest-land-in-chhattisgarh-for-coal-mining-is-cause-for-alarm-deforestation-has-risen-significantly-in-recent-decades-6367581.html>.
- Kaushalendra Singh, principal chief of wildlife management and biodiversity conservation, pointed out that there are already two coal mines operating in the area, besides a 75-kilometre-long railway line to transport coal, all of which disturb elephant corridors. The additional chief secretary (for forests) of the state government had also suggested that a more detailed site inspection is required before a decision is taken for diverting the forestland. However, the January 15, 2019, Forest Advisory Committee's meeting minutes evidenced how the Committee decided against this, noting that "no additional information is expected to be obtained by one more site inspection". See Government of India (2019): Minutes Of The Meeting Of Forest Advisory Committee Held On 15th January, 2019 /Agenda No. 2/F.No.8-36/2018-FC, http://forestsclearance.nic.in/writereaddata/FAC_Minutes/111211217121911_20190121192001153.PDF
- (7) See Greenpeace article from 2014: <https://www.greenpeace.org/india/en/issues/environment/2547/mahan-gram-sabha-to-be-held-behind-a-curtain-as-police-seize-signal-booster-solar-panels-and-other-communication-equipment>. In March 2015, the Ministry of Environment refused clearance for the Mahan project. Subsequently, Ministry of Coal announced that the Mahan coal block would not be auctioned for mining: See <https://www.bbc.com/news/world-asia-india-32443739>
- (8) Sethi 2016; Kohli 2016
- (9) In Korchi alone, 12 mining leases were proposed, impacting over 1032.66 hectares. See Neema Pathak Broome. N.P, Bajpai. S and Shende. M(2016): *Reimagining Wellbeing: Villages in Korchi taluka, India, Resisting Mining and Opening Spaces for Self-Governance*: <https://wrm.org.uy/articles-from-the-wrm-bulletin/section1/reimagining-wellbeing-villages-in-korchi-taluka-india-resisting-mining-and-opening-spaces-for-self-governance>. See also <https://www.downtoearth.org.in/news/mining/experts-panel-red-flags-power-mining-projects-in-western-ghats-37201> and <http://cat.org.in/portfolio/trials-oppose-cluster-of-4-iron-ore-mines-in-zendepar/>; See also Sethi. N: *Five coal blocks in Chhattisgarh might see land conflict*, January 15, 2015: https://www.business-standard.com/article/economy-policy/five-coal-blocks-in-chhattisgarh-might-see-land-conflict-115011500019_1.html; and interviews with activists from All India Forum of Forest Movements (AIFFM).
- (10) Singh. A (2019): *Many Faces of the Pathalgadi Movement in Jharkhand* in *Economic and Political Weekly*: 54(11) 16 Mar, 2019
- (11) Ghosh. S (2016): *Selling Nature: Narratives of Coercion, Resistance and Ecology*, in Kohli. K and Menon. M (eds.): *Business Interests and Environmental Crisis*, Sage, Delhi
- (12) Jhala Y.V, Qureshi., Gopal, R., and Sinha, P.R. (Eds) *Status of Tigers, Co-predators and Prey in India*, 2010. National Tiger Conservation Authority (NTCA), Govt. of India, and Wildlife Institute of India, Dehra Dun; and Greenpeace India Society, '*Undermining Tadoba's Tigers: How Chandrapur's tiger habitat is being destroyed by coal mining*', a fact-finding report, 2011.

Contesting a “Blue” Pacific: Ocean and Coastal Territories under Siege



Ph: Pacific Network on Globalisation (PANG)

Global powers including governments and transnational corporations backed up by multilateral financial institutions, together with Pacific Island nations are racing to divide up the ocean under the narratives of so-called sustainable Blue Economy and Blue Growth in order to justify its exploitation. Technology advances make once-unfeasible exploiting of the deep depths of the ocean increasingly viable. This will allow corporations to **plunder oceanic resources in a bid to supposedly secure food security** (with industrial fishing, shrimp farms, etc.) **and to obtain minerals needed for developing so-called “green” technology and renewable energy** for the global Northern economies and emerging powerful economies in the South, such as China.

Covering approximately 59 million square miles (over 15 billion hectares) and containing more than half of the free water on earth, the Pacific is by far the largest of the world’s ocean basins and is home to the Pacific Island countries and its peoples. (1) **The ocean, for indigenous peoples in the Pacific islands, includes both, coastal land and the deep ocean.** For the Pacific people, who have a spiritual relationship with the ocean, its industrialization reshapes once again the way the ocean has been defined: from that of its former colonial rulers (vast, far flung, inaccessible, underdeveloped and underexploited) into that of transnational corporations and multilateral financial institutions. Both definitions must be resisted.

Ocean territories have been a pillar of trade and economic activities and a major source of food, energy and livelihood for centuries. (2) The UN puts the economic value of the coastal and marine “resources” at 3 trillion US dollars. (3) The OECD suggests that the ocean economy, which includes industrial and coastal fisheries, aquaculture, tourism and renewable energy as well as new areas including deep sea mining and genetic resources, is likely to outpace the global economy in the next 15 years.

Besides the economic valuation, oceans provide 50 per cent of atmospheric oxygen and absorb 25 per cent of CO₂ emissions and this ensures a habitable planet. (4) **Oceans and coasts are home to extraordinary biodiversity and unique ecosystems.** Coastal coral reefs and mangroves alleviate the impacts of storms and protect beaches. Coastal forests provide habitats, food and livelihoods for many communities in the Pacific Islands.

At least 40 per cent of our oceans however are already **heavily polluted and showing signs of ill health.** (5) In the past decades, as scientific understanding increases, concerns over how to manage and conserve the areas beyond national jurisdiction have increased. Scientists admit they have a poor understanding of the deeper parts of the ocean; more is known about the surfaces of the moon, Venus and Mars.

The **Blue Economy** concept, which grew out of the broader green growth idea, heralds a new race to carve up the Pacific, turning it into a crowded and disrupted space. Pacific state leaders are courted with economic gains that are a fraction of the value of the ocean resources that will be extracted. Already some Pacific Island governments, without the consent of their peoples, have **issued commercial as well as exploration licenses to significant parts of their territories for experimental mining of deep-sea minerals.** (6) These explorations pose serious threats to the ocean and coastal territories.

The prevailing perception, argued by many Pacific thinkers (7) and writers, is that smallness in terms of land size has meant that Pacific island countries are forever vulnerable, lacking power and therefore dependent on the former colonial powers, industrialized states or any country with technical resources, and new and emerging development partners, for their long-term survival. (8) However, that misleading perception should not enable our ocean territories to be handed over, destroyed or ceded to external interests.

Cautionary tale of deep-sea minerals and ocean's "untapped riches"

The depletion of land-based minerals, with associated devastating impacts on forests and communities, coupled by a **higher demand for "green" technology (9) and infrastructure,** is set to make the ocean the next frontier for exploitation of minerals such as copper, lithium, rare earth minerals, cobalt, and manganese nodules. The exploitation of minerals on the sea floor at around 400 to 6000 meters below sea level is set to take place in the Pacific Ocean, the Indian Ocean and the Clarion Clipperton Zone. In total, the area covered by deep-sea minerals licenses is astonishing: over 1.3 million square kilometres of seabed (around 130 million hectares).

In the Pacific, **deep-sea mining is perceived as an imminent venture** with countries like Cook Islands, Kiribati, Nauru, Papua New Guinea (PNG) and Tonga, seen as some of the pioneers. Despite the experimental nature of the industry, **exploration has already begun** within the territorial waters of these countries. **PNG issued the world's first commercial license in 2012** which was set to commence exploitation in 2019. However, due to lack of investor interest in PNG's Nautilus Mineral Solwara project linked to the enormous risks and associated costs, the miner was forced to close operations after being de-listed from the Toronto Stock Exchange.

The elaboration of **a model legislation for Pacific Island countries sponsored by the European Union Commission** signalled the "readiness" of the Pacific. (10) Unsurprisingly, a

review of this model legislation found that it focused more **on ensuring a clear licensing regime and conditions that are favourable to industry** rather than to ensure the defence of the Pacific peoples and their environments (11).

Industry has long argued that nothing lives deep in the ocean, but the very opposite is true. This framing of deep sea mining as having social and environmental low risks while ensuring a high return ignores several pertinent realities. For example, **we are just learning based on scientific evidence about the impacts that mining will have on the deep seabed and the waters there, while early impacts are being felt by coastal territories and villages less than 30 km away from some of these sites**. In addition, several studies have found that the economic value of minerals is highly speculative in nature due to the price fluctuations.

There is increasing evidence that deep-sea mining poses a grave **threat to the vital balance of different planet's functions**. Most studies also found that there will be little to zero recovery of biodiversity after depleting the mineral reserves. More disturbing is that given these industrial scale operations (both in terms of size, intensity and duration), the **results would be devastating** and its effects would cover large areas of the ocean floor and beyond.

In the Pacific, **coastal communities in New Ireland and East New Britain in PNG are already experiencing the negative impacts** from the exploratory mining and drilling occurring 30-50 kilometres from their communities. Villagers have reported an increase in frequency of dead fish washed up on shore, including a number of deep sea creatures hot to the touch, as well as excessively dusty and murky waters.

Role of the Pacific Peoples Resistance

Pacific Philosopher Professor Epeli Hau'ofa, in his paper *Our Sea of Islands*, argued that there are no more suitable people on this planet to be guardians of the world's ocean than those for who call it home: *"Our roles as custodians in the protection and the development of our ocean is by no means a small task; it is no less than a major contribution to the well-being of humanity, a worthwhile and noble cause."*

The irony cannot be ignored. In this era of climate change, **the Pacific People**, who have contributed the least to cause it and are acknowledged to be already bearing a disproportionate burden in terms of the effects, **are also now facing another attack of equivalent if not greater significance**.

Deep sea mining must be resisted. **In 2011, a collective** including feminist and community groups, regional non-governmental organisations and churches (12), **organized research and analysis** to better understand the implications of deep-sea minerals exploitation for the Pacific peoples and the ocean.

In 2012, **8,000 signatures were collected** to caution the Pacific Island Forum Leaders over deep sea mining, while in 2014 the Lutheran church issued a **signed petition representing over one million of its members to the PNG Government** over growing concerns about the impacts of this industry.

In Vanuatu, the collective, working closely with the Vanuatu Council of Churches and the Vanuatu Kaljoral Senta (cultural centre), persuaded the government to put a halt on the issuance of new licenses after it emerged that over a 140 licenses were issued without the prior knowledge of parliament and let alone the custodians of the ocean. Globally, activists from PNG and Fiji made an appeal in Brazil at the Rio + 20 Summit in 2012 and in Europe in 2014 to garner support for a ban on seabed mining. It took three years of lobbying and advocacy efforts with European partners, before the **European Parliament supported a moratorium in 2017 on deep-sea mining. Palau has placed a ban on commercial activities including fisheries and mining.**

In addition, **the Fiji Government has recently announced a 10 year moratorium on deep sea mining** activities at the Pacific Islands Forum Leaders meeting. The moratorium was supported by the governments of Papua New Guinea and Vanuatu. Likewise, **the government of New Zealand has rejected applications for deep sea mining** within its territorial waters, whilst the governments of **the Northern Territory of Australia and Chile** have a ban in place against seabed mining.

Much of the shift to a more cautionary approach has been **the result of resistance by local communities supported by a wide cross section of actors** including concerned scientists, academics and civil society organizations.

The Pacific Network on Globalisation (PANG), www.pang.org.fj

A regional watchdog promoting Pacific peoples' right to self-determination. PANG mobilizes movements and advocates based on substantive research and analysis to promote a Pacific peoples' development agenda.

(1) There are 26 Pacific island countries of which 16 are sovereign states, while 8 are still territories including disputed colonial territories of France (New Caledonia, French Polynesia, Wallis and Futuna Islands), Indonesia (disputed West Papua), USA (Guam, Hawaii, CNMI, American Samoa). Altogether, these countries represent a population of close to 20 million people.

(2) The ocean is a primary source of protein for over 3 billion people (www.un.org/sustainabledevelopment/oceans/).

(3) European Commission, Blue Growth, https://ec.europa.eu/maritimeaffairs/policy/blue_growth_en

(4) IISD, High-level ocean and climate conference bulletin, <http://enb.iisd.org/oceans/climate-platform/html/enbplus186num14e.html>

(5) UNDP, Life Beyond Water

www.undp.org/content/undp/en/home/sustainable-development-goals/goal-14-life-below-water.html

(6) Almost all Pacific Island Countries with the exception of Samoa and Palau have issued exploration licenses to transnational corporations whilst Papua New Guinea is the first country in the world to have issued a commercial license.

(7) Epeli Hauófa, *Our Sea of Islands*, in *A New Oceania: Rediscovering Our Sea of Islands*, ed. Eric Waddell, Vijay Naidu and Epeli Hauófa (1993), 2—17.

(8) <http://fijisun.com.fj/2018/09/12/opinion-china-the-pacific-islands-and-the-wests-double-standards//>

(9) The Copper Alliance argues that every mobile phone needs 0.02kg of copper; for cobalt it is estimated that Volkswagen will need at least one third of the current entire global supply by 2025 for its energy efficient cars; geologists suggest that if all European cars are electric by 2040 (using Tesla Model 3), they would require 28 times more cobalt than is produced now. https://www.bbc.co.uk/news/resources/idx-sh/deep_sea_mining

(10) The SPC-EU Deep Sea Minerals Project has 15 Pacific Island Countries: The Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Timor Leste, Tonga, Tuvalu and Vanuatu. See the SPC-EU DSM Deep Sea Minerals Project, Secretariat of the Pacific Community, <http://gsd.spc.int/dsm>

(11) Blue Ocean Law (2016): An Assessment of the SPC Regional Legislative and Regulatory Framework for Deep Sea Minerals Exploration and Exploitation. Guam.

<http://blueoceanlaw.com/publications>

(12) In 2012, Act Now! PNG; Bismarck Ramu Group (BRG); DAWN (Southern Feminist Group); Pacific Conference of Churches and the Pacific Network on Globalisation started to organize and mobilize around the issue. See updates on the role of Pacific Peoples resistance updates: www.pang.org.fj

Oil, Forests and Climate Change



Parque Nacional Yasuní, Ecuador

The importance of oil for analyses of climate change, and even the crisis of civilization (1), cannot be ignored. **Oil is the driving force behind climate change along with unequal trade, globalization and new landscapes of colonization.** It explains the metabolism of production and the market inherent to globalization.

Despite the constant denials of the oil industry and governments, we now know that **the burning of fossil fuels causes disruption to climate systems** that has directly resulted in global climate change. This certainty can be traced back to 1992, when climate and biodiversity were placed on international agendas as major threats to the environment. Numerous scientific reports, evidence gathered around the world and a widespread awareness in society place oil at the center of the causes of climate change, not only because of the accumulation of carbon dioxide in the atmosphere caused by the burning of fossil fuels, but also because of **the industrial agriculture models and the transport of merchandise and raw materials, which depend entirely on oil.**

But there is also another certainty. All phases of oil production include impacts at the local level that affect societies, their territories and nature. Exploration, drilling, extraction, transportation, and even refining and consumption cause **environmental devastation, violence and the impoverishment of local communities.** **Deforestation and fragmentation of ecosystems and habitats** have been recorded in all phases, along with **the contamination of surface and groundwater; acid rain** caused by the burn-off of gas at oil wells; and the **unbearable noise** and pollution of oil facilities, which are transported far and wide by the natural circulation flows of water and wind.

There are thus **two clear dimensions of** oil-related activities: it is the cause of climate change at the global level and it leads to environmental devastation at the local level.

However, and despite the clear warning signs at the local and global levels, the oil frontiers of exploitation and exploration have multiplied and **economies remain deeply oil-dependent**.

Globally, the so-called "peak oil" (maximum point of oil extraction) and the depletion of "cheap" sources of crude have not led to the necessary transitions. Instead, they have unleashed a race **for the control of oil resources**, no matter where they are located or the social and environmental costs involved.

Oil frontiers have extended to almost every corner of the planet, including delicate and supposedly "protected" habitats, as well as the territories of indigenous peoples, endangered ecosystems, and deep ocean waters. Oil remains an **essential factor in the expansion and globalization of capitalism - even under its guise of green capitalism -, and now old and new hegemonies compete for access**.

A perspective from the territories

It is clear that there is a global socio-ecological crisis that requires global responses and strategies. Since 1996, the Oilwatch network (2) has proposed **a moratorium on oil exploration** as a measure to address climate change. This proposal also has made it possible to identify oil consumption as the main cause of climate change and has contributed to our understanding of the local impacts caused by exploration and extraction processes.

Although climate-related catastrophes are increasingly being recorded and reported, now with the use of sophisticated technological devices, governments have done little to curb the expansion of oil frontiers. In fact, if some positive results have been achieved in this respect, they have only come about because of the pressure and resistance of local communities.

New atmospheric science, which allows us to observe the fires of the Amazon in real time as well as the behavior of winds, ocean currents and heat and cold waves, has contributed more to normalize such problems while advancing the idea of "inevitable catastrophe." This would supposedly be resolved through the use of military and/or geo-engineering interventions or new businesses, such as the payment for environmental services.

But if we look at this situation from the territories, we can understand the reasons for so much resistance to industrial oil extraction projects around the world.

Take tropical forests, for example. When a forest is exposed to some form of intervention, changes have been documented in the microclimate at up to 100 meters from the edge of operations. If you take the butterflies into account, the impact of such activity extends to 300 meters from the edge. These changes are known as **"edge effects."** The impact of extreme levels of **pollution on water, soils and air** has also been documented, as a continuum exists between forest, water and air. Tropical forests have complex water recycling systems and are actually **freshwater reserves**. Oil extraction also involves the creation of **roads and highways** to be used by heavy-duty trucks, as well as **pipelines, worker camps**, among many others. Such infrastructure is also guarded by military or security personnel, which increases the **violence** generated against communities, **especially for women and girls**.

Life in the forests is full of relationships and sensations. Relationships of interdependence and cooperation that allow people to live and nature to reproduce. Olfactory signals, vibrations, attraction to pollinators by the shape or color of flowers, are adaptations that make the forests a setting full of deep eroticism. **This is life in its broadest and most existential sense, and goes beyond issues of food and health.**

Each polluted river, each drilled oil well, each road that crosses territories to extract materials rather than providing connections among people, each enclave with oil infrastructure installed on it has been rejected or at least repudiated at the local level.

Awareness of and concern for the destruction of nature have spread throughout the world, and this has not been due just to television reports of global catastrophes. Local populations are rebelling and offering new meaning at the global level and to the global movement.

An extractivist Ecuador in crisis

Since the first oil fields were discovered in Ecuador, the country's various governments have introduced policies and measures that favor the oil industry, even at the cost of food and energy sovereignty.

The oil companies and governments of the moment, with which different models of pressure and control were established, built an imaginary of an oil-producing country and created **institutional and administrative models designed to favor the oil industry**. This has included contracts that are always beneficial to oil companies; numerous kinds of subsidies; roads and the promotion of a car culture; constant agreements and policies to maintain and increase the oil extraction activity as the axis of the Ecuadorian economy; deregulation of environmental standards, including wide-ranging measures to evade social and environmental responsibilities.

After 50 years of extraction, especially in the Amazon, the **new reserves are located in areas of difficult access and of high risk, such as the Yasuni National Park**. Moreover, the country's remaining oil reserves consist of heavy crude oils that demand high supplies of energy (which implies mega-infrastructures for electric power generation) and complex investments, such as roads, pipelines, crude oil heating stations, and refineries for this type of crude, among others. Despite this, the aim to continue with oil extraction has been maintained.

The oil legacy in terms of the devastating environmental, social and economic impacts, especially with the evidence presented during the **trial against the activities of Chevron-Texaco in Ecuador** (3), has forged a critical mass against such operations. To this was added the **campaign for the defense of Yasuní** (4) - recognized as the zone with the most biodiversity on the planet. All of this has placed nature and people on the other side of the scales as the sacrifice for oil production. Furthermore, an assessment of the past 10 years reveals how the oil industry hid a **complex web of corruption** that led to a severe economic and institutional crisis in the country.

The idea of oil as an agent that can generate jobs and income or allow the population to escape poverty has lost all credibility. That is the backdrop of recent protests in Ecuador.

In October 2019, the **Ecuadorian government decided to eliminate fuel subsidies. The advantages - and subsidies - for the oil industry itself were not affected.** On the contrary, the actions taken with respect to fuel subsidies were introduced alongside **additional measures to increase oil extraction**: these included laws to deregulate environmental controls, commitments to cover the arbitration costs of oil companies, and economic measures that maintain the central role of oil in the country's economic and production activities. The argument offered by the government was that these were measures in line with global environmental demands.

The protests have been led by indigenous peoples, who have historically played a leading role in the country's anti-extraction struggles. Today, these peoples allege that the government initiative was in fact an attack on the impoverished economies of the rural sector and the city. The mass protests forced the government **to suspend the proposed elimination of fuel subsidies** and to engage in a discussion about an economic agenda for the country.

The **Parliament of the Peoples** that has been convened by indigenous organizations has now presented its proposals: these include a series of adjustment measures along with taxes levied on the wealthiest companies and sectors of the country. Yet, they also include proposals for a shift in terms of national policies in order to recognize plurinationality, good living standards and the rights of nature. (5)

The proposals also include no further extension of the mining and oil extraction frontier and the continuation of consumer subsidies until issues related to food and energy sovereignty have been resolved. To date, those areas have been undermined by the oil industry model on which the Ecuadorian economy is based.

*Esperanza Martínez,
Acción Ecológica, Ecuador, member of the Oilwatch network*

(1) There is a general consensus that the current crisis is not only economic, environmental and about energy sources, but that it represents a complete breakdown of human civilization itself, revealing the exhaustion of a model of economic, productive and social organization that is reflected in all areas of life.

(2) Oilwatch is a network in the Global South, which promotes resistance to oil activities in the tropical zones. The network's international activities are presently coordinated in Nigeria.

(3) More information can be found on Frontpage: www.texacotoxico.net

(4) More information can be found on www.yasunidos.org

(5) *The document can be downloaded at: CONAIE, Presentation of an alternative proposal to the social economic model, <https://conaie.org/2019/10/31/propuesta-para-un-nuevo-modelo-economico-y-social/>*

The European Union Continues to Chase After Raw Materials



Since the launch of **the European Raw Materials Strategy** in 2008, the European union (EU) has affirmed and implemented each and every step of said strategy. Broadly speaking, this means **policies for better access (as direct as possible) to the Global South's raw materials**, and the promotion of **mining within the borders of Europe itself**.

Concern about climate change and the need to reduce dependence on fossil fuels—oil, coal and gas—have paradoxically kicked off an intensified race for non-energy raw materials. Technologies on the rise require an increasing amount and variety of metals and minerals; but one cannot ignore the fact that the extraction, processing, transport and subsequent manufacture of these materials is highly dependent on fossil fuels. **The purpose of “renewable energies” is supposedly decarbonization; and innovation in digitalization is discussed. But without metals and energy, none of these processes that are meant to make Europe “competitive” can take place.** Thus, so-called decarbonization, which has been launched in some sectors of the economy, is not focused on significantly reducing energy consumption, but rather on progressively increasing the percentage of “cleaner” energy sources. Meanwhile, the global impact on the climate, communities and local territories increases.

Economies That Are Determined to Keep Growing: Digitalization and the Energy Transition

Dealing with the energy transition and digitalization in the coming decades could **double or triple the demand for metals and minerals**, given that these processes drive a boundless market for raw materials. Raw materials are needed to build all kinds of infrastructure, and to manufacture electric cars and batteries, etc. Mineral resources have become the key to a growth-based economy, which constructs a complex discourse to greenwash and justify itself. In the European Union, this happens through policies, discourse and economic incentives.

To manufacture **a mobile phone, a computer or a television screen**, it takes between 40 and 60 different raw materials—such as lithium (42 g), tantalum, cobalt or antimony—which are increasingly difficult to obtain. To manufacture an **electric vehicle**, large quantities of

copper (80 kg), cobalt (10 kg), lithium (10-20 kg), nickel (30 kg) and graphite (30 kg) are needed.

According to CODELCO, the Chilean state mining company—which is one of the largest copper producers in the world—a single 1-megawatt windmill or wind turbine contains 4.4 tons of copper. China's copper consumption, for example, increased from 12% to 40% in just one decade.

The European Battery Alliance (EBA), driven by the German automobile sector, was established in 2017 to make Europe a global player in the manufacture and distribution of batteries. The battery market “could grow by 250,000 million annually, starting in 2025,” making it necessary to “accelerate and intensify coordination among strategic transnational projects throughout the supply chain.” These are the words of Maros Šefčovič, Vice President of the European Commission and head of the European Union's Energy Union.

All of this demand for raw materials means **more and more extraction** of copper, cobalt, lithium, nickel and other metals and minerals, in places such as the rainforests of Congo, the Philippines and Indonesia, or the Andean highlands of Chile, Bolivia and Argentina.

Reducing the Dependence on Emerging Economies and Conflict Minerals

At the beginning of this century, the surge in the price of raw materials and the stockpiling of some minerals by emerging economies (such as China, which retains some of the raw materials it mines for domestic consumption) created **risks related to the supply of some metals and minerals**. It began to be difficult to access them, and in some countries there was an increased concern that prices would go through the roof. For example, China controls access to rare earth elements that are needed for batteries and catalytic converters—among many other applications. As another example, Indonesia is trying to control nickel exports.

Another well-known problem are the serious conflicts that exist in places where raw materials are extracted for the aforementioned key sectors. Such is the case for **the Democratic Republic of the Congo and conflict minerals**, or blood minerals: That is, minerals that are extracted amidst bloody wars, and that go hand in hand with mafias, illegal trafficking, child labor and other atrocities that seem to put environmental pollution and destruction in the background. After intense campaigns, timid legislation has been enacted in the EU. It is aimed at demanding traceability in supply chains, and it will not come into force until 2021. This legislation is insufficient, and is limited to regulating a few raw materials: gold, tantalum, tin and tungsten—leaving out other equally conflict-ridden minerals such as cobalt.

“Critical” Raw materials and the Mining Industry's Responsibility

The European Union periodically identifies materials of economic or strategic importance for European industries—materials that may become scarce. Special attention is given to certain raw materials that are called “critical.” There are currently 27 on this list, which includes three of the four conflict minerals (cobalt, tantalum and tungsten), as well as the rare earth elements.

With this in mind, 100 billion euros from the European Commission are earmarked for

flagship projects that cover the entire supply chain, including the manufacture of technology and cars. Additionally, mining activities are being promoted within Europe.

But the fact is that **sustainable mining does not exist**. The hidden face of this “energy transition” is the **social and environmental devastation that mining entails**. Communities affected by mining-driven destruction understand that this is a very harmful paradox: that **renewable energies and technologies considered to be sustainable require tons of minerals**.

The European Union’s current policy pursues growth at any price, in order to be competitive and “save the economy.” Many of its own deposits remain unexplored due to technological reasons, or because—in theory—use of, and access to land in Europe is much more regulated and protected than in other regions. However, **the perverse idea of saving the climate by continually increasing business and extraction prevails, and this poses high risks to forests and forest communities, largely in the Global South**. Corruption and lack of transparency about mining plans and projects are also common.

European mining companies that are active in the Global South talk about “responsible mining,” which is basically the same destructive mining embellished with explanations about how they are doing local communities a favor. The most common arguments talk about the use of cutting-edge technology to prevent destruction and contamination; when in fact, this technology enables greater destruction of larger, more remote and often forested areas.

Likewise, **millions of public money flow every year from the EU’s European Investment Bank to mining projects—under the cloak of “development.”** In practice, this “development aid” facilitates mineral extraction and/or negotiation among countries and mining companies of the EU. **“Raw material diplomacy”** is applied to allow transnational companies access to raw materials; **this includes free trade agreements, and the use of World Trade Organization (WTO) tools** for conflict “resolution” in private courts. With these strategies, **EU companies and governments can justify highly violent and destructive practices**, such as what is happening in the Democratic Republic of the Congo with cobalt extraction.

With the growing demand for more raw materials from all over the world, several tons of waste are produced per person, per company and per year in the European Union. The first thing to examine and question is the economic model and lifestyle that leads to such incalculable destruction. We cannot bet on **an economy that must proceed with the savage extraction of raw materials**, with all the consequent violations of basic rights and the destruction of lifestyles and forests, mainly in the Global South.

Guadalupe Rodríguez, guadalupe@salvalaselva.org

Leader of Rainforest Rescue campaigns in Spain and Latin America, and Coordinator for the Global “Yes to Life No To Mining” Network (YLNM) for Latin America and Southern Europe.

RECOMMENDED

Cuidanderas: Guardians of the Amazon

CUIDANDERAS is a mini-series from the Urgent Action Fund for Latin America and the Caribbean (UAF-LAC). It presents stories of Latin American women defenders who are committed to caring for their territories, healing their bodies, and confronting extractive and racist models. One video shows how the Waorani women - from the province of Orellana, Ecuador - have been fighting to protect their territory in the Amazon and preserve their indigenous culture. For over 60 years, they have been resisting the threats of a petroleum industry that jeopardizes their way of life. Women leaders who belong to the Association of Waorani Women of the Ecuadorian Amazon (AMWAE- *Asociación de Mujeres Waorani de la Amazonía Ecuatoriana*) talk about what motivates their resistance, demonstrating their amazing power and inexhaustible joy. See the video in Spanish with English subtitles here: <https://youtu.be/3xTEU86tuKE>

“Sexy killers”: Coal extraction in Indonesia

Directed by Dandhy Dwi Laksono and Ucok Suparta, “Sexy Killers” is a 2019 Indonesian documentary film that portrays the coal mining industry and its relations with the Indonesian political establishment. The documentary also shows how mining companies, backed by the local and national governments, often seize people’s lands and raze forests in their pursuit of more coal. See the movie with English subtitles here: <https://www.youtube.com/watch?v=qIB7vg4l-To&t=592s>

Chocked by coal: The carbon catastrophe in Bangladesh

Published by Market Forces and 350.org, and co-published by Bangladesh Poribesh Andolan (BAPA), Transparency International Bangladesh (TIB) and Waterkeepers Bangladesh, this new publication exposes foreign-led finance as the driving force behind plans for 29 coal-fired power stations, an expansion that has seen Bangladesh leap, within just 3 years, from 12th to 6th in terms of global coal power under development. Read the publication in English here: <https://www.marketforces.org.au/bangladesh-choked-by-coal/?fbclid=IwAR09ZjyjLi1Rk6a1QzLMI2pe-ksXuE8oVoy36P6xQVivblDlaebS7Mja5t0>

The Black Snake of Peru’s Amazon: The Northern Peruvian pipeline

Since 1979, more than 100 oil spills have occurred along the North Peruvian pipeline – a mega construction, stretching a massive 1,106 km from the Amazon to the Peruvian coast, operated and owned by state company Petroperu. The large majority of the spills happened after 2008 in Loreto, home of 27 different indigenous peoples, including indigenous groups living in voluntary isolation. The recent legislative changes to the Organic Law on Hydrocarbons, expose a worrying trend: the intent to weaken environmental institutions and indigenous peoples' rights, in order to promote investment and an expansion of the petroleum industry in the country. Read the publication from the Chaikuni Institute in English and Spanish.

EN: <https://chaikuni.org/wp-content/uploads/2018/12/Black-Snake-Report-English-Amaru-Fund.pdf>

ES: <https://chaikuni.org/wp-content/uploads/2018/10/La-Serpiente-Negra-De-La-Amazon%C3%ADa-Peruana-Instituto-Chaikuni-1.pdf>

Four Years Later: International Condemnation of Brazil for Tailings Dam Break

Four years after the collapse of Samarco's tailings dam in Mariana, organizations and movements presented a case before the Inter-American Court of Human Rights. The objective is to condemn the Brazilian State for human rights violations that it committed throughout the Doce River basin, including violations of the rights to: life, due process and judicial protection, freedom of association, private and collective property, equality before the law and a decent life. Read more this unprecedented initiative in Portuguese on Global Justice's website: <http://www.global.org.br/blog/mariana-4-anos-entidades-pedem-condenacao-internacional-do-brasil-por-rompimento-de-barragem/>

Just(ice) transition is a post-extractivist transition

This recent publication from War on Want and London Mining Network highlights the immediate need for a full and rapid transition away from fossil fuels. But this transition, they argue, will not succeed, nor will it bring about justice or ecological wellbeing if it is predicated on indefinite economic growth among the world's wealthiest and persistent inequality globally. The damage that would be brought on by the scale of projected material extraction to meet the demand of growth would be deleterious to the aims of the transition. Read the publication in English: <https://londonminingnetwork.org/wp-content/uploads/2019/09/Post-Extractivist-Transition-report-2MB.pdf>

Articles of the Bulletin can be reproduced and disseminated using the following source: **Bulletin 246 of the World Rainforest Movement (WRM): "A Mineral-Intensive "Green" Energy Transition: Deforestation and Injustice in the Global South"** (<https://wrm.org.uy/>)

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