



Transition to what? Injustices of the 'low carbon' economy and 'green energy'



Copper mine in Katanga province, in DRC. Ph: Simon Dawson-Bloomberg

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The articles in this Bulletin are written by the following organizations and individuals: Justiça Ambiental! (JA!), Mozambique; the African ecofeminist alliance WoMIN; Acción Ecológica, Ecuador; Instituto Terramar, Brazil; Rainforest Rescue; and members of the WRM international secretariat in close collaboration with several allies who are part of grassroots groups in different countries.

Transition to what? Injustices of the 'low carbon' economy and 'green energy'

Our Viewpoint

The transition to a 'low-carbon' economy: a green camouflage for more destructive capitalism



Ph: Acilo - Getty Images

The mainstream responses to the climate chaos and environmental devastation are triggering a continuous expansion of the capitalist economy. The discourses about 'green,' 'low-carbon' and 'sustainable' energy are essentially camouflaging what in fact is the continuation (and expansion, in some cases) of an economic and political model that is based on large-scale extraction. A model that is based, at the same time, on oppression, exclusion, patriarchy and racism directed at communities in the global South.

This bulletin reflects on some aspects of this 'green' camouflage and aims to expose interests, actors and threats that are hidden underneath.

The word *transition*, according to the dictionary, means "a change from one state or condition to another." So, which *change* do companies and governments talk about? Is it 'changing, so everything will stay the same'? A *transition* from what? And towards what?

The proposals on the table show that the *change* is largely about substituting some of the fossil fuel sources with so-called renewable energy sources; substituting some cars powered by petrol or diesel with electric cars; digitalizing agriculture, land tenure and forest conservation operations; certifying and promoting some energies and industrial processes as 'green,' 'sustainable' or 'carbon neutral'; and, of course, offsetting enormous amounts of greenhouse gas emissions and biodiversity loss that will continue to increase. The *change* that is promoted does not even start to challenge any of the root problems of the climate and environmental crisis, such as the economic model's over-production and consumption logic. This logic is intrinsically tied to fossil fuels and a centralized and violent energy matrix.

The energy *transition*, has been largely reduced to a debate about what technology or energy source to use, rather than focused on who controls and decides upon who controls and uses which energy sources. The current energy matrix that feeds first and foremost the industrial and corporate market needs, leaves millions of people without access to energy and heavily impacts vulnerable communities. Be it fossil fuel extraction or industrial renewable energy infrastructures, their multiple effects on people and life spaces are almost always devastating.

One article of this WRM bulletin highlights the dangerous impacts of gas extraction in Cabo Delgado, Mozambique, a fuel which is categorized in the framework of the 'green transition' as a 'clean fuel'. Other articles look at the impacts of mineral extraction for the increasing demand in batteries, electric cars and data centres in Indonesia, Brazil, the DR Congo (cobalt mining) and Zimbabwe (diamond mining). Another article explore the claims of generating 'green hydrogen' by using energy generated through mega-dams, wind and solar farms, with the example of the Gran Inga project in the DR Congo. Several articles highlight the effects of large-scale wind farms, such as the case of a wind farm in the province of Ceará, Brazil and the growing logging of balsa wood in Ecuador, which is exported to China for the construction of windmills. Another article underlines the path of pollution and toxicity that hides behind the 'digital' economy. And another one highlights the use of certification as a strategy to legitimize the continuation of the very same economic model.

These articles underscore that what this transition *does not change* is the exploitative relationships and discrimination that is inherent to industrial-scale energy, irrespective of the technology used to produce this energy. The populations that co-exist and depend upon the territories sacrificed for this industrial energy matrix are carrying the heaviest burden. Industrial-scale renewable energy *does not change* the extreme violence and oppression brought about by the mega-infrastructure needed to extract and operate the energy system, nor the globalized economic model that it powers. Moreover, industrial renewable energy does not address the problem of excessive energy consumption, which is a key underlying cause of the crisis.

Where are these mega infrastructures being built? Where do all those metal minerals and other necessary materials come from? Who were displaced, violated, discriminated against? How much energy is used to build and operate such infrastructures? How much pollution and degradation will that provoke, and for whom? Where does the waste of these processes end up? Where does this 'energy' go to and where does it not reach? Which type of societies do these infrastructures enable? And which ones do they destroy?

Tariq Fancy, former chief officer for sustainable investing at BlackRock, the world's largest asset manager, affirmed that business "run for-profit machines that will operate exactly as you would expect them to do (...) Moving money to green investments doesn't mean polluters will no longer find backers. If you sell your stock in a company that has a high emissions footprint, it doesn't matter. The company still exists; the only difference is that you don't own them. The company is going to keep on going the way they were and there are 20 hedge funds who will buy that stock overnight. The market is the market." He also stressed how businesses are only investing in green assets in order for them "to not get caught up in the damage when it [climate change] hits." (1)

The reality is that the green camouflage of the so-called *transition* is to conceal that fossil fuel companies keep expanding and profiting just as before. Banks and other investors keep providing finance to the leading fossil fuel companies developing new large-scale, contested coal, oil and gas projects. (2) And the excess production and consumption trend is also set to continue. In the last 120 years, the human population grew five times (from 1.5 to 7.5 billion)

while the inputs processed in the global economy (biomass, fossil fuels, building materials, metals) grew approximately thirteen times, from 7.5 to 95 Gt per year. (3)

An urgent and drastic reduction of the industrial-scale, centralized energy production and consumption must be a priority. Hence, the discussion cannot simply be about switching from one source of energy to another or about using carbon offsets to claim that production has become 'low carbon'. The discussion should rather begin from recognizing the intrinsic exploitation and destruction embedded in the dominant economic model. It would be a necessary starting point for real *change* towards more just and respectful economies, as well as fundamentally different concepts, understanding and uses of 'energy' to come forward.

The challenge is to open up these spaces for debate from the bottom up to learn about different concepts of energy (4). This would enable a different discussion altogether about what energy is, and what energy sovereignty would entail. The so-called *transition* currently underway towards a 'low carbon' economy is only for a few and it strengthens the historical inequalities and injustices that are mostly felt by those living in and around forests, fertile lands, peat lands, rivers and seas, as well as poor urban neighbourhoods.

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Electric Vehicles: Driving Suffering and Pollution



Weda Bay, North Mollucas, Indonesia. Site for nickel mining.

Electric cars are quite similar to their traditional fuel-guzzling counterparts. Both demand huge amounts of minerals and metals, as well as a centralized energy supply. While traditional cars depend on a reliable energy supply of gasoline or diesel fuel through an extensive network of service stations, electric cars also depend on a reliable supply of electricity through a massive network of charging points for their batteries.

However, the car industry and governments want to convince us that electric and traditional fuel cars are completely different. They promote electric cars as a product of a new era, a true 'revolution'! They have made electric cars the main symbol of the 'green transition to a low carbon economy.' According to a claim made by Swedish carmaker Volvo, "It will allow us to (...) be a part of the solution when it comes to fighting climate change." (1) While a business consultancy company refers to electric cars as "a source of enormous hope for the health of the planet." (2)

The false discourse of 'global' benefits versus 'local' impacts

While corporations and governments promote electric cars as essential in the 'global' fight against climate change - with many NGOs and activist groups, especially in the Global North, endorsing this appeal, - the negative impacts of the mineral and metal ore extraction needed to produce such cars are downplayed, and referred to simply as 'local' impacts. The corporations claim, as usual, that these 'local' impacts will and can be fixed with more 'sustainable' business practices, 'corporate social responsibility' policies, 'third-party' certifications, 'forest-smart' mining operations (3), as well as increased recycling of minerals and metals.

But if something should be referred to as a 'local' phenomenon, shouldn't this be the electric car itself? Proportionally speaking, Norway has the highest share of electric car sales worldwide. With its tiny population, the country has become wealthy due to the profits reaped from oil extraction, without forgetting the ensuing contribution to climate chaos. With this oil wealth, the Norwegian government offers subsidies to its citizens to purchase electric cars. According to Prime Minister Solberg, Norway witnessed "a Tesla [a company producing

luxury electric cars] revolution in the beginning, because they were the first one with real cars, as some of my male friends would say — real cars, not just the small ones. (...) What happened was that especially (...) a family's number two car became electrical quite early because that would be used for going to work in a city and not for long-distance driving." (4) Among the many ideas and worldviews that this statement reveals, one is that electric cars will become an item of consumption, first and foremost, in the well-off neighbourhoods of wealthy countries.

And wouldn't the 'global' phenomenon be the impacts of the extraction needed for electric cars? Just consider the impacts of the many thousands of extraction sites located on just about every continent, run mostly by 'globally' organized transnational companies, attending to the demand for electric cars. And then there is the infrastructure needed to be able to run such cars. The damage caused by such extraction is destructive not only for 'local' mining areas, as the tailings of such mines contaminate much wider regions and territories, including major rivers, lakes and the oceans. There are also the global 'corridors' and all the logistics involved through which minerals, metal ore, and metals are transported from one place to another, 24 hours a day, in particular to production plants in China, where the factories of electric car companies are mainly based.

Another question is if this is really "the hope for the health of the planet." When Norway is being portrayed as a 'green' country with 'clean' air in news reports due to the electric car 'revolution', it seems as if finally, the problem of global warming is being solved. What such reports conceal, however, are the CO2 emissions that result from burning oil and coal, throughout the long and complex production chain of the many materials needed for such cars, as well as the accompanying infrastructure, including the electricity charging points. On top of this, it is also important to take into account the devastating environmental and social impacts, particularly mineral and metal ore extraction, one example being nickel mining in Indonesia.

Halmahera Island, North Mollucas: stories from the mining frontier in Indonesia

To produce electric car batteries, nickel is one of the elements that will be in high demanded in the years to come. Indonesia has the largest nickel reserves in the world, and their extraction by public and private companies has turned Indonesia into the world's largest producer. Indonesia's nickel production has dramatically increased in recent years, from 130,000 metric tons in 2015 to 760 thousand tons in 2020. (5)

One of the frontier areas for nickel extraction is the North Mollucas region. This is a unique living space for communities dependent on agriculture, fishing and the local forests. Toety Ariely, a community activist from the region, recounts her experience growing up: "I spent my childhood in Tobelo, North Halmahera. There we often played many traditional games, using the materials obtained from our forests and land. My friends and I always swam at the beach. I remember, on one particular holiday, how our family and a neighbor sailed to some islands facing Tobelo: Kakara, Tagalaya and Larangane. We encountered so many dolphins in the sea around the islands. We went swimming, snorkeling and diving. The corals in the sea were still good and healthy. There were many fish because their habitats were still thriving and provided them with food. There were vast mangroves on these islands. And when nighttime came we could see so many stars in the sky. The moon provided us with enough light. There was no artificial light from the electric lamps that so pollute the beautiful night sky. In Kao Bay, we saw hundreds of fishing boats. It was paradise for the fisher folk".

However, since the early 1990s hundreds of mining companies have set up operations in Halmahera in North Mollucas. Among them, nickel companies such as Weda Bay Nickel (WBN) which, in association with Indonesia Weda Bay Industrial Park (IWIP), formed PT IWIP, which extracts nickel in Central Halmahera, and PT ANTAM - a State-owned mining company – with mines in East Halmahera. Toety described to us what happened: “They destroyed our islands, forests, seas, and home. They kill us by destroying our Halmahera. They take so much nickel and other minerals from the womb of Halmahera Island. In return, what they give us are forestless mountains, barren lands, polluted seas, and other ecological disasters. And then, they make us fight each other in the name of ethnicity and religion. Fishermen and farmers have lost their livelihoods. We lost our living space. We lost our way of life. We do not have our marine ecosystem rich with fish anymore. We have no more fertile lands that can grow anything. We do not have the forests anymore, which gave life to every organism within them (...) The aromas of cloves, nutmeg, and copra have been replaced by the pungent smells of mercury, cyanide and pesticides. The extracted minerals and profits made cannot redeem them. They cannot buy our feelings. They cannot buy our life memories of Halmahera. We know that the people who make up the State and the corporations (corporatocracy) cannot understand all of this because our life experiences are so different from theirs. For them, destroying the forests and mining the land stands for development.”

Masri Santuly is also a community activist from the same region. About the impacts of PT IWIP, he told us the following: “Since the first mining investments, the main conflict that arose was around land. The government issued a permit to the company and unilaterally declared them to be the new landowner, evicting the community, directly or indirectly, from its own land. According to the community, the compensation offered by the company was far too low. The local government that should support the communities sided with the company. It is a tremendous cultural impact when people cannot be peasants anymore because of losing their lands and their sources of livelihood, and forced to become low-paid company workers. The communities can no longer open up new agricultural fields, they cannot catch fish and indigenous peoples like the Sawai cannot use the forest anymore, because it is now the company's territory. If they dare to disobey these rules, made by the company, they have to face the security forces of the company and also State officials. In contrast, the head of PT IWIP has all the freedom to carry out the company's activities. Now the company plans to destroy 2,650 hectares of forests to expand its open-pit mining activities, including offices and factories. This will create many more problems in the future. Furthermore, the large amounts of water needed to process nickel ore will directly impact the Lukulamo and Kobe peoples, whose lives are closely tied to the river. More sacred sites and other sites of cultural heritage with histories that go far back will be destroyed... more rivers will be contaminated, more diseases will break out. More villages will disappear. For example, they plan to use the entire village area of Lelilef as an office area and airport for PT IWIP.”

Death and destruction caused by electric car batteries, and beyond

Most reports about the transition to electric cars point out that the key ‘local’ impacts to be discussed– compared with conventional cars - is the additional demand for the car battery minerals, such as nickel, lithium and cobalt.

The Democratic Republic of Congo (DRC), the main cobalt-producing country in the world, has a mining sector the origins of which date back to colonial times, and which has been

marked since then by plunder and severe human-rights violations, including workers' deaths and child labour. (6) Cobalt is mined largely by large-scale companies, such as Glencore and China Molybdenum, but also by so-called artisanal or small-scale mining activities.

One of the numerous impacts of cobalt mining in DRC that receives too little attention in the patriarchal world order is the sexual violence and abuse against women. According to a 2020 study about sexual violence against women in the mining sector in several countries in Africa, there is evidence that in DRC, both the company and small-scale mining operations are structural drivers of such sexual violence and abuse: "Women working as large-scale mining employees are subject to violence and harassment in the workplace, often carried out by fellow employees, but effectively allowed to continue unchecked through inadequate workplace protections or outright refusal to recognise Sexual Gender Based Violence as a workplace issue. As Artisanal and Small-scale Mining (ASM) workers, women experience violence and exploitation in and around ASM sites, seemingly operationalised to maintain a gender order that concentrates resources and control with men. As community members, women are at risk for increased violence within the home, as well as in the community through the arrival of workers and security guards." (7)

Moreover, the increased extraction of other essential materials needed to produce electric cars is usually concealed, such as significant quantities of plastic, aluminium, rubber and particularly iron. After all, for capitalists, the move to electric cars does not mean producing fewer cars, on the contrary: the world's vehicle fleet is expected to increase from the present 1.42 to 2 billion vehicles in 2030 (8), fuelling the increasing global demand of all the materials needed to produce them.

Steel is one of the main car components. An average of 900 kilos of steel is needed to produce just one car. This would mean about 130 million tons of steel to produce the 145 million electric cars expected to run in and around urban centers worldwide, particularly in the Global North, by 2030. (9)

The municipality of Grão-Mogol, in the north of the Brazilian state of Minas Gerais, a semi-arid savannah region, is slated to become one of the new frontiers of iron ore extraction, and one more example of large-scale destruction and death. A project being set up by the Chinese SAM Group, intends to extract iron ore and build a pipeline to the coast for the ore's export to China. In a 2019 protest letter against the project, social movements and grassroots organisations described the initiative as "a true project of DEATH!" and continued with the following explanation: "The mining company will use 54 million cubic meters of water per year in a semi-arid region, which equals twice the annual consumption of the entire town of Montes Claros-MG [413,000 inhabitants]. To transport the raw material to China, they want to build a pipeline that takes the iron ore and also our water to the port of Ilhéus, in [the state of] Bahia. In addition, the project anticipates the construction of two tailings dams that will total 1.118 billion cubic meters - the largest such dam in Brazil! The Fundão dam, in Mariana, contained 54 million cubic meters and killed 21 people and the entire Doce River, reaching as far as the ocean." (10) The latter in reference to a tailings dam of a company owned by Vale and BHP Billiton that collapsed in 2015; this was one of two mega-disasters involving tailings dams in Minas Gerais in the past six years.

As a result of the resistance struggle against the SAM Group, environmental licensing has been suspended by a Brazilian Federal Court, interrupting, at least for now, the attempts of the Minas Gerais state government to push through the licensing of the project, reflected by

the policy of the federal government led by Bolsonaro to weaken environmental regulations. (11)

For capitalists there are no problems, only new opportunities

For the European Union (EU) political and economic block, the transition to a “green economy” represents an integral step towards fostering economic recovery post-pandemic. In 2020, EU leaders announced an increase in the EU target to cut greenhouse gas emissions from 40% to at least 55%, compared with 1990 levels, in order to make Europe “the first climate neutral continent.” (12) The plans are part of the European Green Deal adopted in 2019 that focuses on “green growth”, based on “a dramatic increase in demand for minerals and metals that the European Commission intends to meet through a large number of new mining projects – both inside and outside the EU.” (13)

As for the United States, its president Joe Biden recently launched the so-called Economic Recovery plan worth up US\$ 4 trillion. People familiar with the plan claim that the “green transition to a low-carbon economy” would underpin almost every part of it, including investments in renewable energy infrastructure, such as building electric car charging stations. (14)

For capitalists like billionaire Elon Musk, owner of electric car company Tesla, the climate chaos and Covid-19 are no particular problem, as long as they offer opportunities for profit making. Indeed, while the economic recession due to the pandemic made the global car industry shrink by 16% in 2020, a record of 3 million new electric cars were registered globally in the same year. (15)

Over in Indonesia, President Joko Widodo announced in August 2019 the construction of a new capital city in East Kalimantan, arguing that the present capital Jakarta faces too many problems such as worsening traffic, land subsidence and flooding. (16)

According to Widodo, the new capital city would be the first of its kind worldwide to only use electric vehicles. (17) Billionaire Masayoshi Son, together with Abu Dhabi’s crown prince Sheikh Mohammed bin Zayed Al Nahyan and the UK’s ex-prime minister, Tony Blair, are members of the project’s Steering Committee, which is only accountable to the Indonesian president. Son’s Japan-based Softbank has ‘offered’ to invest between US\$ 30 and 40 billion in the new capital city, although it is not clear in what exactly. Son said in an interview that it could be for “education, a research center or hospital development.” But probably far closer to the truth are his interests in what he calls “a new smart city, the newest technology, a clean city and a lot of artificial intelligence.” (18) Because for Son’s bank, the latter represents a huge opportunity for astronomic profits in the future from its current investments in companies manufacturing electric vehicles and others extracting battery minerals.

Indonesia’s new capital is also a project for which Elon Musk and his electric car industry dreams of becoming true. But for now, the project is on-hold due to the Covid-19 pandemic. If it takes off, it will lead to a tremendous scale of environmental and forest destruction in and around the roughly 200 thousand hectares of land where the project is being located

Toety Ariela from North Maluca has a message to Masayoshi Son, Elon Musk, other car producers, mining companies, and to the governments supporting them: “We do not need electric cars! If they think the electric car can be the solution to our planet from the threat of climate change, then according to us, keeping the forests and the mangroves on our island

can save the earth from all the disaster that they have created. We just need our forests, seas, beaches, nature, homes, and life to come back again. We demand that they return our life and land to how it was before they came with the disastrous mining”.

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Industrial Consumption: A largely invisible yet decisive underlying cause of the crisis



Cabo Delgado, Mozambique. Ph: JA! Mozambique

This article highlights the voices of two organizations: Justiça Ambiental! (JA!) in Mozambique, which is accompanying the struggles in Cabo Delgado against the extraction of offshore and inland gas deposits; and WoMIN, an African ecofeminist alliance that works with movements of women and communities impacted by mining activities.

The world is in the midst of a serious and manifold crisis, one that brings together concerns over environmental devastation, climate chaos, loss of biological diversity, large-scale deforestation, social inequality, food insecurity, increasing poverty levels, and the concentration of power and land into fewer hands. And the list could go on and on. Industrial consumption is a vital aspect of what is driving this crisis, that is, an underlying cause. These are causes that operate on a global scale and consist of economic, political and social components that influence each other.

It is important to remark that the term *industrial consumption* should be understood not as the individual act of consuming, but rather as a consequence of the systemic logic of the capitalist economy of ever increasing accumulation. That means that each company, in order to make more profits, needs to grow and, in many cases, produce more and promote bigger and new markets for expansion; but to produce more, a company also needs to consume more resources (particularly energy, land and water).

Massive amounts of energy, from different sources, are distributed to industries to feed their production chains. Thousands of hectares of fertile land are turned into cash crops for industrial purposes. Mines and industrial plantations around the world siphon off and pollute enormous amounts of already scarce water sources. (1) Land is increasingly under the control of fewer individuals. Each day, enormous quantities of herbicides, insecticides, fungicides and fertilizers are produced and used by tree plantation companies and other agribusiness sectors. Minerals and fossil fuels continue to be extracted and transported

across the globe via long and frequently militarized corridors of pipelines, waterways and roads. Ports, airports, highways and storage units are constantly being built and expanded to facilitate faster and cheaper connections between industries and markets. And so on. This systemic logic of ever-increasing production and consumption reinforces, at the same time, models of structural oppression, racism and patriarchy.

Industrial consumption, by and large, is now being reinforced by official and corporate initiatives trying to promote a new 'green' label for the same economic model. The targets set by companies and governments to reduce pollution, deforestation and biodiversity loss are mostly presented next to economic packages endorsing economic growth, free trade and globalized capitalism. And what does this mean? Basically, more industrial consumption and production. Likewise, the so-called 'green' or 'low carbon' economy is being promoted alongside market-based policies that pretend to offset the pollution and destruction that is intrinsic to such an economic model. In a nutshell, the so-called 'transition' aims to maintain and allow the same economic model that is actually driving the crisis to continue uninterrupted.

Gas Extraction in Mozambique

The labelling of gas as a 'clean fuel' is a case in point. We talked with friends from the organization Justiça Ambiental! (JA!), in Mozambique, where several companies have been involved in the exploration and extraction of so-called natural gas in Cabo Delgado, the northernmost province of Mozambique.

They told us the following: "Gas is not a transition fuel, and it is definitely not a clean energy. Gas is even worse than coal in the short term, due to its release of methane (*the main component of such naturally occurring gas*) into the atmosphere. Methane, a powerful greenhouse gas, traps 86 times more heat than carbon dioxide over a 20 year timeframe, turning it into the biggest threat to climate change. Gas destroys the environment and pollutes the air, sea and land, just like oil or coal. If we really want to deal with the climate crisis, and ensure a future for the youth and coming generations, we need to cut emissions drastically and stop gas, oil and coal projects".

JA! explained that Cabo Delgado was a popular tourist destination, due to its beautiful coast, forests and peoples. The majority of local inhabitants consist of peasants, small farmers and fisherfolk. In the beginning of 2000, a huge gas field was discovered, one of the biggest in the world. Transnational corporations such as Anadarko and Exxon Mobil (US), ENI (Italy), Shell (The Netherlands), Total (France), China National Petroleum Corporation (China), Kogas (South Korea), Galp (Portugal), Mitsui E&P (Japan), and many more, rushed to take part in this extraction opportunity and the gas boom, and of course make huge profits. Mozambique, they affirmed, "embarked on this new utopia of discourses of development: better life for the communities, gas as a transition energy source, and many more."

"The reality of the impacts of gas exploration is well known and documented, but the Mozambican government and many sectors of civil society decided to ignore the voices of the few of us that had the courage to rise against this illusion, pointing out the evident threat of believing that with us it would be different, that we would not fall into the resource curse", JA! denounced. "Most of the people had very high expectations as to how the gas industry would finally fuel Mozambique's development (similar to the beliefs in the coal boom era), and serve as an opportunity to repay the illegal debts contracted by our government."

So the gas rush started, for offshore exploration and the inland Liquefied Natural Gas (LNG) project. JA! described how Environmental Impact Assessments were carried out as quickly as possible, contracts were signed behind closed doors, and reallocation plans were implemented without proper consultation and without taking into account peoples' needs and requests. Even before the exploration started and way before the first projected profits started to be made, problems began to occur on the ground.

"Peasant communities were reallocated to new houses but the land promises were not fulfilled, so they are not able to grow their own food as they always did. Fisherfolk were reallocated to areas very far from the sea, even after repeatedly asking to be reallocated near the coast to allow them to continue earning their livelihoods from fishing. As Mr. Burahani, one of the fishermen, said: 'I don't know how to do anything other than fishing', so this has made communities dependent on the purchase of food products, at a time when the cost of basic products is constantly increasing."

To make things worse, at the beginning of 2017 attacks by insurgents started to take place. "The real motivations that led to the outbreak of this conflict, where horrible crimes are being committed, are still unknown, but their connection to the gas exploration is undeniable", they explained. "Government forces and mercenaries hired to counter the insurgency have also been involved in major human rights violations, and the militarization and conflict in the area, alongside the injustices related to the gas projects, have been destroying peoples' lives. Journalists, community activists and civil society organisations working on the ground are being attacked, prevented to do their work, or just simply disappearing without a trace. Once a peaceful province, Cabo Delgado is now a province at war, with more than 3,000 dead and 600,000 internally displaced people, and hundreds of thousands facing famine, diseases and violence."

Mining in Africa

The so-called 'green' economy is pushing for the electrification and digitalization of many commodities and industries, from electric cars to the use of 'block chain' digital technology for the agricultural industry. This requires a vast amount of mineral resources, besides the usual ones that are needed for the current level of consumption. We talked with our friends from WoMIN to hear more about the situations experienced in different countries in Africa.

They told us the following: "It is critical to challenge the assumptions of the 'green' economy when many of the costs, many of them violent, are being borne by communities in the Global South where unsustainable, unfettered, and destructive large-scale extractivism is taking place. Building renewable energy systems and technologies that would make a 'green' economy possible (solar panels, batteries etc.) will increase demand for rare earth minerals and metals – many of which can be sourced in high volumes in African countries".

As an example, they mentioned the case of the Democratic Republic of Congo (DRC), where roughly half the world's cobalt reserves are located. (2) The levels of pollution and violence faced by the communities where this extraction is taking place, is already high, with the wellbeing and security of millions of people and the planet sacrificed in favour of profits for a select few. (3) "It cannot be a 'green' economy for a privileged few in the Global North while Black and Brown communities across the Global South, along with their lands and territories, are paying such a terrible price," WoMin stated.

Furthermore, they also highlighted the following: “In almost every context in which large-scale resource extraction is taking place across the continent, there are high levels of violence that impact the communities that live there, and impact women in particular ways. Environmental defenders and communities who resist these mining projects also face high levels of repression for taking a stand”.

One example is Marange in Zimbabwe, which has been a battlefield for the control of the territory’s vast diamond wealth for the past 15 years. (4) “At that time, the traditional communities residing in Marange were invaded by tens of thousands of artisanal miners, merchants and dealers, who took control of their land, flouted traditional practices, and perpetrated rape, murder and armed robbery upon each other and the local communities”, outlined WoMin.

In November 2008, the Zimbabwe National Army was deployed to drive out the artisanal miners and dealers as the state moved in to take full control over the lucrative diamond fields. There was a massacre of artisanal miners and villagers, and hundreds of villagers fled their traditional homes. “Over 200 miners were gunned down within five weeks, and it is estimated that hundreds of women were raped, including being gang raped by both the soldiers and artisanal miners. Rape and sexual violence in many forms have often been used as a way of controlling and repressing women and communities in mining areas”, they denounced.

To highlight these voices, the Rise Against Repression (5) platform was created, which documents the repression and violence that environmental defenders and communities face in mining and other extractive sites across the African continent, with a strong focus on women.

WoMin explained that many communities in mining areas also face pollution and the degradation of their lands and territories, upon which they depend for their lives and livelihoods. In Bargny, Senegal, where women fish processors have been resisting destructive so-called development projects for over a decade (6) – the pollution from the Sendou coal-fired power plant caused immense harm to the surrounding environment and community. Sponsored by the African Development Bank (AfDB), the West African Development Bank (BOAD), the Netherlands Development Bank (FMO) and the private Compagnie Bancaire de l’Afrique de l’Ouest (CBAO) – the Sendou project posed a huge threat to the community where fishing and fish processing by women are important sources of livelihood. In January 2019, Sendou I released wastewater into the women’s fish transformation site at Khelcom, which caused significant loss and damage to their harvest of dried fish. “Given that women do the work of fish processing and selling, and they are also in charge of the agricultural activities, they have also been the hardest hit”, they warned.

A transition to what?

It becomes imperative to expose the dangers that hide under the transition to a ‘green’ or ‘low carbon’ economy. The interests at play are clear and industrial consumption is set to continue expanding. As our friends from WoMIN told us: “Any moves toward a just ‘transition’ starts with the people – namely the people who are most directly affected and who have carried the heaviest cost of the climate crisis and the current extractives-driven, neo-liberal economic paradigm that informs so-called ‘development’ and ‘progress.’”

Such a systemic change, in which the autonomy of those communities living with and by their territories is respected, needs imagining from below. This includes an active process of listening and understanding as to where the changes need to come from; an imagining of a transition from below. As our friends from JA! clearly stated: “The fight is for radical and systemic changes in our societies in order to dismantle the current system that is oppressing and exploiting nature and the peoples of the world, towards a world that is socially and economically just. The fundamental pillars for the needed changes should be justice, equity and the sustainable use of our commons.”

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(2) Cobalt reserves worldwide as of 2020, by country

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(3) Raconteur, 2019, Cobalt: the dark side of a clean future

<https://www.raconteur.net/corporate-social-responsibility/cobalt-mining-human-rights/>

(4) Rise Against Repression, The women of chiadzwa

<https://riseagainstrepression.org/tribute-wall/the-women-of-chiadzwa/>

(5) Rise Against Repression, <https://riseagainstrepression.org/>

(6) Womin, Women Stand their Ground against BIG Coal, <https://womin.africa/women-stand-their-ground-against-big-coal/> ; Watch a short video on the Bargny struggle here. <https://www.youtube.com/watch?v=-roQUTvmQsM>

The green paradoxes of an Amazonian country



Ph: Shapiom Noningo/Mongabay

Balsa wood extraction in Ecuador for windmills

It was the first year since the start of the pandemic, and the balsa industry had been already installed for a few months in Ecuador. But the balsa fever had only just begun. When balsa tree plantations had been cut down, natural balsa tree populations in every corner of the country started to be affected. Their ultimate destination is China.

It all started when the Chinese government decided to eliminate taxes for the alternative energy industry. Balsa wood is an important input in wind power generator turbines, because it has great resistance and is the lightest of commercial woods—even lighter than cork wood.

Between January and November 2020, Ecuador's timber industry exports reached US \$784 million, which was 53% higher than in 2019. Almost 70% of Ecuadorian balsa wood exports go to wind energy in China, and balsa has become Ecuador's third largest export to the Chinese market, after shrimp and bananas. Ecuador is the largest balsa wood exporter in the world, accounting for 90% of the global market.

Although there are established balsa tree plantations, the extremely high Chinese demand has pushed balsa loggers to seek out natural sources, i.e. forests. Meanwhile, the balsa plantation frontier is expanding onto areas with natural vegetation and peasant farms, areas heretofore dedicated to local food sovereignty. This has increased deforestation not only of the balsa tree, but also of other woods that are sold illegally.

Roads and rivers in the Amazon are now filled with mobile sawmills that collect balsa trees and cut them into pieces of around 1.3 meters. Balsa logs are stacked one on top of the other to await the truck that will transport them to a logging company's collection center in the coastal region. Without a care as to where it comes from, these companies receive as much material as possible for export, and they package and ship it to China. Within the production chain, these companies are only responsible for receiving and later selling the product internationally, and they keep most of the economic profits. In this way, these companies are not held accountable at all for their role in the environmental and social impacts caused by this industry.

In the communities, workers earn minimum wage, if that. Most workers cut, stack and load logs. They are indigenous and poor peasants from the territories where balsa is extracted, and they earn 10 or 15 dollars a day. Many working men go to the city on weekends with their small earnings, and they spend it on alcohol. The women who cook for the workers feed their families with what they earn. Community dynamics have changed, and yet another situation of dependency has been introduced, affecting the autonomy of various Ecuadorian communities.

Intermediaries are external agents who do not represent, but respond to, logging companies. They are the ones who typically negotiate the logging of balsa with community leaders, offering to cover basic needs such as electricity, schools and even medical centers—rights that should be guaranteed by the State. Some leaders accept this, thinking about the needs of the people, without evaluating the problems they will face in the short and long term. Negotiations tend to be fast, as the intermediaries know what they want and how much they can offer; and leaders know what they need.

Conflicts within communities are, unfortunately, the order of the day. Fights between relatives—because the tree that was cut down was on the wrong side of the boundary—and accusations against community presidents for taking the balsa money are all a result of balsa logging. Timber extraction is breaking community ties and destroying cultural traditions. Community members spend all their time harvesting wood. They no longer attend assemblies, and they are abandoning the work of community social care.

Waste is dumped from sawmills into the rivers, and when the rivers flood they carry everything downstream. Rivers that used to transport just a few canoes between communities with people and food now look like traffic-laden streets in rush hour in Quito, the

capital. The gasoline mixed with oil ends up in the water, affecting subsistence fishing; yet there are no consequences whatsoever for the traders.

Cutting down a large balsa tree affects ecosystems. Its canopy shelters plants that now dry up under the scorching sun of the equator. Birds that feed on balsa flowers no longer sing as they used to; parrots have now gone in search of new homes; *tapirs* and *sajinos* (wild boar of the jungle) are now exposed, leading to an increase in illegal hunting.

Stories like this are heard in practically every region of the country where there are tropical and subtropical forests. These areas include the Chocó forests, including the Andean Chocó; the few spots of natural forest that remain in various coastal regions; and the foothills of the mountain ridges. In eastern Manabí, balsa logging caused large landslides in an area that conserves one of the last tropical forests in the province, causing serious material damage in the community. Land for balsa tree planting is also being aggressively purchased, which is increasing both territorial capital gains (increase in economic value) and instability in living conditions.

Since wild balsa is being depleted in Ecuador, balsa loggers are venturing into the tropical forests of neighboring countries. Testimony from a member of social organizations from northern Esmeraldas tells us that balsa loggers bring wood from the Colombian Chocó through clandestine passages, passing through the country without going through any checkpoints until they reach Ecuadorian waters. They say that the timber enters the country by way of the Santiago river, one of the large rivers that flows into the Pacific; on this river, one can see outboard motorboats loaded with balsa logs. The boats first load up the logs in the neighboring country and then enter Ecuador, avoiding checkpoints until they reach the river where they supply different ports located provisionally along the river banks. Here they load trucks that transport the balsa to export companies at the main ports.

Similarly, Ecuadorian balsa loggers take wood from territories in the Morona River basin in the Amazonian rainforest of Loreto, Peru. This is affecting the Autonomous Territorial Government of the Wampís Nation and has caused intense conflicts. The Wampís Governor in Peru, Wrays Pérez (Pamuk Gtanw), confirmed this when he denounced that more than 1.5 million feet of balsa wood has been removed since January 2020 (1). More than a dozen sawmills are operating in the region along the Santiago River. Every day, more than 10 boats with a capacity of 20-40 tons carry illegal timber to the Ecuadorian border.

Traditional logging companies regret that they have not benefited from this balsa fever, and they have started to devise strategies to get into the business—such as expanding the area of balsa plantations and initiating negotiations directly with China.

Meanwhile, what is going on in China?

Since the 2000s, China has seen an increase in energy consumption, which has kept pace with the accelerated industrialization of the country. Starting in 2010, China planned to shift its energy matrix towards energy generation from renewable sources, economically incentivizing the production of “alternative” energy with serious “collateral damage” in Amazonian countries. In 2020, in spite of the Covid-19 pandemic, China built more wind farms than the rest of the world combined, reaching a record number of installations that year.

The executive director himself of Ecuador's Wood Industry Association (AIMA, by its Spanish acronym), Christian Riofrío, admitted that: "It does not cease to be a paradox that clean energy generation is tied to pressure on the native Amazonian forest. When there is great demand and high prices, this fuels the black market" (2). For Riofrío, the problem lies in the illegality of the black market; but he completely ignores the social and environmental impacts caused by this industry.

What is ironic is that Chinese president Xi Jinping laid out new objectives in December 2020 that will be incorporated into his proposal for the Paris Agreement. China plans to reach peak emissions in 2030, and to have Net-Zero Emissions by 2060. To this end, it plans to increase the installed capacity of wind and solar energy to 1,200 GW by 2030. If this were only using wind power, China would need to build one million wind turbines. The concrete proposals to achieve these objectives will surely cause an even greater violation of the rights of people and nature, within China's own territory and beyond—as has already been verified with balsa logging in Ecuador.

While the growth of wind farms in China is exponential, the United States and Europe are not far behind. US president Joe Biden recently announced the deployment of 30 gigawatts of offshore wind energy (over marine territory) by 2030; meanwhile European Union countries announced they will reach 340 gigawatts of wind generation by 2030. General Electric remains the largest wind turbine manufacturer in the world, followed closely by China's Xinjiang Goldwind; meanwhile Danish company Vestas lags behind.

The invasion of millions of wind turbines in China, Europe and the United States will mean the massive extraction of metals in many parts of the world in order to manufacture them. It will also mean the brutal felling of balsa trees. What's more, we must remember that these apparatuses do not last more than 25 years, because their parts deteriorate over time. This means that before 2050, they will have to redo everything again.

But there is also resistance

But not everything is for sale in the rainforest. There are communities that have opposed the entry of companies and intermediaries. They know that balsa wood is an essential part of the balance of the rainforest. To the Sapara Nation of Ecuador (NASE, by its Spanish acronym), the balsa tree is a natural protection against spirits that travel along the rivers, and it allows life to exist in the communities. Knowing this, they have cogently spoken out against the devastating intentions of the companies—companies which on several occasions have tried to convince leaders to promote balsa logging within their territory. Some Kichwa and Achuar communities in the Southern Ecuadorian Amazon also hold a similar vision of balsa.

Once again, a power claiming to be generating clean energy is stealing the scaffolding of this small Amazonian country's forests. These paradoxes of the so-called "green economy" ruin the natural stability of the forests and the jungle.

Acción Ecológica, Ecuador

<https://www.accioneologica.org/>

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Renewable energies and ‘green hydrogen’: Renewing destruction?



Congo River. Ph: Ollivier Girard - CIFOR

In a 2020 statement from the International Hydropower Association, the world’s largest hydropower corporations are calling on governments for “fast-track planning approvals” to ensure new large dams construction can commence as soon as possible. (1) The hydro energy industry is also lobbying to make sure large dams are seen as essential to the economic recovery from the Covid-19 pandemic and to “the transition to net-zero carbon economies” (2), casting devastating projects as both ‘clean’ and central to a ‘green energy transition’.

Industrial-scale renewable energy, including hydro, wind and solar, is positioned as a solution to our ever-increasing energy consumption. On top of this, the production of the so-called ‘green hydrogen,’ adds another layer of injustices related to this mega infrastructure. Yet, the replacement of the energy source by no means addresses the real problem posed by the excessive levels of energy consumption, which are driven by accumulative economic growth. This also leaves unchallenged the violence intrinsic to the societies that such energy powers. (3)

Many corporate and state actors are pushing for increasing their capacity to produce and use hydrogen as part of the ‘green’ recovery plans from the economic crisis caused by the pandemic. It is becoming central in the ‘green transition’ debates. The German government has announced plans to spend 9 billion euros (USD10.7 billion dollars) supporting its domestic hydrogen industry. (4) Likewise, the European Commission has started to promote hydrogen as a way of cutting carbon emissions and reaching its Green Deal climate targets. The EU plans to scale up ‘renewable hydrogen’ projects and invest a cumulative amount of 470 billion euros (USD740 billion dollars) by 2050. (5) Moreover, US Energy Secretary, Jennifer Granholm, said that hydrogen “will help decarbonize high-polluting heavy-duty and industrial sectors [in the United States] (...) and realizing a net-zero economy by 2050.” (6)

What is 'green hydrogen'?

Typically, 'green hydrogen' or 'renewable hydrogen' refers to the generation of hydrogen energy without using fossil fuels. The most common technique is to extract hydrogen from water, which is two parts hydrogen and one part oxygen (H₂O). A process called electrolysis splits the water molecule into its two constituent elements. Thus, to produce 'green hydrogen' one needs water, an electrolyzer and plentiful supplies of electricity. If the electricity comes from renewable sources, such as wind, solar or hydro, then the hydrogen is categorized as 'green.' Hydrogen can then be used in roughly two ways. It can be burnt to produce heat or fed into a fuel cell to make electricity.

Storing and transporting the highly flammable gas is not easy; it takes up a lot of space. Because of this, the bulk transport of 'green hydrogen' requires dedicated pipelines, pressurizing the gas, or cooling it to a liquid. Additionally, it is crucial to highlight that producing 'green hydrogen' can require as much as nine kilograms of high-purity water per kilogram of hydrogen. (7) This might dispute the resource with other needs and uses of clean water, which is increasingly becoming scarce.

Major oil companies like Shell and BP have already announced investments in the production of 'green hydrogen.' (8) And several major 'green hydrogen' projects are already being planned or under development by the governments of Canada, China, Germany, Japan, Norway, Portugal, the United States, UK, The Netherlands, Australia, and others.

Nowadays, producing 'green hydrogen' has turned into one more justification by which vested interests fast-track the construction of large-scale renewable energy infrastructure. The harmful impacts for communities and the life spaces that get destroyed by the construction of this infrastructure remain largely hidden.

This is the case of The Gran Inga project in the Democratic Republic of Congo (DRC), with the controversial mega dam 'Inga 3' currently threatening communities living with and along the Congo River.

On June 15, 2021, DRC's government announced that Australian Fortescue Metals Group would develop The Grand Inga hydroelectric power project. Fortescue is the world's fourth-largest iron ore miner, and has set a plan to become 'carbon neutral' by 2030; 10 years earlier than its previous target. Fortescue Future Industries (FFI), a wholly-owned subsidiary of Fortescue, is advancing projects to build large-scale renewable energy and 'green hydrogen' production capacity.

Andrew Forrest, chairman of Fortescue, said in a press release in April 2021, "Our aim is to provide the two 'missing links' in the climate change battle, to create both the demand and the supply of green hydrogen. Due to its high-energy performance and environmental neutrality, green hydrogen and direct green electricity has the potential to eliminate fossil fuels from supply chains. Once established, these advances will also substantially reduce Fortescue's operating costs." (9)

The Grand Inga in DRC: a chain of dispossessions

The Grand Inga refers to a series of dams proposed for the lower Congo River. This is the world's second largest river in terms of flow rate, after the Amazon, and the second longest

river in Africa, after the Nile River. The plan is to construct The Grand Inga in seven phases. Inga 1 and Inga 2 were commissioned in 1972 and 1982 respectively. Inga 3 is the next in line, a project filled with controversies and criticisms. The Inga 3 site is on the world's largest waterfall by volume, the Inga Falls, which consist of a series of falls and rapids that drop in elevation via small rapids.

It is a fact that people living in DRC need power: more than 90% of the population lack access to the electricity grid. DRC's capital, Kinshasa, has over 10 million inhabitants and less than 30% of them have access to electricity. Despite this huge energy divide, a series of high-voltage transmission lines would tap the proposed Inga 3 mega dam power and transport the electricity to industrial and urban centres far away. These transmission lines will not bring power to the Congolese people. (10)

Inga 1 and Inga 2 forcibly displaced communities without compensation, resettled them into camps, deteriorating their standards of living, and negatively affecting their livelihoods. Many still live in 'Camp Kinshasa' without basic services such as adequate water and sanitation. Not only will the construction of Inga 3 deepen poverty-induced 'development', generational debt and human rights violations, but also the mega dam will adversely affect DRC's freshwater ecosystems. Inga 3 would flood the Bundi Valley, affecting agricultural lands and diverse territories. The valley is also a cultural cradle, home to cemeteries, sacred sites, including those for ancestral rites practices. The effect of a reduced flow in the river may cause loss of biodiversity and a shift in the dominant species. The flooded area may also create an environment that is conducive for the breeding of water-borne vectors such as malaria via the malanquin mosquito. The dam might, moreover, cause huge methane emissions, contributing to global warming. (11) The director of the Agency for the Development and Promotion of The Grand Inga, Bruno Kapandji, estimates that 37,000 people would be displaced by Inga 3. (12)

The Grand Inga project, including the Inga 3 dam, was already conceded to a Chinese consortium that includes China Three Gorges Corporation and a Spanish consortium that includes AEE Power. The deal was signed in 2018, but, due to concerns over financial viability, construction has not yet begun. DRC's top infrastructure advisor, Alexy Kayembe De Bampende, said in June 2021 that The Grand Inga project will now be led by Fortescue and that the "Chinese [and Spanish] company are welcome to join Fortescue." (13) Fortescue's chairman has declared that the company will use the energy to produce hydrogen to export around the world. (14)

'Green hydrogen': a façade for further pollution and dispossession

The revival of the incredible huge Grand Inga project – if built, it would be the world's largest hydropower scheme – would be ignoring the long resistance of communities already affected by Inga 1 and 2 and those that would be affected by Inga 3. (15) It would be a direct violation against the Congo River and the communities that co-exist with and depend on it.

The push and promotion of 'green hydrogen' as the 'fuel of the future,' and the path towards a 'hydrogen economy,' is an alarm for communities around the world fighting against mega infrastructure for renewable energy. This push is also a clear signal of how the current unequal and unjust energy matrix will remain untouched under the so-called 'green economy.'

Fortescue's 'green hydrogen' will not deliver energy to the 90% of Congolese that lack it. Besides, the impacts and pollution of the construction of the mega dam as well as the liquefaction facilities and the transport of the fuel to consumers and industries in mostly the global North, remain concealed.

And DRC is not the only country targeted by Fortescue. The company is planning to build a 'green hydrogen' plant in the Rio de Janeiro state, Brazil, which would be powered by solar and wind energy projects. Similarly, in November 2020, the company announced it was considering a 250-MW 'green hydrogen' plant in Tasmania. (16) The company is also venturing to Indonesia and Papua New Guinea to find hydropower resources. (17) Fortescue even pretends to label the steel industry as 'green steel' by providing 'green hydrogen' as fuel for the industry. (18)

Other companies and governments are also advancing with 'green hydrogen' projects around the world. Morocco signed in 2020 a Memorandum of Understanding with Germany over potential production of this fuel. (19) Enegix Energy signed a Memorandum of Understanding with the government of the Brazilian state of Ceará to build the world's largest 'green hydrogen' plant, which will be powered by large wind projects (see article in this bulletin on the local impacts in Ceará). (20) Similarly, in Chile, HIF, a consortium that includes Dutch-AME, Italian-Enel Green Power, German-Porsche, German-Siemens Energy and the collaboration of the Chilean national energy company Enap, has announced the first 'green hydrogen' project in the country, powered by wind mills. (21)

Just energy sovereignty!

The statement from the International Hydropower Association mentioned at the beginning of this article is definitely a hard pill to swallow for the tens of millions of people whose lives and livelihoods have been directly violated by the construction of mega dams around the world, as in the cases of Inga 1 and Inga 2.

Industrial scale renewable energy infrastructure and the 'green hydrogen' industries, as well as their financial backers, conceal the devastating social effects of such large scale infrastructure and are silent about the extreme impacts to life spaces, biodiversity, freshwater sources, forests, fertile land and many others.

Instead of fast-tracking more destruction and pollution, governments must prioritize a localized, off-grid and just energy access that respects river ecosystems, life spaces and its communities. The tactic of labelling 'green hydrogen' as the 'fuel of the future' is a desperate attempt of keeping the increasing production and consumption levels untouched, along with the inequalities that this triggers. Discrimination, racism and exploitation are reinforced by the imposition of this energy matrix and mega infrastructures, which in turn feeds an unjust energy system that mainly benefits big industries.

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Wind energy on the Northeast Brazilian coast and the contradictions between ‘clean energy’, injustices and environmental racism

Energy production in the face of demand to sustain, develop and expand predominant urban-industrial-capitalist ways of life in so-called global society, does not take place without high levels of interference on a daily basis in nature and the environment, as well as in multiple societies and peoples, their territories and experiences. Regardless of the source of energy and of the technology used to generate it, in these dominant models, energy ventures produce countless socio-environmental conflicts, risks and damage in contexts of deep-seated inequalities.



Ph: Brasil de Fato

It just so happens that in Brazil and Latin America, the dynamics of demand for, access to and use of land, water and territory, as well as the ecological and socio-environmental harm that results from them, carry the inheritance of historical facts. An example of this is the expropriation of others' territories and the setting up of a political, economic, legal, military and religious power based on the supremacy of the colonizer, white men and women, over indigenous and black people. In these processes, violence, subjugation and violation of bodies, of history and of dignity, were instituted as methods. To this day, despite all the achievements in terms of winning rights, these inheritances are encrusted in the dominant political, economic and socio-cultural powers. In the current socio-environmental conflicts, such inheritances manifest themselves in the naturalization of white privileges over state policies and in the relations of the state and the private sector with each other and with black populations, indigenous peoples, riverine peoples, fisherfolk, *quilombola* communities and others. These do not necessarily have as a reference the consumerist and energy-intensive models of living and organizing life.

In these circumstances, even if the source for producing energy via the wind industry in Brazil, and particularly in the Northeast Region, is considered technologically and ecologically cleaner, the concrete way in which wind farms are implemented is marked by the productivist/consumerist logic. According to the values of this logic, the provision of human needs is only viable in the form of hyper-exploitation and profits at the expense of the environment, of territories and their peoples. And this does not take place without being cut across by structural racism and its expressions in the environmental reality and in the democratic fragilities involved in ensuring the rights of peoples.

Energy and violations of rights in the land of winds

Studies of the sector indicate that energy production originating in the wind industry accounts for some 10% of the Brazilian energy matrix today (2021). The Northeast is the most potent region of the country in terms of “wind deposits”. Currently, there exist around 599 farms and 7285 towers already set up in Northeastern territories, amounting to approximately 16GW. According to the industry, this figure is equivalent to 80% of Brazil's total wind energy

capacity,(1) and the trend is to continue growing on the basis of auctions already held to contract electrical energy.

Starting above all in 2002 with the advent of the Program of Incentives to Alternative Energy Sources – PROINFA, renewable energy sectors, chiefly those linked to wind energy, have been gaining ground vis-à-vis federal politics, regulatory frameworks, investments, subsidies and implementation mechanisms, like public auctions specifically for renewables held by the Ministry of Mines and Energy. Brazil – mainly the Northeast – has been standing out as the top producer of wind energy in Latin America, and is among the countries with the most wind energy capacity in the world. In states like Ceará, Rio Grande do Norte, Paraíba, Pernambuco, Bahia and Piauí, wind farms occupy coastal areas above all, but are expanding to mountain areas and the hinterland.

However, like other energy production chains, there are innumerable violations of rights enmeshed in these processes. For example, even though Brazil is a signatory of Convention 169 of the International Labour Organization, traditional communities' right to be consulted prior to the establishment of mega-projects on their territories is not guaranteed. In general, the community is the last to be informed, and nearly always by means of public hearings prepared like a bureaucratic checklist, in order to present fragile impact studies. On the other hand, the projects chosen via the auctions do not give due consideration to the socio-environmental situation or to actual impacts, a fact amply denounced by communities already affected. Their denouncements are normally treated as unfounded complaints that are manageable with individual negotiations, promises and charitable projects.

However, despite the political and economic institutional decisions, where community participation is insufficiently taken into account, the environmental interference gradually becomes more visible in the process of wind farm implementation. In Quilombo do Cumbe (Aracati/East Coast of Ceará), for instance, the opening up of roads to transport cargo, materials and heavy equipment, changed the community's daily life, brought about respiratory illnesses owing to the intense dust constantly raised, and damaged the structure of people's homes. At the fishing community of Xavier (Camocim/West Coast of Ceará), lagoons were filled in and the community was confined to the area of the company. In both communities there were restrictions placed on access to areas of artisanal fishing.

Furthermore, jobs get created only during the construction work. These are geared only to men, and overwhelmingly men from outside the local communities. Major ventures mean the arrival of many men in the territories, which activates gender vulnerabilities impacting women and children. There are increased risks of sexual violence and exploitation, unwanted pregnancies and a population of young single mothers, in a context of losses of territory, work and prospects.

Within the sphere of legislation, there is an underestimation of the ecological and social effects of wind energy, considered a low impact and low carbon source. However, wind farms privatize large tracts of land, fencing off local communities' territories and causing direct harm, like the loss of access to fishing and farming areas. In the Northeastern Coastal Zone, fields of dunes and freshwater sources for lagoons between dunes are destroyed, thus impacting the flow of water tables and community agricultural activities. But while there are incentives of different kinds, including exclusive business sector participation in policy-making, there remains an absence of recognition of the populations that have lived there

from time immemorial. This sharpens the very serious land-based conflicts and historical difficulties in ensuring territorial safety for traditional peoples and communities.

Just like in various other land and environmental conflicts caused by large-scale development projects, in the case of the wind energy industry, these communities are also affected by scandalous deficits of democratic representation. On a daily basis, they need to do battle with whiteness and with the racist patriarchy that predominates in the justice system and in the legislative and executive branches of government to make sure they remain on their land. This notwithstanding, the arrival of such projects habitually generates inter-community conflicts in the face of the promises of improvements in the community's life that would compensate the socio-environmental and ecological damage. Disputes over narratives and meanings weaken community representatives, who suffer persecution and threats. Often, it is necessary to activate protective public policies. This situation has been greatly worsened by the pandemic, as well as by democracy-related defeats and the political chaos into which the elites have plunged the country since 2014. This has resulted in the rise — also in the territories — of extremist forces, anti-rights, anti-environmentalism and openly racist, misogynous and hetero-cis-normative.

Lastly, the theme of energy production needs to recognize environmental injustices and racism. Otherwise, the risks and energy safety and sustainability may be reduced to technological and market-based solutions, which accumulate discourses and intentions of meeting human needs with “green attention”, but are indifferent to the injustices and inequalities that cut through environmental reality and democracy.

They disregard, above all, the fact that human needs cry out for structural changes to the predominant model of economic and environmental exploitation and of power relations, and for the de-naturalization of disrespect for peoples in their diversity and for their rights. This also implies recognizing that the knowledge and experience of these populations represent enormous wealth and potentials for tackling, coexisting with and overcoming the environmental crises of our time.

Every type of large-scale energy production causes tremendous impacts — and the impacts are not only specific or localized. Rather, they affect every dimension and scale, from the implementation of these mega-ventures to the industrial sectors supplied by this energy production. In these dominant models of energy production and consumption, the centralization of the energy matrix and the concentration of decision-making power remain, and with all the marks of inequalities, even if the source of energy has changed. On the other hand, it is possible to valorize community-level experiences, experiences of more decentralized energy production, with a smaller scale and more autonomous alternatives and solutions to supply homes, communities and towns, using technologies based on renewable sources, with more popular participation and more attention paid to rights to water, land, territory and even energy.

Cris Faustino, Internal Processes Coordinator of Instituto Terramar, and Beatriz Fernandes, Field Aide of Instituto Terramar, Brazil.

(1) Data made available at <https://www.canalenergia.com.br/noticias/53163929/energia-eolica-chega-a-18-gw-de-capacidade-instalada-no-brasil> and http://abeeolica.org.br/wp-content/uploads/2021/06/PT_Boletim-Anual-de-Gera%C3%A7%C3%A3o_2020.pdf. Accessed on June 14, 2021.

The 'Digital Economy': Cementing the Expansion of Extraction and Pollution



Google data centre. Ph: Green Queen

The idea that the economy is increasingly turning 'digital' usually follows the assumption that information technologies (from computers and drones to blockchains (1) and recognition machines) would be the focus of future economic activity. The 'digital economy' is usually referred to as one that has a relatively low impact on the environment, one in which material resources are largely unnecessary. But what (and who) is being hidden by such images of an almost ethereal and cleaner economy?

Apart from the alarming level of corporate concentration that accompanies the digitalisation of the economy, the various environmental and social impacts of information technology are becoming more evident. These include not only the toxic by-products associated with its production, but also the pollution caused by the massive amounts of energy and water required by data centres such as those of Google and Facebook. When one looks at the immense web of wires, cables, towers, generators and other physical equipment that underpins the apparently virtual realm of this so-called 'cyberspace', the 'digital' realm does not seem to be far removed from the more traditional forms of industrial manufacturing. (2)

The huge additional quantities of electricity required to run enormous libraries of 'big data' through super-fast computers in giant data centres places even more pressure on forest lands that contain sources of hydropower or fossil fuels. These new massive demands on energy also put yet more stress on climate stability. These data centres are often referred to as data warehouses, data farms, server farms, or more recently, 'the cloud,' a more convenient name which camouflages these massive operations behind the immaterial image of a 'cloud.' The combined power usage of giant tech firms such as Amazon, Google, Microsoft, Facebook and Apple is more than 45 terawatt-hours a year, which is about as much energy as is annually used by the entire country of New Zealand. That amount is projected to grow, as the rise of artificial intelligence and machine learning requires more computing power. (3) If the 'cloud' were a country, it would be the sixth largest consumer of electricity on the planet. And of course, where energy is used, heat is generated. Cooling even a medium-sized server farm can require as much as 360,000 gallons (1.36 million

litres) of clean, chilled water a day; a single semiconductor fabrication facility requires millions of litres. Dwindling water availability represent one of the many unanticipated consequences the implications of which are only just beginning to be realised. (4)

Digitalisation impacts all aspects of society. The manufacture of digital devices requires the extraction of massive amounts of mineral resources. Every computer depends on hundreds of energy-intensive, toxic waste-emitting, international supply chains, and frequently hazardous conditions for the workers involved. Meanwhile the 'online' retailer Amazon, owns and operates one of the largest warehouse, transportation, and logistics operations in the world.

When considering the various layers in the production, operation and consumption chains of the 'digital economy', it becomes evident that it is far from being 'clean' and its impacts on the environment and climate, and thus on the populations that depend upon those life spaces, are immense. It is a global phenomenon characterised by stories of extraction, the destruction of life spaces, precarious working conditions, pollution, environmental degradation, the displacement of communities, racism and oppression.

Digitalising land and agriculture

Sophisticated attempts to digitise agriculture tend to expand the range and scope of corporate resource extraction and state efforts to survey and harass forest-dependent peoples and peasant farmers. Big finance and technology companies want farming to go 'online.' A combination of drones, 5G technology, remote sensing and satellites are being established as the backbone of this 'digital agriculture,' which aims to turn the genetic materials of seeds, soil and water resources, as well as farming, transport, storage and sales operations, into data circuits. Computer-enabled transport and extraction corridors are meanwhile menacing the livelihoods and territories of forest-dependent peoples and peasant farmers. And who actually owns this data is a crucial issue of power over food production chains and peasant territories. (5)

Giant retail companies such as Amazon, Walmart, Alibaba and Flipkart are also profiting from an exploding food delivery market. They are partnering with other giant tech firms in order to benefit from information technologies to access data on what people buy, eat and wear. This helps them to better influence and shape consumption choices in ever more sophisticated ways.

Moreover, there is an increasing trend to digitalise land governance and the use of the land and resources linked to it. This digitalisation involves the use of localisation technology and the measurement of property boundaries. And although in theory these technologies could assist in the processes of land titling, their use within existing power imbalances that marginalize collective titling and the rights of forest-dependent communities results in these technologies ending up validating the historic processes of land grabs.

A recent report from GRAIN analysing five regions of agribusiness expansion in South America, including Brazil, Colombia, Paraguay, Bolivia and Argentina, exposed the widespread individual titling in favour of those who first access digital precision systems (GPS) on public lands or on lands customarily occupied by communities. This trend, the report warns, basically constitutes digital land grabbing, (6) which is being reinforced by none other than the World Bank. The Bank has allocated US45.5 million dollars for the registration

of Brazil's savannah (known as *Cerrado*) in the rural environmental cadastre, and US100 million dollars for a multi-purpose cadastre in Colombia. Cadastres are being used as a new form of validation of property rights, legalising wrongfully obtained property titles derived from historical injustices, violence and land grabs. Once the historic violence has been 'erased' by the digital cadastres, the origin of the products in the value chain –such as soya, meat or oil palm– are re-issued and validated as 'sustainable'. This is carried out through the verification and traceability systems of the new technological infrastructure of these long production chains, mainly through Blockchain technology. Moreover, the same digital systems are used for the surveillance and criminalisation of those living in the territories, people who were 'erased' by the digital cadastres.

Another key question is who controls the physical infrastructure for making this digitalisation possible. In December 2020, the Indonesian government offered the Papuan island of Biak, home to some 100,000 inhabitants, to US-billionaire Elon Musk as a potential launch site for SpaceX. The plan is to launch and maintain as many as 42,000 satellites in orbit around the Earth, in order to provide high-speed wireless Internet everywhere on the planet, as well as support for explorations to and the possible future colonisation of Mars. This would require almost daily rocket launches. Russia's space agency, Roscosmos, also aims to develop a large rocket launch site on Biak island by 2024. The island also sits within a region rich in copper and nickel. These metals are essential for the production of rockets, as well as batteries for long-range electric vehicles, such as those produced by Tesla, a company also owned by Elon Musk. (7)

A Digital Economy = A Paperless Economy?

It was already clear for some time that the supposedly forest-friendly 'paperless economy' heralded by 20th-century enthusiasts of the 'digital economy' was never going to happen. Proponents have long claimed that 'going paperless' can save money, boost productivity, save space, make documentation and information sharing easier, keep personal information more secure, and help the environment. They also claimed that paper use would fall and that expansion of the pulp and paper industry would be slowed down by this 'digital' trend. But that is not what has happened.

The shift of the pulp and paper industry was largely towards packaging materials due to the tremendous demands associated with shipping products purchased 'online', along with other steady and growing demands such as tissue papers and food packaging.

'Online' shopping has required packaging to optimise the display of products on shelves for more efficient storage. This growth encompasses a higher demand for carton boxes. 'Online' sales of pulp and paper products are growing in the United States and China, which are the biggest markets. Moreover, the global demand for various types of packaging products seems to be increasing as well. (8)

This continuous demand is felt first and foremost on the territories of communities confronting the devastating impacts of monoculture tree plantations. Indonesia's Ministry of Industry confirmed in February 2021 that at least six new pulp mills had recently started operating in the country, which points to an increase in demand for pulpwood and thus for new plantations to feed them. Two of the mills are already running at full capacity, three are supposed to do so by the end of this year, and the sixth will ramp up to 85% capacity this year. Their combined output at full capacity will be one million tons of pulp per year. There's

also a plan by China's largest pulp company, Nine Dragons Paper, to expand into Indonesia with a view to producing six million tons of pulp a year. (9) The hundreds of thousands of hectares of forests, peatlands and communities' life spaces turned into monoculture tree plantations in Indonesia have already had devastating impacts, as well as increasing the outbreaks and intensity of uncontrolled fires. The construction of new pulp mills will only exacerbate these impacts, in particular for the vulnerable region of Papua.

The 'green' face of the 'digital era'

Aware of the enormous trail of pollution that big technology companies are leaving behind, and trying to avoid that the supposed 'cleaner' 'digital' economy loses any legitimacy, these companies have jumped onto the bandwagon of 'green' PR campaigns.

Microsoft, for example, has vowed to be 'carbon negative' by 2030, which means that it will claim to be removing more carbon dioxide from the atmosphere than it emits each year. By 2050, Microsoft says it will "remove from the environment all the carbon the company has emitted either directly or by electrical consumption since it was founded in 1975." This will be done mainly by capturing carbon dioxide underground and by the use of carbon-offset projects.

Apple has committed to being 100 per cent 'carbon neutral' with respect to its supply chain and products by 2030. Amazon says its shipments will be 'net zero' and is targeting this objective for 50 per cent of all shipments by 2030. Google has pledged to run all of its data centres on carbon-free electricity (such as hydropower, wind and solar) 24 hours a day, by 2030.

This list of pledges only reinforces the reality that the demand for large-scale carbon offset projects will increase, and this, in turn, will increase even further the pressure on forests, communities' territories and fertile land.

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(1) Blockchain technology allows property values such as money to be transferred "peer to peer" – directly from one party to another without a third party, such as a bank or trustee. Transaction data are stored in blocks that are time stamped and tied to one another in forms of codes and cipher systems, forming a chain. Copies of this chain are stored across multiple devices and updated with each new transaction, which makes it virtually impossible to alter transactions retroactively. Blockchain systems frequently make use of so-called "smart contracts" in order to facilitate negotiations of contracts as well as the fully automated commercialisation of the assets through a web portal. For further information see the following article from WRM Bulletin 247, January 2020: <https://wrm.org.uy/articles-from-the-wrm-bulletin/section1/blockchain-and-smart-contracts-capitals-latest-attempts-to-seize-life-on-earth/>

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Responsible, sustainable, renewable and certified: An economy that destroys the planet?



The extraction of raw materials includes metals and minerals, as well as industrial agricultural commodities. When referring to raw materials, capitalist discourse stresses the presumed essentiality of these resources for the global economy. In so doing, it justifies ever more extraction at any cost, and in quantities that far exceed the integrity of the planet, and the safety, lives and health of people.

In the face of undeniable evidence of the devastating impacts of their industrial activities, extractive companies persist with greenwashing strategies to validate themselves. This has increased during the pandemic. “Certifications” for productive chains or raw materials, the use of concepts like “sustainable” or “responsible,” and “offset” mechanisms are some of the tactics that environmental movements denounce.

This extends to the way in which the term “renewable” is used to label new energy sources, in the context of so-called energy transition processes. These tactics are very deceptive, particularly in light of a transition that is anything but just. This is precisely the hypothesis from which I begin.

The prevailing idea is that economic growth based on the large-scale extraction of raw materials must occur, no matter what. With industries’ polluting emissions at their peak, governments claim to be focusing their efforts on saving the planet from the climate crisis under the terms of the Paris Agreement. In this context, there is talk of an energy transition to achieve “climate neutrality.” In other words, the industrial extraction of raw materials is being sold as acceptable, as long as it can “neutralize” or “offset” the destruction or contamination caused by another project in some other place.

Renewable

Renewable energies are called upon to replace fossil fuels (at least in part, for the time being). Due to their natural traits and with adequate management they do not run out; it is possible to use them continuously. These energies include hydroelectric, biomass, wind and solar energy for domestic and industrial use. For the transport sector, biofuels or agrofuels

based on palm or soybean oil are promoted, as well as electric cars. Unlike conventional fossil fuel-based cars, electric cars do not produce polluting emissions while in use; however, a much greater quantity and variety of metals is required to manufacture electric cars and their massive batteries, thus opening a spectrum of problems related to the mineral extraction of these metals. Therefore, the mining industry is part of this discussion and is under the spotlight.

Renewable energies are presented as the “green” solution to *decarbonize* the economy. The Green Deal is the alleged metal- and mineral-dependent solution. But civil society is already criticizing the European Union for fabricating this lie on such a scale, since the Green Deal further drives the plunder of raw materials at the global level, within a green framework (1).

For promoters of this kind of renewable energy, it is not very important to reduce the over-extraction, over-production and over-consumption of energy. Instead, they focus on calculating reductions in polluting gas emissions when renewables replace fossil fuels. Yet, the truth is that counting carbon dioxide is a very problematic activity, and one that serves capitalist interests of maintaining growth in energy production and consumption worldwide. There is no true monitoring of the contamination and impacts caused by the entire chain of renewable energy production.

As if that were not enough, the ultimate goal of many of the new energy projects around the world is no longer to cover people’s basic energy needs. Rather, they aim to supply cheap energy to large industries, such as mining, metallurgy, automobile, aviation, arms production, construction, digital technology, and many others. Among other things, this reveals how the drive for renewable energies allows the violence and abandonment intrinsic to this energy system to continue unquestioned.

Sustainable

The truth is that these days, any company or initiative can call itself “sustainable” with only a minimum of effort. It is such a broad and vague term, that even unmistakably destructive activities—such as oil, mining or industrial monoculture expansion (for both energy purposes and the wood/pulp industry for paper production)—can call themselves “sustainable” or “responsible,” or receive a label for producing in these ways.

But the impacts of these industries are very often brutal. They include theft, land-grabbing and land destruction; they cause displacement and hunger and therefore the genocide of native peoples, the legitimate owners of territories. Highly-polluting industrial activities use toxic chemicals and heavy machinery in sensitive ecosystems, such as tropical forests, peatlands, wetlands, salt flats or deserts. These activities not only effect the expansion of the agricultural frontier, climate change, the water supply and the regulation of rain and fires; they also impact food prices (2).

The idea that “development” means producing for export to already “developed” countries has been imposed on traditionally sustainable communities, communities who coexist with their territories. Now, development is “green” or “sustainable,” because it “certifies” production and extraction processes that were previously denounced as unsustainable. Certification labels—of which there are thousands—aim to convince corporate financiers and to sell products to end consumers, mainly in the Global North.

Certifiable

In the framework of growing discussions on climate change and agreements to move toward “green” or “low-carbon” economies, everything is certifiable. Most industrial operations, seeking to do business as usual, have no option but to resort to some certification as a way to greenwash their image.

Certifications are intended to determine whether a product is “sustainable,” and to contain the risks involved in its production, by developing environmental (and sometimes social) criteria that the product or operation must meet.

But who develops these criteria? Are they valid? What control mechanisms exist for their implementation and compliance? What investment is needed to make this monitoring effective? Who will carry out monitoring? Who pays for it? What about the social and human rights issues that are not being considered? And what does it mean that there is talk of answering these questions, but the years go by and nobody can get satisfactory answers?

There are answers to all of these questions, though they are not satisfactory.

Carbon offset programs that seek to “neutralize” pollution, such as the REDD+ programs, turn to certification in order to gain legitimacy in the face of overwhelming criticism. Monoculture certification initiatives (e.g. for biofuels), such as the Roundtable on Sustainable Palm Oil (RSPO) (3) and the Roundtable on Responsible Soy (RTRS) (4) have, since their inception, been widely contested by human rights and environmental organizations as greenwashing. These organizations include the World Rainforest Movement and Rainforest Rescue. When environmental organizations began to directly challenge these schemes in the first decade of the 2000s, we came across the challenge (among other things) of having to show the public that a scheme presented as a solution to an environmental problem was actually a complete hoax. The “solution” to the problem was actually a problem.

The goal of these initiatives is for products to be accepted, to cut down on questioning, and to open new markets to meet high demand. But the underlying problems remain unresolved. The initiatives or roundtables that claim to bring stakeholders together are very industry-dominated. Affected communities that have participated in these spaces have later expressed that the experience was frustrating. There have been accusations of only using affected people to lend legitimacy to the roundtables. Companies also seek benefits through certification, such as getting into carbon markets, taking advantage of fiscal policies through subsidies and incentives, and entering the market with an ecological image and an “eco” product. The systems involve a lot of bureaucracy, and it is hard to fully scrutinize them.

Most certification schemes are private and voluntary. This means that a company that wants to get certified must find a certification company and pay for this. The payment is to certify the product, business, or part of the business specified by the contracting company. So, obviously, if the certifier wishes to charge for its work and continue getting clients and contracts, it will tend to write in its report more or less what the client suggests. It will accommodate the client’s needs. Under this scheme, certifiers are not able to act independently.

Sustainability certifications are widely used in companies’ advertising campaigns. There is no entity conducting thorough compliance monitoring. Also, it is very common for companies to

certify only a small part of their businesses: precisely the part they will later use to advertise instead than their other unsustainable operations.

The mining tailings dam in Brumadinho, Brazil is a prime example of what can happen, and of the consequences of certification. The dam broke in 2019, causing nearly 300 deaths and many other serious impacts—just a few days after getting a certificate for the stability of the structure (5).

There is still no certification system for mineral resources. In the last 10 to 15 years, several initiatives have been launched for mineral resources (aluminum, gold, tin) or for specific regions. For example, there is the Initiative for Responsible Mining Assurance (IRMA), and the World Bank fund that promotes “climate-smart” mining activities. However, these initiatives do not cover global mining activities, nor do they cover all mineral resources. The European Union is working on a sustainability standard for raw materials, which previous experiences will lead us to view with very critical eyes.

The strategies that promote “sustainable” production on a large industrial scale lead to the loss of local economies, ecosystems, biodiversity, and the ways of life of Indigenous Peoples and other traditional peoples—all despite of beautiful and environmentally-friendly words. Some large conservation NGOs are part of the roundtable discussions on standards. WWF is a co-founder of several labels, such as the MSC on “responsible” fishing—to which the organization itself has come to object (6). Greenpeace ended up leaving the FSC timber certification scheme (7), claiming that its terms did not guarantee the rights of forest-dependent peoples (8). And it recently released a very comprehensive report on the subject of certification (9).

It should also be noted that certification standards, principles and criteria are voluntary; they are not mandatory like laws, such as due diligence. However, the existence of laws does not ensure their compliance if there are no controls. Such is the case of FLEGT and EUTR, European legislation to prevent illegal logging, which have failed to prevent illegally-logged wood from flooding into Europe. Who is responsible for ensuring that the raw materials and energy will truly be renewable, sustainable and responsible resources? Certainly not certifications, for the reasons stated.

Stop greenwashing and make a just transition

The fact is, the dominant economic system is based on such blatantly destructive extractive industries, that an army of certifiers tries to promise consumers—as well as financiers and sources of public subsidies —that “there is nothing wrong.” However, we must not forget that it is very easy for an industry to call itself “responsible.” To be responsible is something else.

There are many well-studied cases of certified business operations which, upon analyzing the circumstances, reveal a very different reality than the certifications suggest. Such is the case of Veracel and Aracruz’s extensive eucalyptus monocultures in Brazil, and a large IFO logging concession in the Democratic Republic of the Congo—all certified with the FSC label for “responsible” forest management. Such is also the case for IOI or Sinar Mas’s industrial oil palm plantations in Indonesia, which have the RSPO certification for “sustainable” palm oil. Monitoring requires so much effort and so many resources that many other suspected cases cannot be thoroughly monitored; and thus they forge ahead, without penalty (10).

Society, especially Western society, needs to become more conscious and demanding. It is deceptive to talk about new energy sources as “renewable” and “sustainable,” while the energy production and its benefits are concentrated in the hands of a few multinational companies. This deception threatens other territories and their inhabitants. A huge proportion of the claims made in advertising and the mass media, including about “certifications,” are based on highly questionable assumptions, and confusing and even false definitions and terminology. It is therefore necessary to ask questions and to stand in solidarity with the struggles in affected territories, as well as break free of the logic of over-consumption, so that pressure on territories decreases.

The goal of industries and their allied financiers is to conduct business that is reliant on technology, growth and the forcefully imposed idea of “more and more”—while easily overlooking basic considerations like respecting mother nature and taking care of life.

In this light, it is urgent to have regulations and laws that include mandatory considerations regarding the behavior of companies with respect to human rights, the destruction of nature, the monitoring of supply chains and corresponding penalties. With laws of this kind, broad solidarity in coherence with grassroots struggles, and a prioritization of human rights and the rights of nature, we could make progress on the problem that voluntary certification schemes have become. If we do not look at the wake left behind by agribusiness, we are imminently doomed to repeat this problem in the field of mining and other raw materials. The only solution centers on a radical reduction in the use, and especially the abuse of resources.

Guadalupe Rodríguez, Latin America campaigner and reference for Rainforest Rescue, and regional point person for the Yes to Life No to Mining (YLNM) Network.

<https://www.rainforest-rescue.org/> <http://www.yestolifenotomining.org/>

(1) Impulsando la minería destructiva: la sociedad civil europea denuncia planes de materias primas de la UE en el Pacto Verde Europeo, <https://www.salvalselva.org/files/es/YLNM%20EU%20ES%20Final.pdf>

(2) FAO Food Price Index http://www.fao.org/worldfoodsituation/foodpricesindex/en/?wptouch_preview_theme=enabled

(3) Greenpeace leaving FSC: what next for commodity roundtables?

https://www.profundo.nl/en/about_us/expert_views/greenpeace-leaving-fsc-what-next-for-commodity-roundtables

(4) Briefing Roundtable on Responsible Soy: Can Monoculture Soy be Responsible?

<https://www.rainforest-rescue.org/news/1199/briefing-roundtable-on-responsible-soy-can-monoculture-soy-be-responsible>

(5) TÜV Süd será alvo de ação coletiva na Alemanha por Brumadinho, <https://www.dw.com/pt-br/t%C3%BCv-s%C3%BCd-ser%C3%A1-alvo-de-a%C3%A7%C3%A3o-coletiva-na-alemanha-por-brumadinho/a-56319568>

(6) Nos oponemos a la primera certificación MSC para el atún rojo del Atlántico, <https://www.wwf.es/?53260/Nos-oponemos-a-la-primera-certificacion-MSC-para-el-atun-rojo-del-Atlantico>

(7) Greenpeace leaving FSC: what next for commodity roundtables?,

https://www.profundo.nl/en/about_us/expert_views/greenpeace-leaving-fsc-what-next-for-commodity-roundtables

(8) Greenpeace denuncia que la certificación forma parte del greenwashing empresarial y no están frenando la destrucción de los bosques, 2021, <https://es.greenpeace.org/es/sala-de-prensa/comunicados/greenpeace-denuncia-que-la-certificacion-forma-parte-del-greenwashing-empresarial-y-no-estan-frenando-la-destruccion-de-los-bosques/>

(9) Destruction: Certified https://www.greenpeace.org/static/planet4-international-stateless/2021/04/b1e486be-greenpeace-international-report-destruction-certified_finaloptimised.pdf

(10) There are numerous studies and critical reports that present these and other cases, such as the one mentioned by Greenpeace, the [EIA investigation, Who's watching the watchmen](#), and the book and [documentary, The Silence of the Pandas](#). The websites, [FSC-Watch](#) and [REDD Monitor](#) are good resources on the topic of greenwashing, with many concrete examples.

RECOMMENDED

Mining and Militarization: two sides of the same coin

A report from the organization London Mining Network highlights that extractivism is a militarised process: it violently ruptures ecosystems and habitats. In doing so, it displaces then polices communities with ongoing connections to the land applying various counterinsurgency tactics to maintain extractive legitimacy. Relatedly, militarism is an extractive process: it depends on vast quantities of metals and minerals to innovate and assemble more deadly technologies of control and destruction. Further, it fuels the climate crisis. The UK's military-industrial sector has a carbon footprint of at least 11 million tonnes a year, more than 60 individual countries like Madagascar and Zambia. Read the report here (in English)

<https://londonminingnetwork.org/wp-content/uploads/2020/04/Martial-Mining.pdf>

How the fossil fuel industry used Covid-19 for polluting energy schemes

Fossil fuel companies and interest groups in Europe captured tens of billions of public money from Covid-19 recovery packages. On top of this, Friends of the Earth groups alert on how the fossil fuel industry has strongly lobbied to win concessions for climate-damaging energy schemes across Europe, including gas, hydrogen, carbon capture and storage (CCS), carbon offsetting

<https://corporateeurope.org/en/2020/10/polluters-profitting-pandemic-bailouts>

500+ experts call on world's nations to not burn forests to make energy

In February 2021 more than 500 scientists and economists issued a letter urging to stop burning wood as a means of making energy in converted coal burning power plants and to end subsidies now driving the explosive demand for wood pellets. The burning of wood to produce electricity boomed since the United Nations categorized this energy source as 'carbon neutral', which enables governments and companies to burn wood instead of coal and not count the emissions in helping them meet their climate related targets. In the European Union alone, nearly 60% of renewable energy already comes from wood biomass, amounting to millions of metric tons of wood pellets burned annually. Read an article from Mongabay on this and access the letter here.

<https://news.mongabay.com/2021/02/500-experts-call-on-worlds-nations-to-not-burn-forests-to-make-energy/>

Bioeconomy and Global Inequalities

This is the title of an open access book with 15 chapters focusing on the meanings, agendas, as well as the local and global implications of bioeconomy and bioenergy policies in and across South America, Asia and Europe. It explores how the 'energy transition' reinforces and challenges socio-ecological inequalities. Various conceptual discussions and case studies – from knowledge extraction to sexual exploitation and labour migration - clarify how the extraction of biomass sources from agricultural and forest territories affect societies.

Access the book in English here: <https://www.palgrave.com/gp/book/9783030689438>

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