

# böll | thema

Analyzed: Activist Sara Larraín on the consequences of mining in Chile

Explained: How the circular economy could work justly on a global level

Considered: What the demand for domestic raw materials could mean in the resource-rich countries in Europe

23-2

A Heinrich Böll Foundation publication

## Cursed Treasures

The global hunger for raw materials and its consequences for people and the environment





The restructuring of energy and transportation infrastructures is underway worldwide. The demand for critical and strategic raw materials such as copper, cobalt, lithium and rare earths will grow rapidly. In this issue, we discuss new dynamics in resource extraction, its impacts and, above all, opportunities for change.

Change is sorely needed: While the competition between the United States, China and the EU, as well as Russia, for access to resource-rich countries has become fiercer, people and civil society organizations in many places are fighting back against resource extraction and for fairer rules, because their livelihoods are being destroyed and their future is threatened. We – the Heinrich Böll Foundation and its partner organizations – support them in this fight, for instance by providing legal assistance and through public relations work. This publication is intended to provide insights into this important topic. As far as the raw materials partnerships of the European Union and Germany are concerned, one thing is clear: They must be designed in a way to avoid environmental damage and achieve greater social benefits in the resource-rich countries, for instance through new mining methods, more employment, processing capacities and redistribution and through respect for human rights. Restrictions must continue to be placed on mining in general: The deep sea must be declared off limits, as must headwater and biodiverse regions. The local communities must be involved in prospecting and in the approval process of new mining projects. It is also essential, however, that we reduce our consumption of raw materials altogether – by means of more durable and repairable products, recycling and new usage patterns such as sharing. This, too, is part of what we are working for – hopefully alongside you and with your support.



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Dr. Imme Scholz  
Co-President,  
Heinrich-Böll-Stiftung

Imme Scholz

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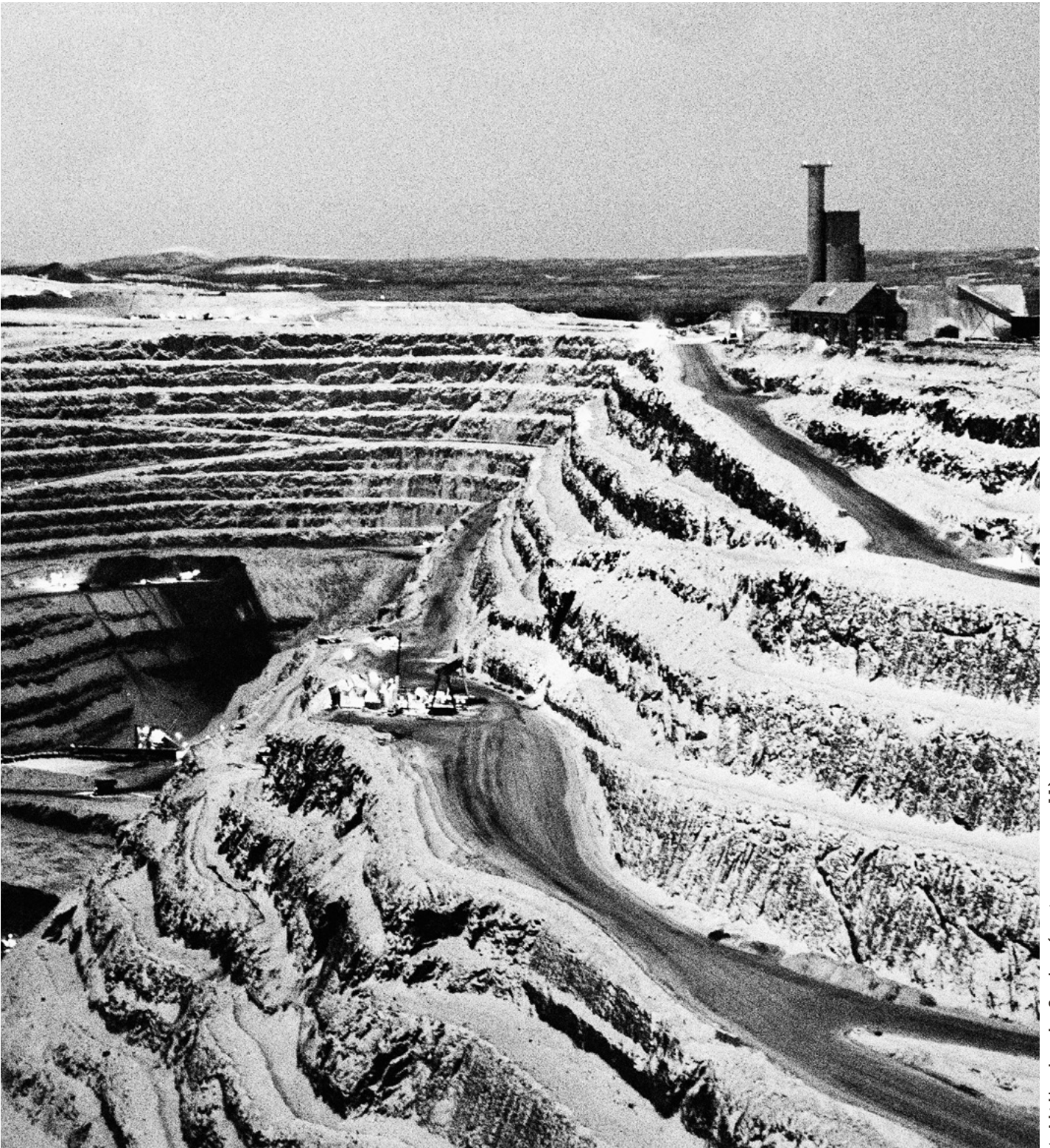
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**Yes, we can (do better):  
on a new and intelligent  
use of resources**

by Johanna Sydow

“The race (for raw materials) is on.” This is how Ursula von der Leyen, President of the EU Commission, presented the Critical Raw Materials Act (CRMA) on March 16 of this year. The new law is designed to improve Europe’s access to metallic raw materials. The war of aggression against Ukraine highlighted – once again – how problematic it can be for the EU economy to depend on individual countries for its raw material imports. While Germany and the EU have achieved near-independence from Russian gas imports since the beginning of the war, Germany, according to current information from the German Mineral Resources Agency (DERA), continues to purchase some metallic raw materials from Russia, albeit in smaller quantities than before. The greatest dependence in the area of metallic and mineral resources is on China, however. Up to 80 percent of rare earths are mined there; and, even if these raw materials are not extracted in China itself, in excess of 50 percent of the world’s supply of (natural) graphite, cobalt, lithium and manganese is refined there, according to a new study by the International Renewable Energy Agency (IRENA).

As recently as 2011, the European Raw Materials Initiative aimed to deploy instruments such as lawsuits against China before the World Trade Organization (WTO) to obtain raw materials. By now, however, many importing countries have made major adjustments and are trying to diversify their sources of metallic raw materials in order to become more independent of China. As a consequence, there has been a shift of interest to a whole new set of countries as potential cooperation partners. It was, for example, hard to miss how many delegation trips the German government has made to Latin America in recent months. Latin America is not the only focus of interest, however: The EU has also begun to conclude partnerships with Namibia, Ukraine, Chile and Argentina, among others. Both the EU and the US are working on new legislation and alliances, such as the one between Canada and the United States, to attain better and more reliable access to raw materials (see also our Dossier on page 7 and the article by Anna Cavazzini, p. 29). Some are referring to metallic raw materials as “the new oil”; others, such as Carnegie Europe expert Olivia Lazard, suspect Russia’s interest in Ukraine’s mineral resources as a motive of its brutal

war of aggression. One thing is certain: Metallic raw materials have gained center-stage in geopolitics. Demand has seen a massive increase in recent years. According to 2021 data from the International Energy Agency (IEA), by 2040, global demand for rare earths is expected to grow sevenfold, that for lithium more than 40-fold. Forecasts for the demand in other raw materials such as copper and cobalt also show dramatic increases.

#### Use of metallic raw materials

But what are these raw materials used and needed for? It was not by accident that the Critical Raw Materials Act was presented on March 16th of all days, since this was also the date when the EU’s Net Zero Industry Act was introduced, a proposed law to promote a more climate-friendly industry and energy supply. The energy transition depends on metallic raw materials, but it is not alone in that: Digitalization, global rearmament and the transportation and construction sectors in particular are also devouring large quantities of metallic raw materials. According to a study by the NGO PowerShift, skyrocketing demand in metallic raw materials such as copper and iron – which are used in massive



quantities – is not being driven by the energy transition: In Germany, the world's fifth-largest consumer of raw materials, the transportation sector (and within it the automotive industry) and the construction sector in particular consume raw materials on a large scale. The political discourse thus does not just revolve around metallic raw materials in general; it distinguishes between critical and strategic raw materials that are seen as indispensable for many key projects of our society.

The list of critical raw materials, i.e. the economically most important raw materials with a high supply risk, is continuously updated by the EU. This list in turn serves to guide further decisions, including those on the allocation of research funds. In the context of the new CRMA, a new category has been created, that of strategic raw materials, i.e. raw materials that are in high demand and often used in strategic industries. For both critical and strategic raw materials, strategic projects in mining, processing and recycling can now be applied for on the basis of the CRMA, which may qualify them for fast-tracking and financial support.

Which raw materials exactly are to be classified as critical is not uniformly defined globally and not without controversy; the same applies to the newly proposed measures to obtain them. The German Federal Environment Agency (UBA) has long been recommending that this assessment should not just be based on economic aspects but also take research findings on the consequences of the extraction for the environment and local communities into consideration. Such an assessment could then promote the search for substitute materials or technologies for ecologically very problematic raw materials. Unfortunately, this proposal has met with little response so far. At least – and for the first time – a system is to be developed in the context of the CRMA that identifies the environmental impact.

Indicator	Kaolin	Iron	Lithium	Copper
acid mine drainage	low	medium	low	high
heavy metals	low	medium	low	high
radioactive substances	low	medium	medium	medium
extraction method	medium	medium	high	medium
auxiliary materials	low	medium	medium	high
incident potential	low	medium	high	high
water shortage	mittel	high	medium	high
biodiversity	low	high	low	medium
aggregated EHP	low	mittel	medium	high

#### Environmental hazard potential (EHP) indicators

Source: Resources Report for Germany 2022, German Environment Agency (UBA)

#### Insurmountable tensions?

Metallic raw materials are essential for our energy transition. The energy transition can help conserve many resources, especially fossil fuels. Nonetheless, the overall demand for many metallic raw materials is rising sharply (not just due to the energy transition), and their extraction and local processing often come at a very high price in terms of human rights and ecological damage – a price we cannot and must not ignore, but, on the contrary, must look at more closely.

The extraction of raw materials consumes large amounts of water. In many countries, such as Chile and Peru, this has led to conflicts in recent years. In Peru, the protests over mining have become so intense that a change in the legal framework was enacted in 2014. Law no. 30151 permits the police to fire on protesters without fear of legal consequences. This has led to many brutal conflicts with fatalities.

In a number of cases, elevated levels of heavy metals in the blood as a result of irresponsible mining activities have caused massive damage to the health of local communities. However, the people affected usually have no legal means of seeking redress or bringing those responsible to justice (see also the article by Verena Schaeffer and Mattes Tempelmann, p. 36). Elsewhere, locals are forcibly relocated and receive very little compensation. Deprived of their

livelihoods, they become impoverished. Furthermore, the overall economic benefit to the mining countries is often much lower than initially expected, primarily due to the low level of processing done in these countries. In Peru, materials derived from mining account for 61 percent of all exports. By contrast, according to a study by Misereor and others, the mining sector contributed just 6.7 percent of state revenues in 2016. There was also a negative tax balance and just one percent of the population was directly employed in the sector. The profits are made by others.

#### The EU aims to make its mark

The European Union now wants to do things differently. The creation of strategic partnerships is intended to ensure that it will gain access to raw materials and simultaneously promote value creation in the mining country. Ursula von der Leyen emphasized this aspect with regard to the strong human rights and environmental standards enshrined in the CRMA. This is supposed to distinguish the EU as a trading partner compared to China. In recent decades, the latter has not only greatly expanded its own mining industry, but also invested heavily in mining in other world regions such as Latin America and Africa. Whether the EU's approach is sufficient to establish it as a preferable trading partner remains to be seen.

Its efforts may be counteracted by the fact that the EU is simultaneously suing countries like Indonesia before the WTO because they are expanding their own processing industry and thus no longer wish to export their raw materials in unprocessed form. This may not be the best way of strengthening the trust of potential partner countries in the EU. The fact that the CRMA allows for significantly abbreviated approval processes for strategic projects without standards for participation of the potentially affected communities could further damage Europe's credibility. Similarly, the rights of indigenous peoples, as set out in ILO Standard 169 (see also the article by Ingrid Hausinger, p.48), did not make it into the final negotiating text of the European Parliament until the last vote, despite pressure from the Green and Left factions. It was only thanks to a powerful and unrelenting push from civil society that the United Nations Declaration on the Rights of Indigenous Peoples ultimately made it into the final version of the Act. That is concerning, particularly in view of the fact that, according to the latest report by the International Renewable Energy Agency, about 54 percent of the deposits of minerals needed for the energy transition are located in the vicinity of indigenous territories and 80 percent of lithium and more than half of all nickel, copper and zinc deposits actually within indigenous territories. Human Rights Watch and numerous other organizations also sharply criticize the fact that ensuring compliance with human rights and environmental standards in this context is to be largely delegated to private certification initiatives (see also the interview with Matthias Baier, p. 42).

#### **A more economical use of resources is needed**

The EU's partnerships and agreements must thus be closely monitored. Local stakeholders should already be involved in their negotiation and implementation stages. But further tools are needed to minimize the impact of our resource consumption. As things stand, the rush for raw materials threatens human rights and the livelihoods of current and future generations.

A promising tool in this context is the Batteries Regulation the EU adopted this year, as it contains both measures for the recycling of materials used in batteries and human rights and environmental standards for their production. Many stakeholders who have been calling for more corporate

responsibility for people and the environment for years also have great hopes for the EU's supply chain law, the Corporate Sustainability Due Diligence Directive. The German version of this act already came into force this year (see also the text on supply chain laws, p. 39). In a parallel development, many civil society organizations, particularly in the Global South, are fighting for an agreement on business and human rights on the United Nations level, some of them in cooperation with their governments. They want the EU to come to the table with a negotiating mandate. The agreement is to finally provide access to legal remedies for those affected (see also interview with Erika Mendes, p. 44). The strengthening of human-rights and environmental institutions in the mining countries as well as fairer trade policies that open up a national scope to reduce the impact of the extraction of resources for our consumption are further important aims.

#### **Protection for certain areas**

Overall, however, it is crucial that we use natural resources more intelligently, because mining is – by definition – not sustainable. Any increase in mining tends to come with an increase in impact on the environment and on human rights. As the mining process progresses, the concentration of ores in the rock decreases. In the search for new deposits, the mining industry is encroaching further and further into protected areas and headwater and glacier regions. Not even the deep sea appears safe any longer. It is therefore important that certain regions, such as the unexplored deep sea, headwater regions and particularly biodiverse areas, be protected from mining activities and that we reduce our overall consumption of resources.

The goal of reducing primary raw material consumption forms part of the German government's coalition agreement; not least, because it also makes sense from a climate-policy perspective. According to the Organisation for Economic Co-operation and Development (OECD), the mining and processing of the seven major metals (iron, aluminum, copper, zinc, lead, nickel and manganese) account for 7 percent of global greenhouse gas emissions (OECD Resource Outlook 2019). In this year's summary report, the Intergovernmental Panel on Climate Change (IPCC) also stressed the importance of reducing our consumption of materials and energy. A stringent circular economy that actually respects the waste hierarchy that has been enshrined in law

for many years and that prioritizes waste avoidance and long-term product use over recycling (see also the article by Johanna Sydow and Luisa Denter, p. 54) could be a good starting point.

But it is also very important that we actually take the limits of our planet's ecosystem into account and define guard rails in order to limit resource consumption to a level compatible with the protection of the environment and of human rights. In the area of mobility, for example, it would make sense to expand public transportation in such a manner that private transportation can be reduced and fewer vehicles are on the road (see also the article by Alejandro Gonzalez, p. 56). Overall, this issue will put our commitment and creativity to the test!

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#### **► Further reading:**

**1 RESCUE – Resource-Efficient Pathways to Greenhouse-Gas-Neutrality, a project by the German Environment Agency (UBA)**  
<https://www.umweltbundesamt.de/themen/klima-energie/klimaschutz-energiepolitik-in-deutschland/szenarien-konzepte-fuer-die-klimaschutz/rescue-wege-in-eine-ressourcenschonende#hintergrund>

**2 Research by the Climate and Community Project**

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

**3 Germanwatch: Wie weiter mit der Rohstoffwende? (in German)**

<https://www.germanwatch.org/de/20369>



# The great race for resources

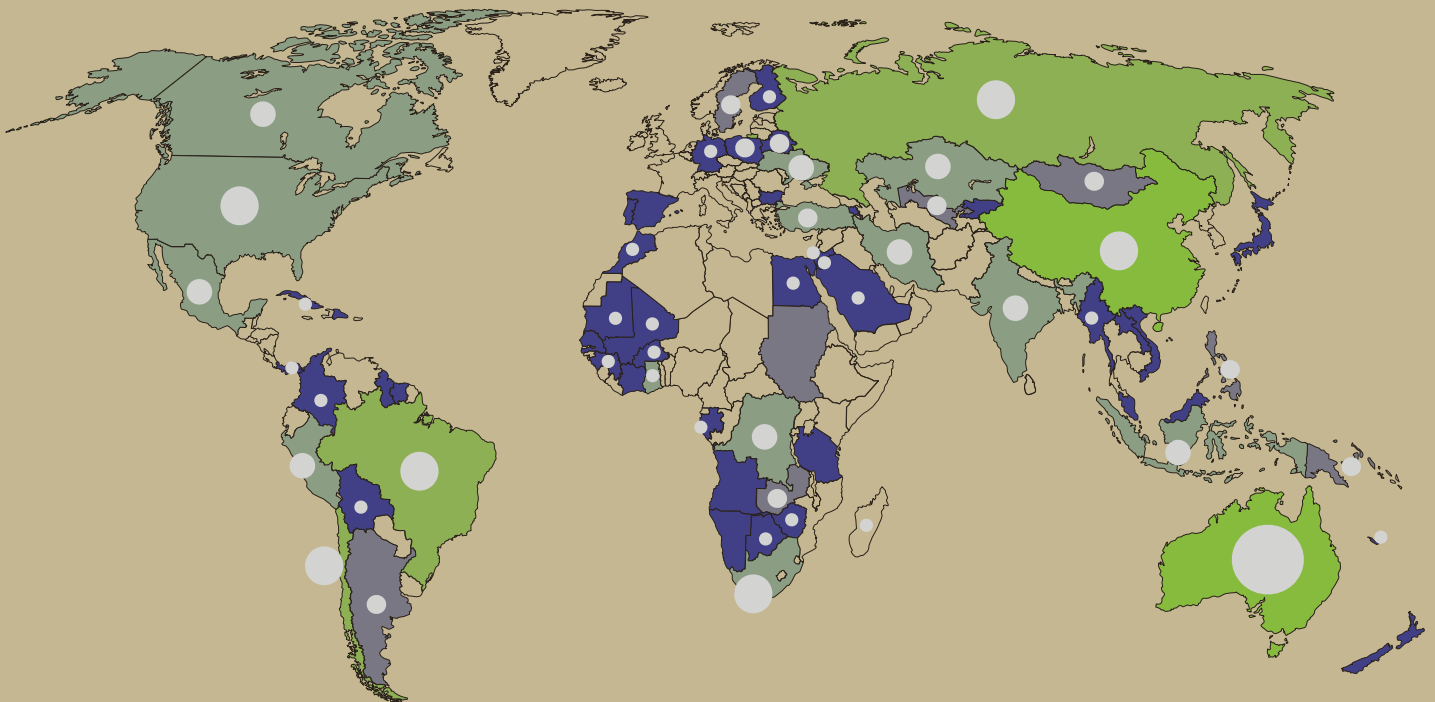


▲ Coltan mine in the Congo

Our industrial production requires a secure supply of metals. Mining is a global business, subject to extensive EU legislation. It often goes hand in hand with human-rights violations, and its ecological costs are high. Yet concepts, strategies and technologies do exist that could reduce our consumption of metals – and lead to fairer ways of mining them. An overview.

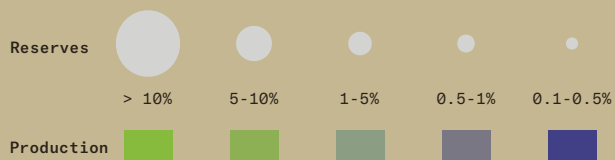
## Metal mining worldwide – and metal deposits in Europe

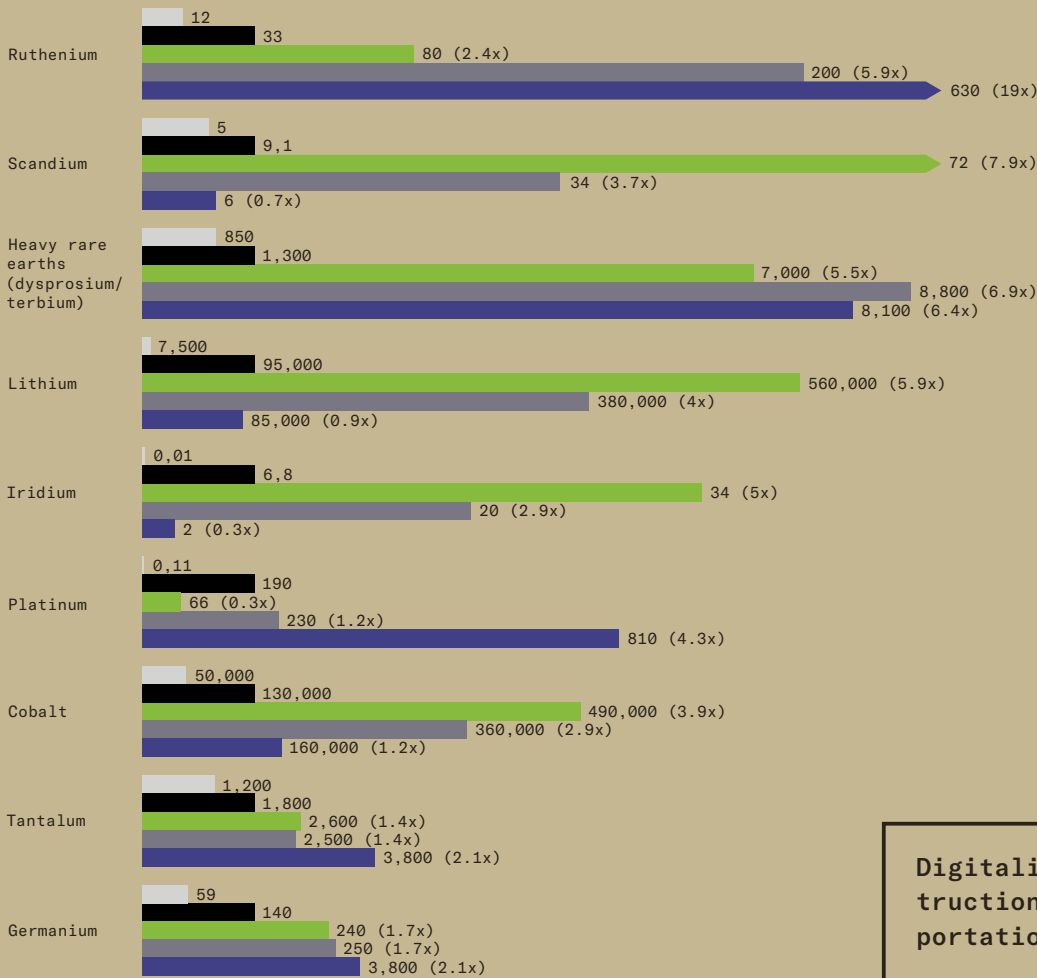
The dots in the graphic below illustrate the calculated value of metal reserves worldwide. The term “reserves” designates deposits that can actually be extracted profitably – rather than those whose availability is purely theoretical. A change in technological or economic conditions can thus lead to a change in reserve volumes. An increase in commodity prices, for example, may make the extraction of metals in remote locations worthwhile that would not make economic sense at lower prices; and new technology may allow access to metals that previously were out of reach. The coloring shows the share of countries in the annual production of metals.



### The world's most important mining countries by share of production and reserves

Source: German Federal Institute for Geosciences and Natural Resources (BGR), 2022





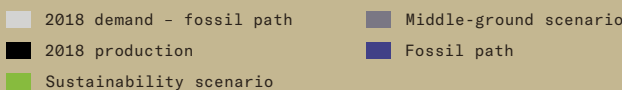
## Demand for selected metals by future technologies

The chart shows the potential demand for certain raw materials created by what is often referred to as “future technologies” - e.g. microchips, high-performance lithium-ion batteries, fuel cells, wind turbines or thin-film solar cells. The demand for raw materials can vary depending on which technical innovations, political stipulations and consumption patterns prevail. For example, if equipment is repaired and remains in service longer, the demand for raw materials will decrease. The figures presented are not forecasts, but rather illustrate possible developments that appear realistic based on today’s knowledge.

### Demand for selected metals by future technologies

Source: German Mineral Resources Agency (DERA): *DERA Rohstoffinformationen. Rohstoffe für Zukunftstechnologien*. Berlin, 2021©

Quantities in metric tons\*



\*Calculations are based on the socio-economic development paths from the Intergovernmental Panel on Climate Change report.

### Digitalization, construction and transportation are key drivers

Public discourse suggests that the energy transition is the reason for the strong demand for natural resources. That is not the case. In Germany, for example, the main demand drivers are digitalization, construction and the transportation sector. If sales figures remained unchanged, the batteries for electric Volkswagens alone would require about eight times as much aluminum and nickel in 2030 as the total increase in wind power plants planned for Germany until then. In fact, the production of renewable energies does not actually require significantly larger volumes of metal than the use of fossil energies. Quite the opposite: some renewable energy technologies, such as small hydroelectric plants or roof-mounted photovoltaic systems, have a much smaller “metal footprint” than fossil-fueled power plants, for instance. Put into numbers, a small hydroelectric plant requires 340g of metals to produce one megawatt hour of electricity; a coal-fired power plant needs up to 3,920g, i.e. about ten to eleven times as much.

One thing is clear: The expansion of renewable energy technologies requires large amounts of metals. Their material intensity is still significantly lower than that of conventional power plants, however, since the fossil fuels burned in gas- and coal-fired plants also forms part of the equation.

From the *Connecting the Raw Materials Transition and the Energy Transition* study by PowerShift with data from the Luxembourg Institute of Science and Technology (LIST)

# There would be no resource scarcity...

... if production and consumption were designed in accordance with a sustainable circular economy. Living spaces would become smaller, electrical appliances would be repaired and eventually recycled, the number of cars would decrease and the few cars remaining would be smaller and lighter. And so on.

This potential for change means: In a sustainable circular economy, large parts of the expected resource demand - for example 61 percent of cobalt and 68 percent of neodymium - could be met by technological innovations, recycling and behavioral changes. Zero percent means: Circular economy measures prevent shortages.

Resource	Critical	Supply risk	Economic significance	Environmental hazard potential	Potential for change
Palladium	Very Critical	Very Critical	Very Critical	High	+133%
Yttrium	Very Critical	Very Critical	Very Critical	Medium high	+90%
Dysprosium	Very Critical	Very Critical	Very Critical	Medium high	+79%
Neodymium	Very Critical	Very Critical	Very Critical	High	+68%
Terbium	Very Critical	Very Critical	Very Critical	Medium high	+61%
Cobalt	Very Critical	Very Critical	Very Critical	High	+61%
Copper	Very Critical	Very Critical	Very Critical	High	+58%
Praseodymium	Very Critical	Very Critical	Very Critical	High	+55%
Gallium	Very Critical	Very Critical	Very Critical	Medium high	+55%
Nickel	Very Critical	Very Critical	Very Critical	High	+48%
Niobium	Very Critical	Very Critical	Very Critical	Medium high	+38%
Beryllium	Very Critical	Very Critical	Very Critical	Medium high	+38%
Aluminum	Very Critical	Very Critical	Very Critical	Medium high	+31%
Indium	Very Critical	Very Critical	Very Critical	High	+20%
Antimony	Very Critical	Very Critical	Very Critical	High	+20%
Gold	Very Critical	Very Critical	Very Critical	High	+19%
Phosphates	Very Critical	Very Critical	Very Critical	High	+17%
Molybdenum	Very Critical	Very Critical	Very Critical	High	+16%
Zinc	Very Critical	Very Critical	Very Critical	High	+13%
Germanium	Very Critical	Very Critical	Very Critical	High	+13%
Gadolinium	Very Critical	Very Critical	Very Critical	Medium high	+12%
Silver	Very Critical	Very Critical	Very Critical	High	+12%
Vanadium	Very Critical	Very Critical	Very Critical	High	+11%
Cerium	Very Critical	Very Critical	Very Critical	High	+11%
Ytterbium	Very Critical	Very Critical	Very Critical	Medium high	+9%
Borates	Very Critical	Very Critical	Very Critical	Medium high	+9%
Quartz sand	Very Critical	Very Critical	Very Critical	Medium high	+9%
Erbium	Very Critical	Very Critical	Very Critical	Medium high	+8%
Selenium	Very Critical	Very Critical	Very Critical	High	+8%
Bismuth	Very Critical	Very Critical	Very Critical	High	+3%
Tellurium	Very Critical	Very Critical	Very Critical	High	+3%
Europium	Very Critical	Very Critical	Very Critical	Medium high	+3%
Lanthanum	Very Critical	Very Critical	Very Critical	High	+3%

List of raw materials considered with evaluation

Source: Öko-Institut / Fraunhofer ISI / FU Berlin: *Modell Deutschland Circular Economy. Modellierung und Folgenabschätzung einer Circular Economy in 9 Sektoren in Deutschland.* Freiburg, 2023.

Situation: ■ Very Critical ■ Critical ■ Medium to High

# Mining and gender

Earnings of women  
in the extractive sector:

## A Quarter

of what men earn

In mining countries,  
women often

do not have  
access to mining  
rights and titles.

Mining  
adversely impacts  
women:

- through

conta-  
minated  
soil and water,  
because it often mainly women who  
farm and raise livestock

Share of women  
in artisanal mining:  
from

## 30 to 50 percent

(depending on  
country and company)

- because in many countries,

## they hold no titles to their land.

They lose their livelihoods  
and are not compensated when  
land is used for mining.

- through

## sexual

## assault,

as male workers  
migrate to mining  
regions

Approx. **10**  
**percent**

Share of women  
in industrial  
mining



▲ In the Congo, cobalt is also mined by informal diggers.  
Women collect the empty bags in order to reuse them.

# Mining harms the environment and human health



## Air pollution

In opencast mining, the wind carries exposed elements such as lead, arsenic or cadmium into the environment. The associated vehicle traffic emits nitrogen oxides and particulate matter. These pollutants can harm the health of people living near the mining site, causing respiratory diseases and allergies.



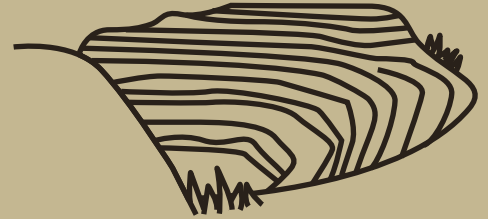
## Water consumption

The German Federal Statistical Office lists industry and mining as the largest water consumers in Germany. Mining requires water to extract and process the ores. According to a Swedish study, about 92.7 liters of water are needed to extract 1 kilogram of copper. To be fair: Mining and industry in Germany have been using less water lately, while agricultural water consumption is increasing.



## Water pollution

Acid mine drainage, metals and other contaminants end up in rivers. Pollutants from treatment plants, tailings ponds, underground mines, waste disposal facilities and active or abandoned surface or haul roads are the main sources of water pollution.



## Destruction of the landscape

Open pits and spoil tips can impact the landscape and physically destroy the soil, harming local plants and animals. Many of the surface features destroyed by the mining operations cannot be restored once they cease. Removal of soil layers and deep underground excavations can destabilize the ground. Even after renaturation, the land does not regain its original agricultural productivity.



## Loss of biodiversity

Pollution and landscape destruction can have catastrophic effects on biodiversity in mining areas. Losses range from soil microorganisms to large mammals. Endemic species, i.e. those that occur only in limited areas or a specific region, are the hardest hit as even the slightest disruption to their habitat can lead to extinction. Toxins released by mining can wipe out entire populations of vulnerable species.

Source: <https://www.worldatlas.com/articles/what-is-the-environmental-impact-of-the-mining-industry.html>

## The EU's resources policy – part of the “Green Deal”

### European Green Deal – the overarching strategy

#### OBJECTIVE:

Climate neutrality of the 27 member states by 2050. Reduction in greenhouse gas emissions by 55 percent from 1990 levels by 2030. Includes numerous individual measures.

[https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal\\_en](https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal_en)

### Critical Raw Materials Act

#### OBJECTIVE:

Ensuring the supply of critical raw materials to member countries. The list of critical raw materials currently includes 34 items and is continually updated. Sources of raw materials are to be diversified, monitoring and resilience to short-term supply shortages expanded and the circular economy strengthened. The central instrument is the promotion of strategic projects in the context of mining, recycling and processing within Europe and abroad. Civil society criticizes weak environmental and human-rights standards and a lack of targets for a reduction in resource consumption.

[https://ec.europa.eu/commission/presscorner/detail/en/ip\\_23\\_1661](https://ec.europa.eu/commission/presscorner/detail/en/ip_23_1661)

### Corporate Sustainability Due Diligence Directive

#### OBJECTIVE:

Mitigating or eliminating human rights violations and pollution in the supply chains of European companies in all sectors. It is intended to obligate companies to identify and prevent, end or mitigate adverse impacts of their operations such as child labor, slavery, pollution or loss of biodiversity along their supply chains.

[https://eur-lex.europa.eu/resource.html?uri=cellar:bc4dcea4-9584-11ec-b4e4-01aa75ed71a1.0001.02/DOC\\_1&format=PDF](https://eur-lex.europa.eu/resource.html?uri=cellar:bc4dcea4-9584-11ec-b4e4-01aa75ed71a1.0001.02/DOC_1&format=PDF)

### Strategic Partnership on Raw Materials

#### OBJECTIVE:

Securing the supply of raw materials. With its partnerships on raw materials, the EU aims to work with resource-rich countries to create safe, resilient, economical and sustainable supply chains, while promising to promote economic development by creating value chains within the mining countries.

[https://ec.europa.eu/commission/presscorner/detail/en/ip\\_23\\_1661](https://ec.europa.eu/commission/presscorner/detail/en/ip_23_1661)

### Critical Raw Materials Club

#### OBJECTIVE:

Securing raw material supply chains. Within the framework of a “club for critical raw materials”, the EU aims to strengthen global supply chains and the World Trade Organization. The club members want to facilitate investment and expand free trade agreements, and intend to defend themselves against unfair trading practices. This could mean that countries such as Indonesia or Namibia are prevented from developing their own industries for processing raw materials. Many civil society organizations see this as a contradiction to the EU's declared intent to enable value creation in mining countries in regions such as Latin America and Africa in order to enable them to benefit more from their own natural resources.

[https://ec.europa.eu/commission/presscorner/detail/en/ip\\_23\\_166101aa75ed71a1.0007.02/DOC\\_1&format=PDF](https://ec.europa.eu/commission/presscorner/detail/en/ip_23_166101aa75ed71a1.0007.02/DOC_1&format=PDF)

### Circular Economy Action Plan

#### OBJECTIVE:

Reducing waste, increasing product sustainability in the EU. Essential pillar of the European Green Deal. Provides for numerous individual measures, such as an eco-design directive to promote re-use and recycling, and a right to repair.

<https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52020DC0098>

**Oliver Radtke, Director of the Heinrich Böll Foundation's Beijing office**

**Mr. Radtke, what role do raw materials play in China's foreign policy?**

China has developed a monopoly on some mineral resources, supplying, for instance, approximately 98 percent of EU imports of rare earths. Beijing uses mineral resources as a trade weapon: Following a 2010 incident near the disputed Senkaku Islands, or Diaoyu Islands, as China refers to them, the Chinese government halted all exports of rare earths to Japan. By the same token, China imposes import stops, for example on coal or lobster from Australia. According to an OECD study, China leads the world in the number of export restrictions on critical raw materials.

**How strategic is China when it comes to its own supply of natural resources?**

Under the Belt and Road Initiative, Chinese state-owned companies are investing in raw material extraction worldwide, partly to meet China's own immense and growing demand. China currently consumes 50 percent of global steel production. And it is much better prepared for the coming mineral economy than Europe, as plans for clean technologies – hydrogen batteries, wind and solar power – were developed as far as 15 or 20 years back.

**Is China self-sufficient?**

No, it is heavily dependent on the import of soft commodities, i.e. lightly processed agricultural products such as soybeans and beef. China imports nearly 80 percent of its annual soy consumption, primarily from Brazil and the United States. This makes it one of the major drivers of (illegal) deforestation in the Amazon and in Mercosur. It now aims to reduce these dependencies. In terms of future industries, China depends on imports of lithium and cobalt, among other things. It will therefore want to establish and expand strategic partnerships with producing countries in Africa and South America.



**The geopolitical importance of raw materials**



**Aaron Mintzes, Senior Policy Counsel at Earthworks, Washington, DC**

**What role does the supply of natural resources play in the Inflation Reduction Act, the US law aimed at combating inflation through investments?**

The Inflation Reduction Act includes tax credits for the domestic mining and refining of raw materials, as well as for electric vehicles that contain raw materials (metals, batteries and their components) sourced domestically or from countries that have free trade agreements with the US. This is intended to increase the supply of primary and recycled materials. By means of the Inflation Reduction Act and the Investment in Infrastructure and Jobs Act, the government is trying to balance supply and demand for natural resources.

**Is the current administration pursuing strategic geopolitics to secure raw material supplies?**

Yes. The State Department maintains the Mineral Security Partnership, a global initiative of industrialized countries such as Australia, Canada, France, Germany and others with the aim of ensuring secure and sustainable supplies of raw materials. There is also the Energy Resources Governance Initiative, which focuses on Latin America and is mainly concerned with lithium.

**How does domestic mining affect the US population?**

In the US, the vast majority of copper, cobalt, lithium and nickel deposits are located within 35 miles of Native American reservations. The legislation that still governs most mining in the US dates back to 1872, i.e. the time of the westward expansion. While the law does require the tribes to be consulted before mining permits are issued, in practice this too often means that the government simply sends a letter or has a representative attend a meeting. No provisions have been made for license fees, for example. Unless there is a legislative reform, the mineral rush of the 21<sup>st</sup> century will only repeat the mistakes of the past.



# Mining metals leads to unrest and protests: mining conflicts in Latin America



Known conflicts: 284  
 Cross-border conflicts: 5  
 Mining projects involved: 301  
 Cases of criminalization of protests: 264  
 Mining-related referendums: 39  
 Water conflicts: 162

The Observatory of Mining Conflicts in Latin America is an NGO based in Santiago, Chile

Source: El Observatorio de Conflictos Mineros de América Latina, [www.ocmal.org](http://www.ocmal.org)



“For repairs to become the default choice again, they need to be easier and cheaper.”

# Patching, soldering, fixing

by Katrin Meyer

Not too long ago, to sew, fix, solder or patch something that was broken or worn was the normal thing to do for most people. It was a given that one would use one's own skills or call a repair service to extend the lifespan of appliances and other household items as far as possible. Nowadays, if a smartphone, a shoe or a washing machine breaks, a delivery van shows up with a replacement in less time than the garbage truck needs to haul away the old one. The extraction of raw materials and the production of new consumer goods have become ever cheaper – because the environmental and social costs are not priced in. This leads to us buying and owning more, while losing touch with many of the things that surround us. Manual skills and repair knowledge are less and less likely to be passed on from one generation to the next.

As a result, we have now reached a point where repairing something is no longer the default option but something that is hard to achieve – because it is expensive, time-consuming or downright impossible. However, in order to deal more sustainably with our resources and the raw materials that we have already wrung from the earth, we need to use, reuse and recycle them – i.e. keep them in our economic cycle – for as long as possible. This cannot be achieved by recycling alone, because material recycling is itself very energy-intensive, and too many materials cannot yet be adequately processed.

What is needed, then, is a general change in the way we deal with our possessions and a revival of the repair culture. For repairs to become the default choice again, they need to be easier and cheaper. This can only be achieved if as many people as possible are enabled to make repairs. Firstly, by creating a fair repair market that does not discriminate against independent repair service providers and initiatives and in which manufacturers cannot prevent repairs. Software locks that prevent the exchange of parts or the use of used spare parts must become a thing of the past, as do massively overpriced spare parts and the very unavailability of spare parts. Instead, there will be a thriving repair sector, which will also increase local value creation first and foremost.

Secondly, we should empower more people to familiarize themselves with the inner workings of devices, to regain knowledge about the objects that surround them and to acquire manual skills and technical expertise. Young people in particular, who are given the opportunity to practice repairs at school, in their family and in extracurricular activities, could benefit from it and learn to value this kind of work. This is all the more important since the

repair sector is facing a major recruitment problem and valuable knowledge that is necessary for the future viability of our society is lost every day.

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Katrin Meyer has been coordinating the activities of *Runder Tisch Reparatur e.V.* (RTR), an association dedicated to establishing a new repair culture and a right to repair in Germany, since 2019. RTR brings together trades businesses, environmental and consumer protection organizations, volunteer repair initiatives and other actors from civil society, business and science who are committed to promoting repairs and a new repair culture.

▼ The repair sector is finding it hard to attract new talent. Valuable expertise is being lost daily.



Destroyed salt flats, exploited glaciers, irreversible desertification: Resource extraction has brought Chile's ecosystem to a dangerous tipping point in many areas, disenfranchising indigenous peoples and excluding the country and its population from value creation. We spoke with Sara Larraín of Chile Sustentable about the limits of our consumption, indispensable conditions for further extraction and an attitude characterized by respect and cooperation.

▼ Sara Larraín



# “You cannot just use up a country’s entire natural capital.”

Interview: Johanna Sydow

**Sara Larraín, let’s start with some good news: A mining tax law has been in place in Chile since May. What exactly does that mean, and what has changed as a result?**

The new mining tax law is the first tax instrument with redistributive effects. It aims to allocate more of the resources from large-scale mining in particular to the development of the country’s mining regions and its poorest communities, with a portion going to the central government. To achieve this, the taxation of large mining companies has been changed and more funds made available to the regions. The money goes into three funds: a fund for mining communities so that there is compensation for the extraction of natural capital from these communities; another fund intended to finance public investment in the 300 poorest and most vulnerable communities in the country, with amounts varying depending on per capita income; and a third fund whose resources go to the central government, the Fondo General de la Nación, i.e. the general state fund for financing research, education, public construction projects, health care, etc.

**You don’t sound entirely convinced...**

As I said, this is the first time there is any redistribution at all. With other tax instruments, such as the green tax levied on CO<sub>2</sub> emissions and local pollutants, none of the money collected – not a single peso – made it to the five affected municipalities where the 28 coal-fired power plants were located, or to other municipalities polluted by other industries. None of it, none at all, even though the money could have had a positive impact on the local healthcare system. Schools for children with cognitive deficits could have been financed with these funds, epidemiological studies, and the treatment of people with chronic illnesses caused by pollution. But none of the revenue raised by the environmental tax is earmarked for the affected municipalities. The central government collects the pollution tax and the money goes into the general state fund.

**Let’s stay with the more positive news for a moment: Chile Sustentable, your organization, was instrumental in advising on a law on the closure and decommissioning of mines. What was that about, exactly?**

This law was enacted because there are more than 500 untreated spoil tips in Chile today, some of which have been abandoned, while others are located in mining concession areas that are still active. Since there had not been a law before, no one was held responsible for the environmental damage, which is a burden for all Chileans. The new law regulates this responsibility for the decommissioning of mining sites and the environmental assessment of mining projects from the moment the first money is invested in them. It ensures that the investor will bear the costs of closure and remediation of the contaminated sites, so that these will not be at the expense of the Chilean society.

**Your country touts itself as “Chile, mining country”. That sounds rather inviting from the perspective of mining companies. What do you think about that?**

This slogan is unacceptable to us. The thing to know here is that Chile wanted to practically triple copper production, particularly the production intended for the world market. Others wanted to extract less and instead introduce a second technological stage, mimicking Australia's strategy. For at least the past five years, Australia has generated virtually the same or even more revenue with consulting services and new technology development as from mining or selling copper. There were a number of ideas to overcome the phase of purely extractive mineral production in Chile and to create a second level related to the topic of mining and the concept of a mining country.

**What did you suggest instead?**

We were advocating for mining to move into a phase of adding value, creating jobs, increasing social benefits and restoring the

environment in the affected areas. While we lost that fight, we did create a document that laid down a number of basic sustainability criteria that are a prerequisite for mining to continue in Chile. In this sense, the recently adopted mining levy is a step in the right direction.

**Speaking of value creation: what would it take to get more of that for your country?**

Value creation is only one of the elements that are important. Chile will be supplying raw materials to Germany and Europe under the updated EU-Chile trade agreement on critical minerals. This agreement, which has a special chapter on raw materials and energy, also contains language about compliance with environmental impact studies and environmental impact assessments. But there is no mention of respect for indigenous communities. The ILO Convention 169 concerning the consultation of indigenous communities is not mentioned, even though it states that these kinds of mining projects must be approved in advance by local communities. It must be noted here that, when it comes to lithium, the mining projects are located on salt flats, most of which are located in indigenous areas. It is therefore my opinion that the conditions for extraction should be addressed as the first prerequisite for access to raw materials, and only then the issue of value creation.

**What do you consider to be the most important conditions for extraction?**

Chile does not have a current territorial study. But how can you evaluate the environmental impact of mining if there is no description of the ecosystem in which the mining is to take place?

▼ El Morado hanging glacier south of Santiago, Chile



Next, the territorial rights of the indigenous communities must be taken into consideration. Lithium is mostly mined in the indigenous development area of Atacama La Grande, which contains several salt flats such as the Salar de Atacama, which is currently being exploited. These are considered indigenous development areas under Chilean law and can therefore only be exploited with the free, prior and informed consent of local communities.

**And has this consent been granted?**

By some of the affected communities, yes, but not by all of them. But how was it obtained? By providing a significant amount of money both directly to the Council of Atacameño Peoples and indirectly to the regional government. In other words, negotiations are generally not based on an adequate environmental impact assessment and respect for indigenous and cultural rights, but on money. The trade agreement between the EU and Chile does mention citizen participation and the European Aarhus Convention, which regulates access to information and is the equivalent of the Latin American Escazú Agreement. The latter became effective in 2021 and is an agreement on access to information, jurisdiction and public participation in environmental matters in Latin America and the Caribbean. But citizen participation without consideration of ILO Convention 169 can result in the result in the rights of indigenous communities being violated.

**With regard to the entire country: how would you define successful value creation?**

First of all, it would be ideal if the jobs were truly local, not just created in Santiago or more industrialized areas, or filled by Germans or Chinese working in these industries. The next question is what technology will be used. The one currently employed for lithium extraction is environmentally unsustainable. It has major negative impact on the water supply of the salt flats, which are primarily wetlands in the Andes rather than mining areas. So value creation has an environmental component, a social component; it's about working conditions, and it has a technological component that is absolutely fundamental.

**Chile and Germany reportedly renewed their raw materials partnership earlier this year, and in this context there was an agreement between the copper producer Aurubis, a German smelter and the Chilean state-owned mining company Codelco. Supposedly, this is about technology transfer as well.**

We don't know anything about this agreement and the renewal of the partnership with Codelco. Germany has long maintained technological cooperation with Chile; including, but not limited to, in the areas of non-conventional renewable energies and energy efficiency. But in other areas this is not the case. Five or six years ago, there was cooperation with Germany on sustainability in the mining sector, but nothing was implemented and there is no progress in terms of protocols or regulations. We also have not seen any new proposal for copper mining, not to mention lithium mining or other industries covered by the agreement between Chile and the European Union. Let's just take green hydrogen as an example: its production requires water, which is in short supply in Chile, particularly in the central and northern parts of the country. It must be obtained through desalination, which, in turn, is a very energy-intensive process with massive impacts on the coast. And Chile still has no guideline for the desalination process.

**Is it true that there are currently no areas in Chile where mining is not permitted? That mining even takes place in the glaciers**

**because there is no law that protects certain areas?**

Yes, that is correct. There is an environmental impact assessment process, but project after project is waved through, many of them in protected areas. The only exceptions are the national parks, which have the strictest legal protection status. To protect glaciers, uphold the rights of indigenous peoples and preserve wetlands, we have to fight each mining project individually.

**Chile Sustentable has been a strong advocate for glaciers ...**

... because for Chile, the glaciers are now the only safeguard against water shortages, droughts, mega-droughts and the decline in precipitation caused by global warming. The Maipo River, which provides 80 percent of the drinking water for the population of Santiago as well as the water for 120,000 hectares of agricultural land and all of the industry in the Maipo Valley, is 60 percent fed by Andean glaciers. As soon as the snow melts in the spring, it is the glaciers that replenish the river, thus securing the crops in the fall and the water supply for Santiago, where 40 percent of Chile's population live. Without the glaciers, there would be no water.

**Much of the copper mining takes place up near the glaciers, however.**

In Chile, copper is mined in the high mountains. Citizens' initiatives have been fighting for a law to protect the glaciers since 2006, and we have managed to introduce six bills to this purpose in the National Congress, but so far without success. Without the glaciers, there will be no water, no cities, no agriculture, no schools. Without the glaciers, there will be nothing. Chile can survive with less mining, but not with less water. It is said that a law to protect the glaciers would hamper the mining industry. But the truth is that the opposite is the case. Without the glaciers, mining won't be possible, either.

**Can you cite an example?**

The Chilean copper mining company Codelco has encroached on several glaciers. It has destroyed the Río Blanco glacier in the Aconcagua River basin and uses other glaciers as landfills, as do many other companies. About ten years ago, in 2011, Codelco applied for an expansion of the mineable area, which, according to the environmental impact assessment, would destroy 100 hectares of glacier. This led to a huge public outcry and the project was rejected. Chilean society has recognized the value of glaciers to the country's water security by now, but mining companies continue to fight legislation for their protection.

**We know that the energy transition requires metals, but many other things do as well. Yet it is always claimed that it's all about decarbonizing the economy, which ignores the fact that other sectors also contribute to high demand and that we need to think about how to reduce demand in those areas as well.**

That is the core of the problem. In Chile, 60 to 70 percent of the population do not have access to hot water for personal hygiene. In Europe, no one wants to do without indoor heating, everyone has hot water. People don't understand why they have to heat their apartments and houses in a different way, not with gas or oil or whatever. The dossier "Fairness in a Finite World" by the Böll Foundation and other organizations in several countries addresses this structural problem. This document and the analyses and proposals it contains remain absolutely valid to the challenge we face today with the energy transition, and thus for the question of whether it will be implemented in a fair or unfair manner.

“I think that is the key to a sustainable future. Otherwise, things will get worse, more tense, more geopolitically competitive, and we will end up with a kind of law of the jungle.”

**So we need to focus more on the limits of global resources?**

We need to focus more on the limits of the biosphere and, by extension, the rules for access to natural resources. However, we must not structure the discussion solely around those limits, but also on the basis of the right to development. Because the right to development also entails that you cannot just use up a country's entire natural capital.

**And what role should the Chilean state play in your opinion? Does the money from mining benefit the entire population or is it distributed as income over time?**

Mining today is primarily about the extraction and export of unprocessed minerals, without value creation. And with the exception of the state-owned mining company Codelco, the profits end up with transnational mining companies. We don't even know what all they really extract. Besides copper, gold, silver and molybdenum are mined in Chile, as well as a number of other minerals that are not documented. The revenues from the copper exports of the state-owned company Codelco go to the state treasury; that is, to the public fund for financing the state itself, education, health care, public construction projects and so on. In the case of the Codelco copper mine, virtually all profits flow into the state fund. That's why Codelco has always been referred to as “the government's wallet”, which is managed by the Ministry of Finance. The mining tax law mentioned earlier is important because it is the first instrument that has redistributive effects in the context of the exploitation of Chile's natural resources.

**Isn't there currently a new lithium strategy as well, i.e. provisions on how this raw material can be mined in a more environmentally friendly way?**

No. There is nothing really new with regard to lithium; other than that – due to global demand – the massive exploitation of lithium is to be continued, and that despite the fact that lithium mining is destroying our salt flats in the Andes. It would be important for the government to get involved, but it will only do so in order to siphon off some of the revenue, without setting conditions for sustainability. It has not imposed environmental, social, redistribution or industrialization conditions, nor has it stipulated the introduction of other technologies than those used in the past. It is our hope that the European Union will live up to its ambitions and commit the

European investment companies to high standards and rules with regard to the environment, human rights and technological cooperation.

**Significant investments from the World Bank, the Inter-American Development Bank, the KfW and the European Bank are flowing into green hydrogen. It is often said that hydrogen is needed for more value creation. Do you think will also be used in Chile's smelters or be useful in some other way?**

The same steps and standards are required for both the hydrogen and the mining industry. The difference with green hydrogen is that the industrialization process takes place in Chile, because green hydrogen is the export product. In other words, the industry is built in Chile, the technology is installed in Chile. And there is also the possibility that it will become part of the energy industry. If you want to double the national energy matrix to power the hydrogen industry, you will need a lot of land. You also need a lot of water and extensive infrastructure to generate solar and wind energy.

**If you could make suggestions to Germany and Europe at the moment about what they should do – apart from reducing consumption – to move towards a somewhat more sustainable world, what would your suggestions be?**

I think Europe needs to take a very close look at energy and material consumption in the development areas of transportation, steel, heating, and construction. The world is finite and it is not feasible for Europe to continue to expand its needs at the expense of the rest of the world's resources. Europe already has a huge ecological footprint in terms of food, energy, minerals and so on. It cannot go on like this, the planet can't cope with it. Europe must reduce its extraction needs or ecological footprint; the energy and material intensity of the European economy must be scaled back. I think that this point is crucial in terms of climate change, biodiversity, mineral consumption and everything else. I think that is the most important issue.

**Anything else?**

With regard to the things Europe needs from other countries, it must strive for a fair and equal exchange. So if Europe wants to mine lithium, it must ensure that environmental protection standards are met, human rights are respected and working conditions improved in the country of origin. There has to be cooperation in expertise and technology so that the country



can expand its capacity for industrialization and development. The countries of origin must not be condemned to be perpetual suppliers of raw materials without access to the expertise, technology and industrialization necessary to create jobs and an educated society.

**You expect a relationship of equals, an attitude of cooperation.**

**How realistic is that?**

The EU must understand that it should adopt this stance when dealing with countries it depends on. But, with the exception of some Nordic countries, such cooperation has not been widespread in Europe. As far as Germany is concerned, I would say that the cooperation with Chile in the field of renewable energy and energy efficiency has been very interesting. But that is not a general policy in the European Union. The country that supplies the raw materials must be on the same level as the country that needs them. I think that is the key to a sustainable future. Otherwise, things will get worse, more tense, more geopolitically competitive, and we will end up with a kind of law of the jungle. Democracy and development are two pillars that must never be separated. Development without democracy has no future.

**You were a candidate for president in 1999. What would you have done differently than what was done in Chile?**

Naturally, I would have immediately started reining in the mining and forestry sectors. And I would have worked on reforming the water code at the time to put an end to the water market, because the biggest problem we have in Chile today is water insecurity. Mining is threatening our water, the valleys used for

agriculture and our food. I would definitely have taken up the issue of forestry in Chile, which needs to undergo a structural change. The restoration of the water catchment areas and lost vegetation masses should be much further along by now. We are in a process of irreversible desertification, which makes the future look less than promising. We now have many environmental migrants because there is not enough water in northern Chile. It is a complex situation and I think we are far behind when it comes to water, mining and forestry policy. We could have a much better economy today if we had been disciplined about creating sustainable conditions.

**So you will have to keep on fighting.**

Yes, of course. Now and always.

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Sara Larraín is a Chilean environmental activist and director of the NGO Chile Sustentable. She co-founded the Chilean Committee for Disarmament and Denuclearization and the National Ecological Action Network RENACE, among other organizations. In the 1999 Chilean elections, she was the Green Movement's candidate for president.

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Johanna Sydow heads the International Environmental Policy Division at the Heinrich Böll Foundation. Her fieldwork on mining in Ghana, Peru and Ecuador (2009-2013) turned her into an advocate for the reduction of raw materials consumption and for binding rules for companies.

► Torres del Paine National Park is located in the Chilean part of Patagonia. The park is known for its towering mountains and the shimmering blue icebergs that calve from the glaciers.



Smelters and refineries have enormous geopolitical importance. In order to reduce dependencies on countries such as China, the EU is planning to further expand its domestic capacities. In doing so, Europe must not ignore the industrial policy interests of resource-rich partner countries and regions, but make them attractive offers.

# The bottleneck in the supply chains

by Melanie Müller and Lea Strack

While the first stage of the raw materials supply chain – the mining of metallic raw materials – receives a lot of attention, the second stage – the smelting or refining – often remains unexamined, even though it is a crucial element with regard to supply security and the traceability of supply chains. Ore concentrates from raw material mining are refined in smelters and refineries using various metallurgical processes. Only then can they be processed further into semi-finished products such as sheets, wires or pipes. These semi-finished products, in turn, are then integrated into end products such as vehicles, renewable energy systems and more.

Minerals supply chains are not only organized along these technical processing steps, but also structured geopolitically. While the extraction primarily takes place in countries of what is generally referred to as the Global South, the second stage of processing in particular tends to be located in China. According to data from the German Mineral Resources Agency (DERA), 50.4 percent of global refinery products in 2017 came from China. The PRC has strategically expanded its dominance in metals supply chains over the past twenty years and invested in the development of processing capacities.

German and European companies primarily deal with the third stage of the metals supply chain (see graphic) and are heavily dependent on imports of processed metals. This makes them vulnerable to supply bottlenecks resulting from export restrictions, trade conflicts, transportation and logistics problems and other events that affect supply chains. The Critical Raw Materials Act (CRMA), which

was introduced by the EU in March 2023, is intended to address these risks. The draft bill, which is still in the consultation and pre-legislative phase, includes, among other things, the development of processing capacities within the EU. By 2030, at least 40 percent of the annual consumption of strategic metals is to be processed within the EU, and import dependencies on individual third countries should not exceed 65 percent at any relevant processing stage.

## More smelters in Europe may lead to more recycling

Shortening supply chains can make the supply of metals required for the energy and mobility transitions more secure and help increase transparency and traceability. Direct supply relationships offer the opportunity to more effectively increase sustainability in both mining and processing. In addition, by siting smelters in Europe, the recycling of metals can be promoted as local smelters can also process materials from products at the end of their life cycle, which would be a contribution to the development of the

circular economy. The goals listed in the CRMA are very ambitious, however, and whether they can be achieved is an open question. .

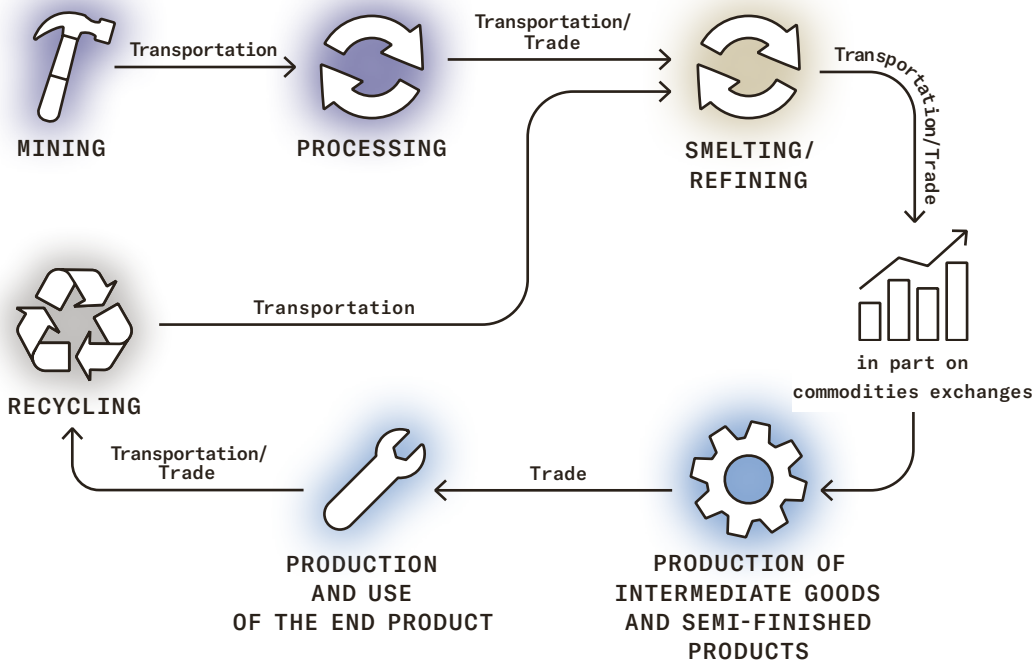
Moreover, too strong a focus on the development and expansion of processing in Europe carries the risk of ignoring the interests of resource-rich countries. In view of the current geopolitical upheaval, these countries hope to become more integrated into global raw materials supply chains. By establishing and expanding processing capacities, they want to increase local value creation and thus advance domestic economic development. The African Union (AU) is currently exploring what an African raw materials strategy could look like, for instance.

### Support for the exploration and monitoring of raw material deposits

The EU should thus not focus solely on Europe but also support resource-rich countries in building up local value creation; particularly given the fact that many metallic raw materials are mined there in the first place and/or are not stored in Europe in the quantities required. Realizing value creation potentials involves much more than increasing smelting and refining capacities. The European Union must focus not only on its own supply security, but make attractive offers that take into account the industrial policy interests of its partner countries and regions, while specifically promoting sustainable approaches. These need to be tailored to the respective local context and can provide support in different ways. They can include, for example, financial and technical support for the exploration and monitoring of raw material deposits and for carrying out feasibility studies to identify regional and local potentials for value creation, as well as creating a sustainable energy and transportation infrastructure and strengthening technical cooperation. If this approach succeeds, international raw materials cooperation can become a central element of strategic and sustainable raw materials diplomacy.

Dr. Melanie Müller is a scientist with a focus on South Africa/southern Africa at the German Institute for International and Security Affairs (SWP) in Berlin. She also leads the Transnational Governance of Sustainable Commodity Supply Chains research project and is co-head of the Research Network Sustainable Global Supply Chains.

Lea Strack works as a research assistant at the German Institute for International and Security Affairs (SWP) for the Sustainable Global Supply Chains Research Network, which is run by the SWP in cooperation with the German Institute of Development and Sustainability (IDOS), the German Institute for Global and Area Studies (GIGA) and the Kiel Institute for the World Economy (IfW).



○ Level 1   ○ Level 2   ○ Level 3   ○ Level 4

Schematic representation of the supply chains of metallic raw materials

Source: El Observatorio de Conflictos Mineros de América Latina, [www.ocmal.org](http://www.ocmal.org)

### ► Further reading:

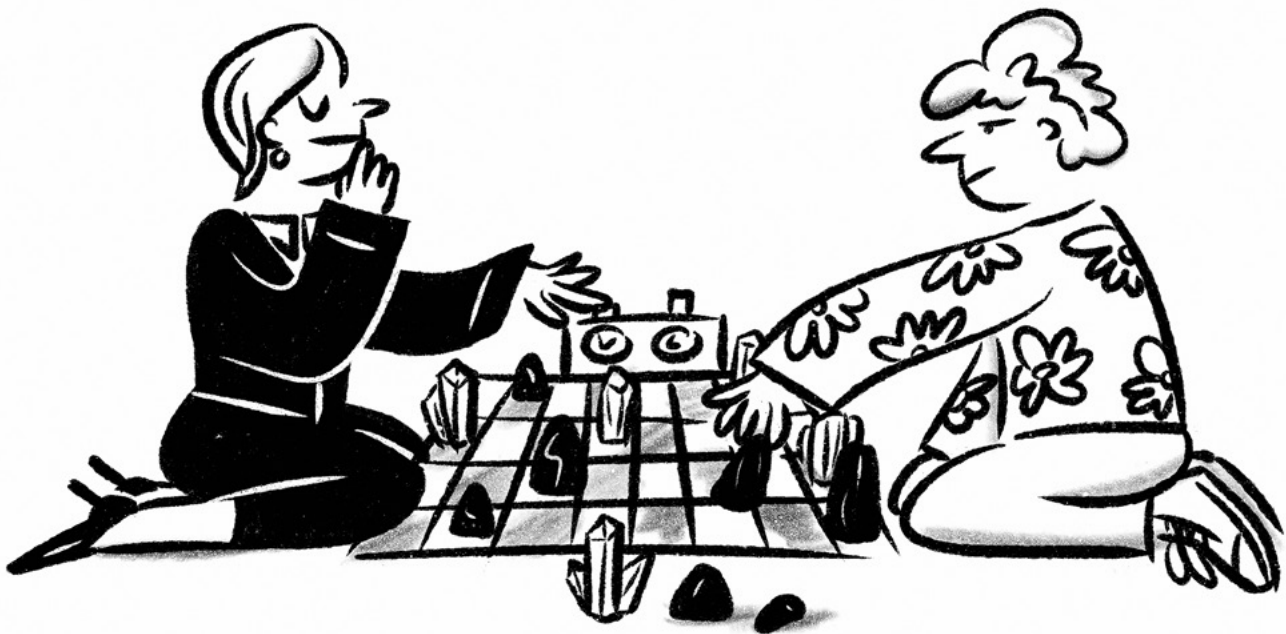
1 Melanie Müller, Christina Saulich, Svenja Schöneich and Meike Schulze (2023): From Competition to a Sustainable Raw Materials Diplomacy. Pointers for European Policymakers. SWP Research Paper 2023

2 Inga Carry, Melanie Müller and Meike Schulze (2023): Elemente einer nachhaltigen Rohstoffaußenpolitik. Partnerschaften für lokale Wertschöpfung in mineralischen Lieferketten. ("Elements of a sustainable foreign policy for raw materials. Partnerships for local value creation in minerals supply chains." In German only.) Africa and Middle East Research Group, Working Paper 2023/No. 1.

Both papers are available on the SWP website.

# In the spotlight: Europe's resource-rich countries

Recorded by: Heike Holdinghausen



The Critical Raw Materials Act proposed by the European Commission provides - in addition to recycling - for the reactivation and expansion of mining in Europe. What does this mean for resource-rich European countries? How do their civil societies feel about the run on raw materials on their doorstep? Three views from Serbia, Sweden and Ukraine.

**Mirko Popović,  
Program Director  
at the Renewable and  
Environmental Regulatory  
Institute, Belgrade**

“The Serbian government is not strategically focused on improving its position in the global competition for access to raw materials. Rather, the government’s strategy appears to be to promote Serbia as a country with favorable conditions for the exploitation of raw minerals, with weak competition rules and lax environmental regulations, cheap labor and generous subsidies. So mining won’t be making Serbia more independent of raw material imports, but rather more dependent on multinational companies and foreign partners. The situation in the Bor mining region is of particular concern. There, the Chinese company Zijin is mining copper, bypassing Serbian law and environmental regulations, and being supported in this by authorities and politicians. The authorities are unable to apply the EU environmental rights and obligations that Serbia has already adopted. The development of Rio Tinto’s lithium mining project in Serbia to date has similarly shown that the Serbian government neither applies environmental protection measures in a precautionary manner, nor is it interested in a dialogue with stakeholders. Raw materials produced in Serbia, such as copper, are exported, so mining here secures access to raw materials for powerful partners such as China. Serbian law does nothing to prevent the violation of human rights such as the right to life, health, property and an intact environment. Under the Serbian mining and geological research act, private property can be expropriated for the benefit of private investors, as it defines the exploitation of natural resources such as oil and gas, coal, copper, gold and lithium as being in the public interest. Given these weaknesses in the legal framework and a lack in capacity for the enforcement of the laws that do exist, what can we do? The only tools we have to prevent environmental damage from mining are ESG standards (frameworks for sustainability reporting), international standards for sustainable mining and, in future, the application of the EU taxonomy.”



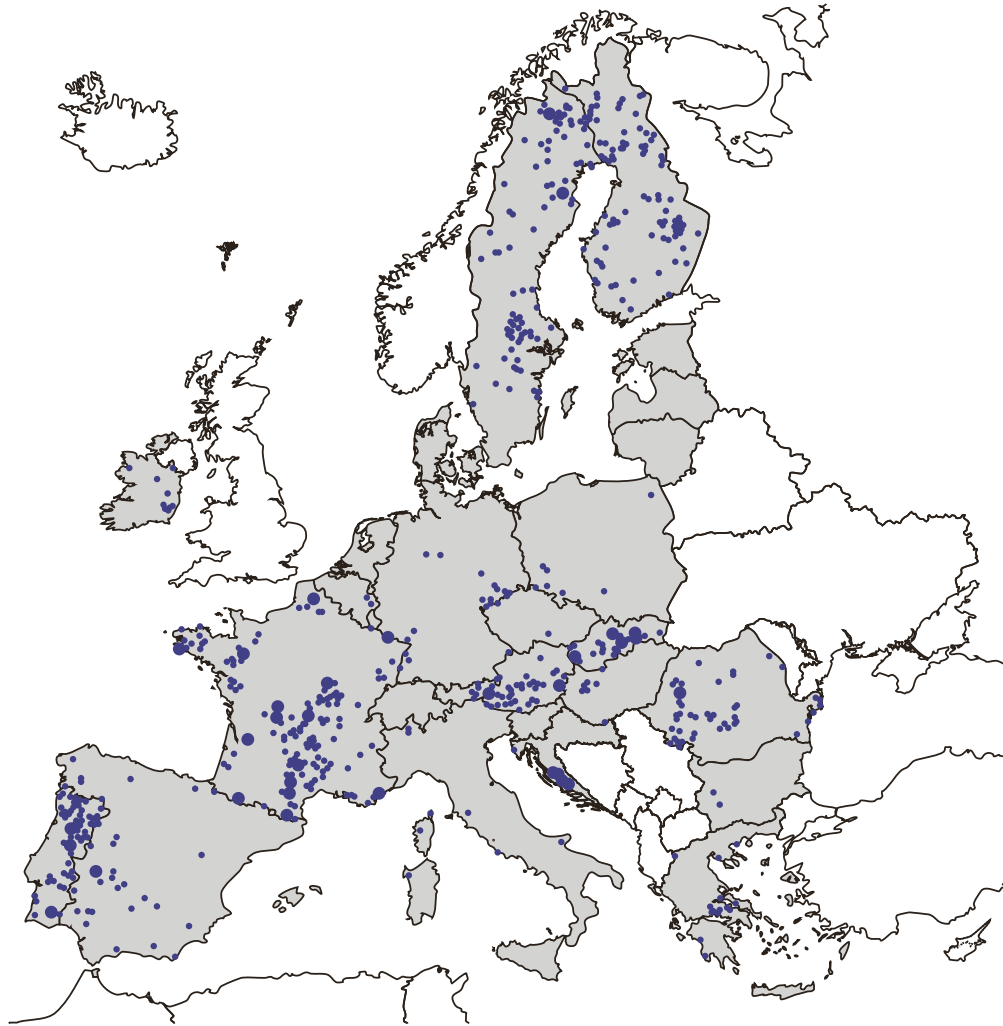
**Matti Blind Berg,  
Chairman of Girjas Sameby,  
a Sámi community in Sweden**

“We view the Critical Raw Materials Act (CRMA) with great concern. There already are iron, copper and gold mines on a large scale in our area in northern Sweden. The mining takes place on the basis of Swedish mining law, which is one of the most enforceable areas of law in Sweden. If a mining company wants to open a mine, its chances of getting its way are very good. We can object, of course, but we can virtually never prevent a mine from opening. For our community of reindeer herders, mining has devastating consequences. We do not benefit, even though the mining takes place in our region. The profits go elsewhere. We just suffer the losses: our land rights, our unspoiled landscape, our healthy environment. That is why we view the Critical Raw Materials Act with such concern. There is no doubt that the green transformation of the European economy requires raw materials – but it is not truly green if it does not take the living conditions of the indigenous communities who live in the resource-rich regions into account. We need these raw materials only to a small extent, but we do depend on intact nature. The Arctic region in particular is very sensitive, its ecosystem easily disturbed. Mining requires roads, buildings, energy. This infrastructure fragments the space we consider our home. We have attempted to bring our position into the CRMA process but to no avail so far. It would be very important, however, for the directive to take the concerns of the indigenous peoples into account. We also want for the European Parliament to put pressure on the Swedish government to finally sign the International Labor Organization (ILO) Convention 169 of 1989, which establishes the rights of indigenous and tribal peoples in independent countries. If Sweden were to sign this convention, it would also have a major impact on how the CRMA will be implemented here. It would give us more of a say and take away some of our concerns.”

## Viktoria Kovalenko, Consultant at the Dixi-Group think tank, Kiev

"I regard the prospect of increased mining activity in Ukraine as rather positive, given the way mining projects are carried out in Europe. Environmental impact assessments and the application of best industry practices mitigate negative impacts. Ukraine has a number of untapped deposits of critical raw materials, covering a total of 22 of the 34 minerals classified as critical by the EU. So it is necessary to plan for and implement new mining projects. Transparency in the procedures is of great importance. The EITI (Extractive Industries Transparency Initiative, Ed.) standards could serve as a 'golden rule' here. They have already been implemented at the legislative level and provide for mandatory publication of agreements. The exploitation of critical raw materials in Europe offers two main advantages to

Ukraine. For one, after the war with Russia, the energy system will have to be rebuilt. The plan is to rely on renewable energies. This would necessitate decentralized generation capacities, which would trigger demand for products, technologies and the corresponding raw materials. Secondly, the exploitation of our resources will reduce dependence on imports from autocracies such as China and Russia in particular. Of course, increased mining activities also carry risks. Ukraine should therefore not present itself as a mere supplier of raw materials to the EU. Investments, partnerships and joint ventures must be used to develop processing and production facilities, create jobs and to boost the economy. Our biggest challenge is still the war. Some of our deposits of critical raw materials are located near the front or are occupied by Russia. Martial law stipulates that no information about raw material deposits be released. The government is already proposing a number of areas in safe regions for the development of extractive projects, however."



Potential of critical raw material resources within the EU

Source: European Commission, Data from EuroGeoSurveys combined with other EU data sources, Brussels 2020

The European Commission aims to improve recyclability and sustainability in the handling of critical raw materials in the EU and in third countries. Its Critical Raw Material Act makes few concrete suggestions as to how resources could be conserved, and it remains just as vague on the question of how a genuine circular economy can be created and a partnership with resource-rich countries made sustainable, however.

## The Critical Raw Materials Act: an alternative to global dependencies?

by Anna Cavazzini

Europe's dependence on critical raw materials has been subject of heated debates for years and presents the EU with geopolitical challenges. In the spring, the European Commission introduced the Critical Raw Materials Act, a draft law aimed at diversifying the import of critical raw materials and strengthening local supplies. This is meant to improve the resilience of EU supply chains and address the increasing demand for raw materials to achieve climate neutrality in the EU.

### Less dependence on raw material imports

The Critical Raw Materials Act is designed to significantly increase processing capacities and the extraction of critical raw materials within the EU. An expansion of domestic mining achieved by accelerating the approval process is expected to provide greater independence from imports and secure a tenth of the supply by 2030. However, mining in the EU already causes environmental problems as it is, and often meets with local resistance. In northern Sweden, the indigenous Sámi have been fighting for years against the expansion of a nickel mine that would endanger their

environment. In the negotiations on the law, we Greens will therefore insist that accelerated planning does not lead to human rights and environmental standards being disregarded.

Mining can never be completely sustainable. Only if we curb raw material extraction in the long term can we minimize its damage to people and the environment. The Commission also wants to improve the recyclability and sustainability of critical raw materials in the EU and in third countries, but its current proposal is insufficient. Strict and strictly enforced environmental and social standards are needed for mining both in the EU and in third countries, as well as measures to reduce demand in order to minimize pressure on the sector. The current text only contains imprecise suggestions on the topic of recycling, however. Concrete measures to strengthen an actual circular economy are missing to date. This despite the fact that we are currently working on many EU laws to conserve resources – through sustainable product design, the right to repair and mandatory recycling. These are important steps on the way to a circular economy that also help reduce international dependencies.

### Partnerships on an equal footing

The EU wants to use the new law on critical raw materials to expand and diversify its cooperation with international partners. Currently, the EU often imports more than 90 percent of a critical raw material from just one third country. It aims to reduce this share to 65 percent by 2030. To this purpose, the EU wants to expand its network of strategic partnerships with resource-rich countries. In order to present itself as a genuine alternative to trading partners such as China, the European Union will have to focus credibly on economic and social development in the partner countries, as well as on high social and environmental standards for the extraction. Only then can the envisaged “win-win partnerships” materialize and function.

As part of these partnerships, the EU must therefore promote production and processing capacities within the resource-rich partner countries, for example by investing in the local manufacturing and semiconductor industries and by strengthening knowledge and technology transfer. This is the greatest weakness of the Commission's legislative proposal as it contains hardly any concrete measures to shape these partnerships. In the negotiations on the CRMA, I am working to ensure that clear rules will be set for the design of raw material partnerships: they must include binding social and environmental standards and promote local value creation. We must advocate for a realignment of European trade policy with enforceable environmental and social standards in the EU's current negotiations on trade agreements with countries such as Indonesia, Australia and Chile as well.

Raw material extraction will continue to be an explosive area of conflict in the future. Global warming and water shortages as demand increases will further intensify the pressure on the sector. The only way to create an alternative to global dependencies is by driving sustainable international partnerships and a true transition to a circular economy.

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Anna Cavazzini has been a member of the European Parliament for ALLIANCE 90 / THE GREENS since 2019. She is Chair of the Internal Market and Consumer Protection Committee (IMCO) as well as Vice-President of the Delegation for Relations with the Federative Republic of Brazil and substitute member of the Committee on International Trade. She is negotiating the Critical Raw Materials Act in the Trade Committee for the Green Party.Raw Materials Act.

“We want to be able to live with dignity in our ancestral lands.”

Fabiola Vargas, environmental engineer, Cochabamba, Bolivia

I work for the Centro de Comunicación y Desarrollo Andino (CENDA), a Bolivian NGO that helps indigenous farming communities to live in dignified conditions in their ancestral lands. The Bolivian government cares little about the rights of the people here; instead, it supports the interests of the mining sector. In the Poopó district, for example, the disposal of mining waste is monitored very poorly. Rivers that were once used for drinking water and irrigation are poisoned with heavy metals. About fifty families are affected in that area alone. They can no longer grow food, and their animals become ill or are born with deformities. Water has to be brought in over long distances, and many people eventually abandon their land and move to the city. We need for more people to organize - so that we will finally be heard.

[info@cenda.org](mailto:info@cenda.org)



# Fighting for stolen land



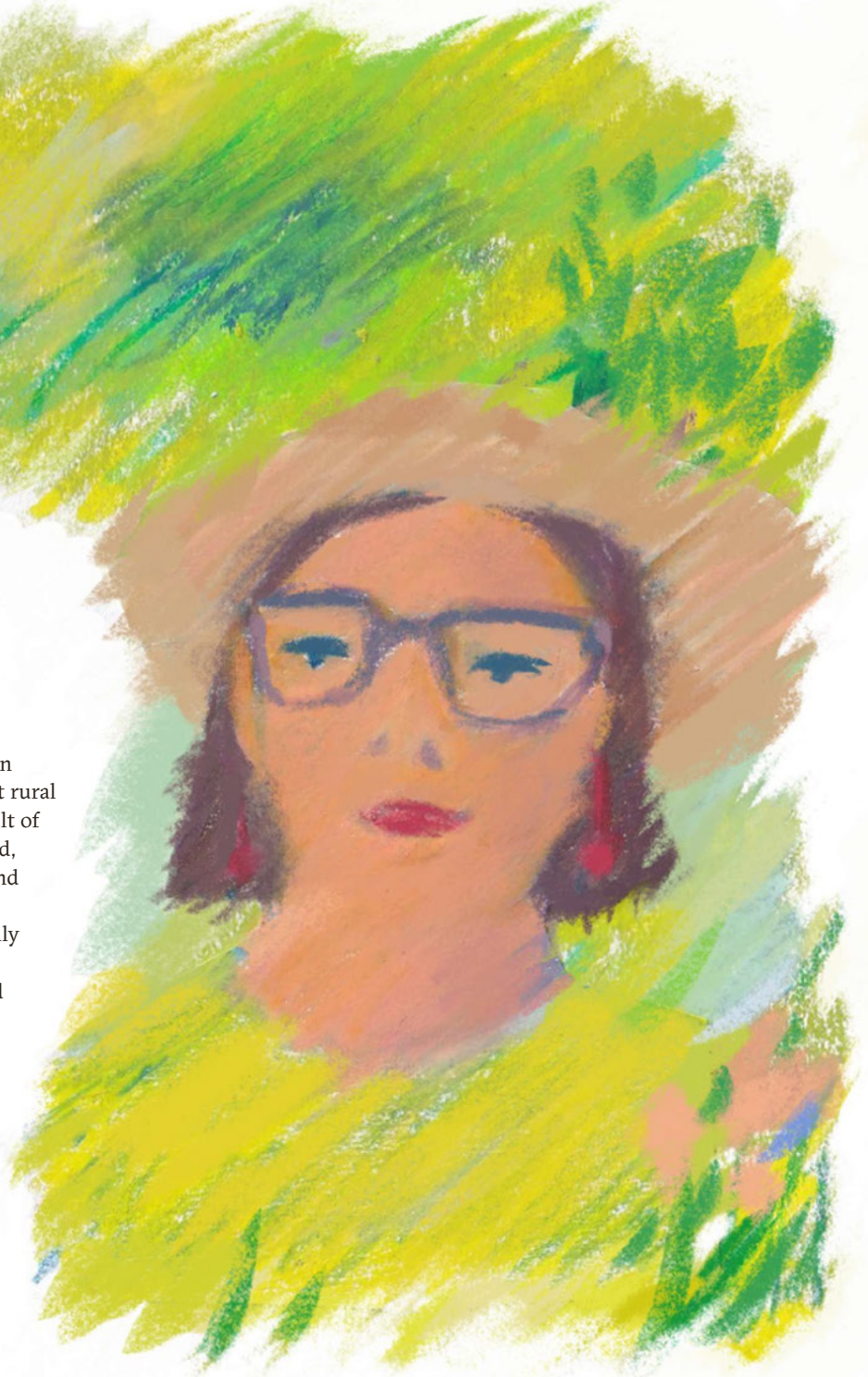
They have all experienced how companies exploit their country's resources without taking responsibility for the consequences; how people's livelihoods are being destroyed and they are being driven out of their ancestral lands. Activists from a broad range of initiatives and organizations have decided not to take this lying down. They fight against powerful companies and the inaction of their own governments. Above all, they strengthen peoples' resolve and help them realize that they are not without rights. Six examples from six countries.

**“We show our pain,  
but also our successes.”**

**Geuza da Cunha Morgado, activist,  
Marabá, Brazil**

I work for the Pastoral Land Commission (CPT) in Marabá, in the Brazilian state of Pará. We support rural people, women in particular, who suffer as a result of the largest iron ore mining operation in the world, which is run by VALE S.A. We challenge the grand narrative that mining brings development and progress for families and communities – especially as far as women, the elderly and children are concerned. In reality, many of us are being forced out of our region for the sake of the interests of large corporations. Mining changes the local economy; we women lose our land, our place to grow food and medicinal plants. The lucrative jobs go to men; profits and wealth are concentrated in the hands of powerful corporations. We encourage women to show their pain, but also their successes. We remind them that they have rights. This gives me great joy.

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**“There was so much that I did not know for the longest time.”**

**Hannah Pilgrim, social scientist and human geographer, Berlin, Germany**

Did you know that Germany is one of the largest consumers of metallic raw materials such as iron, copper or aluminum? Did you know that the mined metallic raw materials we use are almost entirely imported? Did you know that mining in particular often tramples the rights of local communities and nature in many ways? I was not aware of any of this for a long time. When it comes to metals, German politics has mainly supported the interests of the industry for many years. Since 2020, I have been active in the *AK Rohstoffe* network, the raw materials working group at PowerShift, which was founded ten years ago by environmentalists and human rights activists. We are fighting for a raw materials transition: a reduction of the excessively high metal consumption in Germany and the European Union, the rapid implementation of closed and reduced material cycles and the protection of people along metallic raw materials supply chains.

**[hannah.pilgrim@power-shift.de](mailto:hannah.pilgrim@power-shift.de)**



“Our career  
choice determines  
our carbon footprint.”

Heinrich Jung, master electrician,  
Ingelheim, Germany

I live in Ingelheim. Forty years ago I founded my company *Blitzblume* (“lightning flower” – with the lightning bolt in the logo standing for the electrical profession and the flower for ecology). Founding this company was my response to the simple question: What can I, in my capacity as a master electrician, do to protect the environment? I repair consumer goods, which allows us to use valuable resources much longer. The manufacturing industry does not do that, ever. The companies just want to sell more products. As an individual, you have a number of options to promote sustainability: through your choices as a consumer, by voting and by getting involved in initiatives. We can ask ourselves: What carbon footprint do I have or will I leave behind? And one personal decision is of particular importance for your impact on the future of our planet: your choice of career. Your work can have a real impact or benefit – and our professional life covers a very long time!

[jung@blitzblume-ingelheim.de](mailto:jung@blitzblume-ingelheim.de)



**“Despite the opposition,  
we have achieved important gains.”**

**Beatriz Olivera, director of ENGENERA A.C.,  
and Dolores Rojas, Heinrich Böll Foundation,  
Mexico City, Mexico**

Our initiative ¡Cambiémoslaya! (“Let’s change it now!”) unites NGOs, communities and academics. We want to obtain a reform of the 1992 Mexican Mining Act, which has favored economic and extractive interests for the past thirty years. To this purpose, we have prepared studies, organized discussion events and raised awareness among decision-makers in the Mexican congress. Despite the opposition from business and politics, we have already achieved quite a bit. Mining licenses are now to be issued subject to stricter conditions, social-ecological concerns must be taken into account, and environmental and social impact studies must be prepared. Indigenous communities have been granted the right to be consulted, and no mining may be permitted in nature reserves. In addition, companies are now obligated to prepare mine rehabilitation, closure and post-closure plans. There is still a long way to go towards social-ecological transformation in our country, but our successes are an important first step.

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[dolores.rojas@mx.boell.org](mailto:dolores.rojas@mx.boell.org)**

## “No decisions about women without us women!”

**Khosi Nomnqa, feminist and activist,  
Johannesburg, South Africa**

I have been a member of WAMUA/MACUA (Women Affected by Mining United in Action / Mining Affected Communities United in Action) since 2015. Women bear the brunt of the negative impacts of the mining industry in Africa. They have little chance of finding work in mining and yet bear the costs and effort of the care work that water and air pollution causes. Female smallholders lose their land to mining projects and are sexually harassed and abused. Women should have the right to inherit land, and they should be involved in decisions that affect their lives. The people in the Global North who benefit from mining in South Africa could be important allies. They could call on their governments to prevent companies from engaging in serious human rights abuses, particularly those that affect women.

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# The case of Espinar – Cusco, Peru

Dead animals and sick people, dry or polluted wells: Espinar shows that national institutions are failing to manage the consequences of industrial mining that endanger the lives of hundreds of children, men and women.



by Vanessa Schaeffer  
and Mattes Tempelmann

Señora Agripina has to get up early every morning to take her cattle to pasture. Thanks to a simple system, she has access to water in her house, which comes directly from a small spring nearby. Unfortunately, the spring water is so contaminated with heavy metals that it is harmful to health. Señora Agripina and other residents of the indigenous communities of Espinar Province – which belong to the sphere of influence of the mining company in Antapaccay – have been consuming this water for years.

Photo: Campaign "Espinar, No Puede Esperar"



### From the Andes to our cars: copper mining in Espinar

Espinar Province is located in the south of Peru's Cusco region, at an altitude of almost 4,000 meters. The areas in the Andean plateau belong to the indigenous communities of the Quechua people of the K'ana Nation, who make their living mainly from grazing and farming as well as trade.

Copper mining in Espinar started in the 1980s with the Tintaya mine, which was operated by a state-owned company. After the mine had been privatized in the 1990s, multinational companies such as BHP Billiton, Xstrata and, finally, Glencore, which acquired Xstrata in 2013, began large-scale mining at Tintaya and Antapaccay. In 2019, Swiss-based Glencore was able to extend its operation license for another twenty years, based on environmental studies. Today, this copper mine is one of the largest in the region, and Peru the third-largest exporter of copper concentrates in the world. Germany imports copper from Peru as a raw material for, among other things, the automotive industry, and now increasingly for energy infrastructure as well.

Copper mining, which adheres to only minimal environmental and social standards, has serious impacts on ecosystems and communities, particularly on the health of local communities. In order to meet increasing global demand, the mine has been expanded over the past thirty years. Glencore is the subject of numerous complaints and at the center of ongoing conflicts and severe social crises in Espinar. The complaints are not limited to Peru but are much the same throughout the region.

### The consequences of copper mining: high levels of toxic metals in blood and urine

Numerous official surveys and observational studies of native communities have reached similar conclusions: There are high levels of toxic metals such as arsenic, cadmium and lead in the blood and urine of the local population. The Peruvian National Institutes of Health, for example, found various toxic metals in the bodies of multiple residents of the thirteen communities in the area affected by mining operations. 97.3 percent of the people tested had lead in their blood. In 2018, Amnesty International conducted an independent investigation, which found that all people tested had at least one of the heavy metals arsenic, cadmium or lead in their bodies at levels above the thresholds set by the WHO. 58 percent of those tested were found to have arsenic levels above the permissible limits, for example.

### Local water sources disappear or are polluted

Further studies conducted by the Peruvian environmental ministry, the municipality of Espinar in 2013 and Amnesty International in 2018 also found that the water in Espinar is neither clean nor suitable for human consumption. The wells in communities within the area affected by mining are polluted with heavy metals and other substances. These wells represent the only source of water available to the population for direct consumption and economic activities. Several water sources have become unusable or disappeared altogether because water was diverted for the sake of open pit mining and mining infrastructure. Residents now depend on the delivery of water in tank trucks owned by the mining company. Official studies link the mining activities to the pollution of the local water sources. However, due to pressure from powerful corporations and the lack of technology and capacities in Peru, no causality studies could be performed. These would have shed light on the extent to which Glencore's Tintaya-Antapaccay mine is to be blamed for these consequences.

In view of the seriousness of the situation and the demands of the population, the Peruvian government has made efforts over the past ten years to mitigate the damage. The environmental ministry drew up plans and took measures to provide medical treatment to the affected residents and to clean up the water sources. The health ministry and local administrations developed additional strategies (in 2016 and 2019) and even declared a health emergency in the province (in 2019). Yet little or nothing has happened to date. The water sources have not been rehabilitated and the affected communities receive only sporadic and insufficient medical care. Health facilities in the affected area have neither the human resources nor the capacity to deal with a problem of this magnitude.

### Further expansions of the mining activities - without prior consultation

Despite the health emergency described above as well as severe human rights violations, mining continues unabated and is even expanding to new locations. As part of the expansion plans, Glencore has launched its new Coroccohuayco project. Including this expansion, the mine would have extraction rights to more than 23,000 hectares in the territory of 13 farming communities of the indigenous K'ana people.

This expansion of mining activities still requires the purchase of land from local communities. The municipality of Pacopata, for example, would lose 86 percent of its territory. Glencore nonetheless refuses to conduct an analysis on the impact on the collective rights of indigenous communities and to prepare a resettlement plan that complies with the Convention on Indigenous Peoples (ILO Convention 169). According to the convention, the population must be consulted beforehand and may only be resettled with its free, prior and informed consent.

### Neither government nor corporation faces up to its responsibility

Espinar shows that national institutions in mining areas are unable to deal with the impact that large-scale industrial mining has on the environment and on human rights. And so the mining operation continues to expand to meet global demand, without either the government or the mining company taking responsibility and taking adequate precautions for the resulting health consequences. At the local level in Espinar, the negative impacts of mining clearly outweigh the benefits and endanger the lives of hundreds of children as well as men and women like Señora Agripina. Against the backdrop of growing demand and a global race for critical metals on the cusp of a long-awaited energy transition, the challenges will only become greater. There will be more mining projects, and they will have negative consequences and lead to conflicts. Right now, new rules for companies along their supply chains are being negotiated in the EU. A European supply chain act could provide an opportunity to address these challenges at the regulatory level, reduce social and environmental impacts and provide more access to legal remedies for those affected. Global demand must prioritize the protection of human rights and compliance with high social and environmental standards. Only in this way will we achieve a truly sustainable and just transition for everyone.

Vanessa Schaeffer Manrique is an environmental lawyer and part of the Peruvian NGO CooperAcción and the Red Muqui network of civil society organizations. Since 2022, she has been working as an expert for relations between the Global South and the Global North at the Archdiocese of Freiburg and as a consultant for mining, governance and human rights.

Mattes Tempelmann is a geographer who lived in Peru from 2014 to 2021, where he worked as a Comundo/Agiamondo specialist for the Red Muqui network. He has been advising partner organizations in Latin America on mining, ecology and human rights for Misereor since 2021.




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► For more information on the situation of Señora Agripina as well as the situation in the communities in Espinar in general, please see:

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*Testimonials / Espinar kann nicht warten* (kampagne-bergbau-peru.de, a campaign for an effective European supply chain act, in German)



# Due diligence in supply chains: from nice-to-have to legal obligation



The German supply chain act is a step forward, and the ongoing negotiations on a European equivalent also offer some hope for greater protection of human rights, the climate and the environment. These laws alone will not suffice make the extractive sector truly fairer and more sustainable, however.

With pun-filled slogans in German (no, not necessarily a contradiction in terms), Initiative Lieferkettengesetz, an alliance of over 100 civil society organizations, campaigned for a German supply chain act since 2019. Many thought it would never see the light of day, but in January 2023, the German Act on Corporate Due Diligence Obligations in Supply Chains (LkSG) came into force. It regulates due-diligence obligations with regard to human rights in global supply chains for companies above a certain size. Since then, paying attention to human-rights issues in supply chains is no longer just a corporate nice-to-have. Even though Initiative Lieferkettengesetz and its fellow campaigners had to make many compromises along the way, the act is an important shift in paradigm.

### History of supply-chain due diligence and the basic principle of the German law

The fact that companies were able to rake in enormous profits with the production of cell phones, for example, while at the same time financing conflicts, had long left a sour taste in many consumers' mouths and been denounced by various NGOs. The pressure to act became apparent in numerous other sectors as well. Negotiations at the UN level to establish standards for transnational corporations and thereby assign them responsibility under international law had failed, however, making supply-chain due diligence a voluntary affair under the header of "corporate social responsibility".

For the mining sector, this meant that instead of having to prevent negative impacts, companies could largely decide by themselves which social benefits they wanted to provide to local communities. In other words: how much they thought they had to spend to minimize conflicts on the ground. So they built schools, created short-term jobs and negotiated with the locals how much they would pay them for the consequential damage mining did to their land and property. This was meant to deflect attention from the negative impacts of mining operations instead of limiting or even preventing them. Similarly, responsibility along supply chains was not recognized for a long time.

In 2011, John Ruggie, Special Representative of the UN Secretary-General, presented the UN Guiding Principles on Business and Human Rights, which applied the well-known principle of corporate due diligence to respect for human rights and described the essential steps for its implementation. This laid the foundation for the supply chain act. The OECD included human-rights due diligence obligations for corporations in the next version of its existing guidelines on responsible business conduct as well. Ruggie also suggested that all countries develop business and human rights action plans, setting out how they would fulfil their protective obligations. Affected parties were to be granted access to legal remedies (although this part was rather weakly worded).

### The German supply chain act – the compromise at the end of a long negotiation process

In 2013, several thousand people died in a factory fire in Bangladesh. There was no legal basis for holding Kik, a German company and one of the clients of the textile factory, responsible in any way. In 2019, a mining dam collapsed in Brumadinho, a municipality in Brazil, killing several hundred people. Only shortly before, the German certification company TÜV Süd had declared the dam to be safe. While iron ore from Brazil continues to arrive in Germany, those affected are still waiting for justice and compensation. At the same time, official monitoring by the German government revealed that only one-fifth of German companies had adequately implemented the voluntary due diligence requirements placed on them. All of this



– helped by the campaigning by Initiative Lieferkettengesetz – increased the pressure on policymakers to establish rules.

The German supply chain act is the compromise at the end of a long process of negotiations. Since January 1, 2023, German companies with more than 3,000 employees must, among other things, review their global value chains, prevent risks, take appropriate measures and report on them. As of January 1, 2024, these obligations will apply to companies with 1,000 employees or more. While the UN Guiding Principles envision a risk assessment along the entire supply chain, the German supply chain act only stipulates regular assessment for the company's own business area and its direct suppliers. A company only has to review the entire supply chain and prevent risks if it has "substantiated knowledge" of a human rights risk. How "substantiated knowledge" is defined, however, will still have to be decided by means of legal interpretation. Many had hoped for more in terms of the provisions on access to legal remedies for those adversely affected, with respect to the size of the companies subject to the act, as well as with regard to the scope of application. Some also criticize that the act allows companies to avoid penalties without actually addressing human rights risks in a sustainable manner.

### Many eyes are on the European supply chain act

There already is other legislation in place to limit the negative impacts of mining, such as the European Union Conflict Minerals Regulation and the Batteries Regulation which was passed in the



European Parliament earlier this year. However, they are either limited – as in the case of conflict minerals – to very specific human rights violations such as the worst forms of child and forced labor and the financing of conflicts, or they refer only to a specific product. Much hope is now pinned on the European version of the supply chain act, the EU's Corporate Sustainability Due Diligence Directive. Its draft was presented by the European Commission in March 2022 and is currently in the trilogue phase, that is, negotiations between the European Parliament, the Commission and the Council of Ministers.

#### **Hope for the climate and the environment? Will the financial sector be held accountable?**

The Corporate Sustainability Due Diligence Directive has been proposed as part of the European Green Deal and thus sets requirements for companies with regard to the climate and the environment. The negotiators have yet to decide, however, how effective the legal provisions in this regard will actually be. But it is precisely the duty to pay attention to the environmental consequences of mining that can make a significant positive difference when it comes to protecting health and preventing human rights violations. The financial sector must also be held accountable, since it can have important leverage in the mining sector, among others, as large sums are needed to open a mine. European manufacturers and suppliers of heavy mining equipment should also be required to insist that mine operators comply with minimum human rights and environmental

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#### ► Further reading:

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Global Business and Human Rights. Putting Germany to the Test. Report 2014. German watch, Misereor (ch. 3 on history)

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Johanna Sydow (2017): Corporate Social Responsibility as a global applicable tool to manage company-community relations in the extractive sector? Taylor & Francis

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<https://lieferkettengesetz.de/en/>

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Environmental responsibility through supply chains: Insights from Latin America: <https://eu.boell.org/en/environmental-responsibility-through-supply-chains>

standards. One topic that is still hotly debated is certification. While some, such as the German Free Democratic Party (FDP) in particular, want legislation at the EU level to allow responsibility to be outsourced to certification companies, many civil society organizations are strictly opposed to the idea. They fear that this would massively weaken the impact of the law.

#### **An important paradigm shift – but by no means sufficient**

In comparison to the German supply chain act, the EU's Corporate Sustainability Due Diligence Directive is expected to be a further step forward with regard to the respect of human rights and hopefully also the protection of the environment and the climate. How effective it is going to be will depend on more than just the ongoing negotiations, however. There will have to be verification and monitoring of the implementation. Close observation of the impact in the mining countries and potential amendments of the act will be of critical importance. In the course of the adoption of a European directive for a supply chain law, the German act will also have to be adapted. The access to legal remedies for those adversely affected, in particular, is still unlikely to be sufficiently guaranteed by the EU proposal.

Supply-chain legislation on due-diligence basis is an important shift in paradigm but it alone will not be enough. We would also need a ban on mining in areas that are essential for species conservation or water supply, and a fairer trade policy to help make the extractive sector fairer and more sustainable.

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Johanna Sydow heads the International Environmental Policy Division at the Heinrich Bell Foundation. Her fieldwork on mining in Ghana, Peru and Ecuador (2009-2013) turned her into an advocate for the reduction of raw materials consumption and for binding rules for companies.

A new supply chain act is currently being discussed at EU level, giving rise to an important question: Is it enough for companies to be certified through private auditors to show that they are adequately preventing violations of human rights in their supply chains? A conversation with Matthias Baier, the head of the German Competent Authority - EU Due Diligence Obligations in Mineral Supply Chains (DEKSOR), who has already gained initial experience with such audits.

# “Companies cannot just delegate their responsibilities.”

Interview: Claudia Müller-Hoff

## **First of all: The EU Conflict Minerals Regulation already requires audits since 2021. What is this regulation about and how is it different from the EU supply chain act currently under discussion?**

Matthias Baier: The Conflict Minerals Regulation is primarily concerned with human rights in conflict contexts. Environmental issues or social aspects such as fair wages do not feature in the regulation, which is based on the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas, which contains detailed recommendations for certain metals such as tin, tantalum, tungsten and gold. Transparency and due diligence in the supply chain are meant to prevent armed groups and security forces in conflict and high-risk areas from being able to finance themselves from trade in minerals. And, as is stated in the regulation itself: “Human rights abuses are common in resource-rich conflict-affected and high-risk areas and may include child labour, sexual violence, the disappearance of people, forced resettlement and the destruction of ritually or culturally significant sites.” While the Conflict Minerals Regulation targets one specific sector, the EU supply chain act is intended to apply to all sectors, but will not be as detailed in its requirements.

**Let’s take the Rana Plaza factory collapse or the Brumadinho dam failure as examples: faulty audits are said to have been a contributing factor. The underlying causes for incorrect or insufficient audits are often competitive pressure, poor pay and a “race to the bottom”. This does not exactly speak well for the effectiveness of these audits. In addition, audit firms are not liable for their audits and thus have no incentive to work with greater care. So why opt for mandatory audits, particularly in a high-risk sector such as conflict minerals?**

I could give you plenty more examples of why audits could be viewed critically. For instance, I could ask whether there is enough qualified personnel with knowledge of mineral raw material supply chains to audit all EU importers. But

the real question is, what is the alternative? Could a government authority inspect all importers? No. So it helps that companies have to undergo external audits. How good these audits end up being, how reliable, how independent – those are certainly questions that should be asked. And we do scrutinize these audits very critically. The reason that auditing became mandatory for the conflict minerals sector of all sectors lies in the specific characteristics of this supply chain: there are many mining operations and opaque structures, relatively few smelters and refineries, and then again many customers. So it makes sense to audit at the smelter stage. This is an approach that cannot easily be transferred to other sectors, such as the textile industry.

**Wouldn’t the quality of audits improve and the risk of fatal errors as with Rana Plaza and Brumadinho significantly decrease if audit companies could be held liable for their work?**

If these companies were liable for the consequential damage of a dam failure, for example, they would certainly become insolvent. And experts tell us that no insurance company would want to cover this kind of risk either. It is true, however, that we need as much transparency and verification as possible. So we have to verify the audits.

### What exactly do you do to verify the audits?

At present, we perform a quick check on all companies subject to due diligence requirements to determine whether the information on their websites complies with the disclosure obligations. This includes a summary of the audit reports. We use the results of these checks as well as other risk criteria, such as the origin and the transportation routes of an import, to select individual cases which we then subject to more in-depth checks. These include, among other things, a close examination of the detailed audit report.

### Why has the European Commission still not fulfilled its mandate to provide a list of recognized audit systems and a list of smelters and refineries that operate responsibly?

You would have to ask the European Commission. There have certainly been delays, not least due to COVID, when nobody could fly to China to perform a smelter audit. But it is also a high hurdle to have a certification system recognized. We were talking about the problems with audits just a moment ago.

### Can civil society actors view these audit reports and also the list of importers subject to due diligence at your authority?

If an audit is performed as diligently as we would want it to be, it will contain a lot of trade secrets. As a result, we won't be making these reports available to the public. However, companies importing these raw materials into the European market are under an obligation to publish a summary report of their audit. The most we could do is make sure that these summaries are accessible. As for the list of importers – it's rather complex. We calculate the thresholds from over 18,000 customs import data points and the number of importers fluctuates constantly. We have a preliminary table for our own checks but no final list.

### Would I be able to query whether a specific company is currently on the list?

I would have that checked by a lawyer.

### According to your 2022 annual report, your authority found violations of their obligations at many of the 145 companies required to perform due diligence. There was a lack of disclosure about how companies meet their due diligence obligations, audits were not conducted at all or resulted in audit reports that were not meaningful. Above all, the impression arises that companies rely on third parties such as audit firms, software or consulting service providers rather than systematically assessing the risks in their supply chain themselves using their own risk management. How do you explain this high level of lack of care?

Well, I don't have a crystal ball. But I think it hasn't really sunk in yet what due diligence means – regardless under which law. We see a lot of outsourcing of due diligence. To some extent, I can understand if a medium-sized company would prefer to invest its energy in an innovative product rather than in scrutinizing supply chains. And there are all sorts of providers who say: "We'll take care of this for you."

### What needs to change for the situation to improve?

The Conflict Minerals Regulation does state that importers remain responsible for their due diligence obligations, even if they use a system for simplification, for example a supply chain audit. We need a clear change in the way entrepreneurs view this issue. They have to understand that supply chain due diligence means that you really have to look at things in detail and ask critical questions, and that it calls for proper, systematic risk management. We know that this is possible; there are companies that do that. But others haven't really grasped it yet. They list pretty sustainability goals on their website, but when you take a closer look, you realize that the goals haven't really arrived in their corporate culture.

### The debate

Although it has repeatedly been made clear in the discussions about the EU supply chain act that certification must not be used to relieve companies of their responsibilities, this question remains highly controversial in the Council. The EU Commission's draft of the Critical Raw Materials Act also stipulates that, with regard to sustainability requirements, the voluntary commitment to obtain certification and preliminary evidence should be sufficient for the EU to provide companies with financial support, among other things – both outside and within Europe. Many civil society actors view this very critically and have repeatedly emphasized that audits overlook numerous issues. For example, the people affected by mining operations would not be heard. Moreover, companies often give preference to low-cost audits over more comprehensive and higher quality audits and certification systems – with corresponding risks for the environment and human rights. Certification thus becomes a mere rubber stamp – and a license to not look any closer.



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**“Ending corporate impunity requires international efforts.”**

Erika Mendes and her organization Justiça Ambiental in Mozambique fight to ensure that companies can be held liable for violations – whether or not they have conducted due diligence.

**Erika Mendes, while many people and NGOs here in the EU are fighting for a European supply chain law, you are campaigning for an agreement on business and human rights at the UN level. Why?**

We have been trying to understand corporate power and impunity for many years now. The way that large corporations invest in countries like Mozambique shows that their power is often much greater than that of our governments. The annual revenues of some of these companies amount to ten times the gross domestic product of Mozambique. In other words, there is a very large imbalance of power. This is also evident in negotiations, for example when it comes to projects that require a lot of land. There is a large imbalance of power between investors and the rural population in areas where the former want to extract certain resources.

**An imbalance of power that makes it easy for companies to shirk responsibility.**

We call this the “structural impunity of corporations”. This concept includes legal, political and economic aspects, and media and communication as well. Taken together, this leads to a preponderance of power on the part of transnational corporations, a preponderance that, as you put it, means that they can shirk responsibility – even when it comes to serious human rights violations, environmental degradation or the climate crisis. Something has to be done about that. We’re talking about transnational corporations that operate in many countries and across borders.

**National rules are not enough then to rein in the complex and powerful structures of transnational corporations?**

No. This is the reason why there have been demands for internationally valid rules for corporations for decades. It is not uncommon for corporations to try to choose a jurisdiction that suits their interests, as we have seen with Shell in Nigeria. Shell does not want to be sued before Dutch courts for environmental destruction in the Niger Delta, because the company knows, of course, that it has an easier time in court in Nigeria. We therefore need to ensure that corporations that profit from projects in countries in the Global South can be held accountable for the consequences in their home countries. The responsibility must lie with the parent companies rather than just with subsidiaries, i.e. there, where the decisions are made and where the capital comes from. This, of course, includes those who are financing such projects. This is the only way to put a stop to corporate overreach.

**A number of countries in the European Union – and probably soon the EU itself – will make human rights due diligence mandatory for companies.**

**Why is this not enough?**

In our opinion, the concept of due diligence falls short, seeing as it primarily operates from a corporate perspective and relies on making human rights part of corporate ethics. This is the wrong approach; it has to be the other way around. Human rights have to be the foundation upon which the obligations of transnational corporations are to be defined. Requiring companies to assess the impact of their investments, however carefully, is not enough and often ends up having the opposite effect. When companies meet their due diligence obligations by checking a box on a form, and human rights violations occur nonetheless, such a regulation can even serve as liability shield.

**What exactly are you asking for?**

We demand that corporations be required to provide redress and access to legal remedies in the event of violations. This is the only way that we can ensure that corporations and their decision-makers can be held liable for violations – whether or not they have conducted due diligence.

**But would an international agreement not rely on due diligence procedures to some extent as well?**

Now that the EU is moving forward with its own due diligence rules, we find that this is interfering with the UN’s intended process of reaching binding agreements. The EU has taken eight, indeed almost nine years to enter into the UN process, and yet it still has no mandate to negotiate a binding agreement here. The EU has, however, made it clear that it will only support due diligence

within the framework of existing regional regulations. This shows the extent to which due diligence procedures can potentially undermine projects such as a binding UN agreement. International agreements may also contain mechanisms for due diligence, of course, but these would be just a small component. A binding agreement must create mechanisms to allow the effective regulation of companies, and the rights of those affected must be at the heart of the negotiations. This entails that they are involved in the negotiations and the implementation of the agreement. There also has to be cooperation between the countries that sign such an agreement to ensure that corporations involved in human rights violations will be prosecuted. This involves access to information and international legal assistance.

**Could strict European laws on due diligence – including legal remedies – be a small step in the direction of the kind of agreement you would like to see?**

If you look at similar processes, you can tell that the outlook is not good. Legislative initiatives tend to be formulated very ambitiously but their intent gets diluted during the legislative process because corporations and lobbyists are not prevented from exerting their influence. Obviously, it is positive that people are trying to get companies in the EU regulated, but it seems that those in responsible positions are not really interested in solving the problem; they want a cosmetic solution. Perhaps I'm too pessimistic, but experience shows that new due diligence laws cannot be expected to translate into greater accountability in practice in our countries in the Global South, where most violations occur.

**What challenges does such an international agreement face?**

Some of the challenges are the same. Here, too, corporate lobbies and corporations try to influence the path to an agreement. They even presented “studies” that are supposed to show that the economic consequences of such an agreement would be devastating for the Global South. It basically boils down to the threat of economic retribution – namely, that corporations might pull out of the Global South. Behind closed doors, of course, they really get down to business. At the same time, it is a global process in which many countries of the Global South actively participate – not to mention social movements, civil society organizations and trade unions from around the world. This is very important because it is the only way that we can apply pressure during the negotiations to ensure that the voices of those affected are heard and that progressive experts have a part in writing the text of the agreement.

**So there is hope of negotiating an effective agreement since so many parties, so many voices are involved in the negotiations – and not just the powerful.**

**What would you like to see from European civil society?**

The negotiations on due diligence in the EU mean that many civil society organizations in Europe work towards this legislative process rather than a

binding international agreement. They don't have the capacities to do both. Accordingly the focus of their work has shifted. But the EU cannot impose its own rules on the world. It still has no mandate to negotiate a binding international agreement. I would like to see European civil society get involved in obtaining this mandate and then also in the international negotiations, because it is in these negotiations that the Global South has a voice.

**Which role should European countries play?**

I hope that they will push for progressive regulations, regulations that really address the problem of the power and the impunity of those companies that have their headquarters in Europe. Another reason that a binding agreement is important is that it would create a level playing field worldwide. Companies from all over the world would have to respect human rights. It is my hope that the European governments will recognize that companies in their countries are responsible for the most serious violations of human rights and for the destruction of the environment, and that they must regulate these companies appropriately – on a national, regional and, above all, the international level.

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Erika Mendes works for *Justiça Ambiental*, a civil society organization in Mozambique that works on issues such as climate justice, land rights and environmental justice. Mendes primarily coordinates the areas “corporate impunity” and human rights.

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Johanna Sydow heads the International Environmental Policy Division at the Heinrich Böll Foundation. Her fieldwork on mining in Ghana, Peru and Ecuador (2009-2013) turned her into an advocate for the reduction of raw materials consumption and for binding rules for companies.

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“I would like to see European civil society get involved in obtaining this mandate and then also in the international negotiations, because it is in these negotiations that the Global South has a voice.”



# Shaping value creation to be ecologically sound and socially just

The new German raw materials policy is tasked with increasing recycling and creating lasting supply security by diversifying supply routes as well as production and processing capacities. And it must ensure that resource-rich countries can benefit from their wealth.

by Franziska Brantner

In our capacity as a strong, innovative economy, we have a responsibility to secure our supply of the raw materials that we so urgently need for climate-neutral and digital technologies in an ecologically sound and socially just manner. And we have this responsibility towards the Global South in particular, as it is the Global South that often suffers from the consequences of mining, while most of the value creation takes place outside the resource-rich countries.

Raw materials such as lithium, rare earths and copper must be used as efficiently as possible, recycled or replaced by other materials. This is where the National Circular Economy Strategy (NKWS) and the European Ecodesign Directive are set to come in. The latter should make it possible to establish clear criteria across the EU with regard to the durability, reusability and reparability of products, for example. But one thing is clear nonetheless: for more wind turbines, semiconductors, heat pumps, digital electricity meters – in other words, for the technologies of the future – we will need larger quantities of critical raw materials in Europe and worldwide before recycling can do its part.

Raw material extraction and processing have an impact on the environment and are usually very demanding with regard to energy, time and capital. Decades can pass between the discovery and exploration of a deposit to the industrial use of its raw materials. The long time horizons contribute to the high concentration of power in the raw materials sector. Moreover, countries such as China have staked out strong positions in mining and processing in the past. Chinese companies, some state-owned, others state-supported, have strategically secured mining rights and processing capacities around the world, combining their investments in mining, processing and transportation infrastructure.

Our own strategy must be to increase recycling and create supply security by diversifying supply routes as well as production and processing capacities. At the same time, a natural abundance of metals or minerals must not lead to adverse consequences for the local communities, the environment or the climate. The resource-rich countries must be able to benefit themselves as well, which can be achieved by establishing further steps of the value chain locally in an ecologically and socially just manner.

As a democracy, we thus want to focus more on partnerships in order to create crisis-proof, sustainable and wealth-creating raw material supply chains with more local value creation. Resource-rich countries such as Chile or Mongolia are open to partnerships, to German investment and expertise for environmentally friendly technologies. In Chile, a state-owned Chilean company and a large German corporation have been working together since the beginning of the year to modernize copper production there and make it more environmentally sustainable. Better framework conditions and funding instruments such as a raw materials fund can help our companies diversify and seize opportunities with our partners. Fair trade agreements with countries such as Chile or New Zealand also strengthen a sustainable supply of raw materials.

Here at home, too, we have to show that environmental protection and raw material extraction can go well together. This includes the modernization of the national mining law. New technologies for raw material extraction must be brought to market maturity, so that they can then be incorporated into partnerships for mutual benefit. We are implementing the global standard of the Extractive Industries Transparency Initiative (EITI). More transparent financial flows in the German raw materials sector will send a strong signal internationally, which will also support the fight against corruption in the raw materials sector worldwide.

In times of geopolitical uncertainty and in view of global system competition between democracies and autocracies, it is important to enter into partnerships on an equal footing in order to promote sustainable development in the mutual interest – not least in the raw materials sector.

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Franziska Brantner is Parliamentary State Secretary in the German Federal Ministry for Economic Affairs and Climate Action, responsible for foreign trade, European, digital and innovation policy.



▲ Nazario Copa (left) and his family harvest crusted salt in the Salar de Uyuni in the Andes Mountains of southwestern Bolivia, the largest salt flat on earth. They are called *saleros*; the collection and the sale of salt is their main income, supplemented by raising llamas and growing quinoa. The indigenous people to the north of the salt flat fear that they will never be able to benefit from the wealth that mining in their country generates. Lithium, which is far more lucrative, is dissolved in brine found deep underground.

# Protected in theory, exploited in practice

Their collective rights are recognized and enshrined in international agreements and national laws – yet indigenous communities still suffer immensely from the consequences of invasive mining projects that harm the soil and the water quality, destroy biodiversity and the cultural identity of local communities. To bring about change, Europe must not only assume political responsibility, but also reduce its own consumption of raw materials.

In the early stages of colonization, indigenous peoples were not yet deprived of their land titles and communities could still use their territories communally. With the spread of colonial tyranny and the consolidation of the extractivist economic model, this changed rapidly. The colonial masters brutally appropriated indigenous land that had been collectively managed as well as indigenous labor, which led to a demographic catastrophe. It radically changed the living conditions of the indigenous population and excluded them from decisions about commons. The end of colonial rule did not mean, however, that indigenous peoples regained their rights and the control over their ancestral territories. Only in recent decades has the increasingly strongly organized indigenous population succeeded in asserting its political demands for autonomy and self-determination as well as for recognition of pluralistic legal concepts or even plurinational states – such as in Bolivia and Ecuador – and in regaining or defending its territories. The constitutions of numerous Latin American countries have been amended, obliging the state to restore self-government of indigenous territories, for instance in Colombia, Panama, Bolivia and Ecuador. Simultaneously, the collective rights of indigenous peoples have gained increasing recognition at the international level. A prime example is the Indigenous and Tribal Peoples Convention of 1989, also known as ILO Convention 169, which was further strengthened by the United Nations Declaration on the Rights of Indigenous Peoples in 2007. In theory, both host and home states of extractive companies are now legally responsible for ensuring that economic activities do not violate the human, environmental and cultural rights of these peoples and that participation rights – at all stages of project planning and implementation – are guaranteed.

#### **Limited access to the judicial system**

The reality often tells a different story. Lack of information and monitoring undermines free, prior and informed consultations. Given the limited access of indigenous communities to the judicial system (due to racial discrimination, language barriers, lack of knowledge of legal instruments and limited economic resources) and the lack of autonomy of the courts, companies can still count on lenient penalties or acquittal for violating human rights or environmental standards. As a result of economic priorities and the urgent need to attract foreign investment to service debt, countries often restrict hard-won rights and allow companies to operate with impunity. It often happens that even countries that have signed the ILO Convention 169 only recognize the results of a consultation process as legally binding if it was carried out by a state institution or on the basis of state requirements.

This paves the way for invasive projects that often lead to serious and protracted conflicts as they go hand in hand with a dramatic deterioration in soil and water quality in the affected communities

and the loss of biodiversity as well as the loss of cultural identity and (traditional) knowledge on the protection of ecosystems. Conflicts have long since ceased to be limited to the raw materials sector. Between January 2010 and September 2020, the Business and Human Rights Resource Center registered more than 2,300 complaints of human rights violations in 17 Latin American countries against companies developing renewable energy megaprojects in indigenous territories. Extractivist industries also engender gender-based violence: sexual assaults in the context of mining and other megaprojects are commonplace. These projects also benefit from the unpaid and thus invisible care work of indigenous women and girls. The Inter-American Commission on Human Rights has issued numerous statements condemning extractive projects for undermining the fundamental rights of indigenous peoples, such as the right to collective ownership of their lands and natural resources, cultural identity, health and protection from forced displacement. It has called for the ratification and implementation of ILO Convention 169 and other international regulations.

#### **New legislative initiatives with many shortcomings**

The new legislative initiatives of the European Union, such as that aimed at reducing deforestation and the EU Critical Raw Materials Act, have many shortcomings. The former only obliges companies to comply with the laws of the country of origin rather than with international standards. The latter focuses primarily on securing the supply of raw materials and reducing dependence on individual countries. Shortened time periods for environmental impact assessments could lead to a violation of the consultation and participation rights of indigenous communities – not to mention the fact that indigenous rights do not even feature in the act. This is in blatant contradiction to the declarations of the European Parliament, which have emphasized that the rights of indigenous peoples should be more robustly protected and their effective involvement in decision-making processes ensured.

Europe should not only condemn the increasing number of extrajudicial killings and the persecution, intimidation and criminalization of indigenous peoples and remind countries of their obligation to guarantee their rights, but also be prepared to question its own way of life and contemplate ways to drastically reduce the consumption of raw materials in the European Union.

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**Ingrid Hausinger is the Program Coordinator for Social-Ecological Transformation at the Heinrich Böll Foundation office in San Salvador. She has worked on issues of environmental governance and climate and gender justice in Central America from an ecofeminist perspective for 15 years.**

It is long overdue that countries that extract or import raw materials establish clear standards and responsibilities for dealing with the consequences of mining. From the perspective of sustainability, most of the damage caused should no longer be tolerated at all.

# Columns of smoke, resistances and ruins

by Andrés Ángel

There is no shortage of examples for lasting damage caused by mining: In the Canadian province of Nova Scotia, a single waste heap from a mining project is expected to leak acidic water for 9,229 years. Following the collapse of a tailings dam in Brumadinho in 2019, researchers in Brazil noticed changes in the microbiome of the Paraopeba River, including a newly developed resistance to antibiotics. Since 2011, coal seams have been burning uncontrollably in a disused mine under the South African township of Wesselton, leaving cracks in the landscape and sending up columns of smoke. In Pilbara in Western Australia, mining giant Rio Tinto destroyed a 46,000-year-old Aboriginal historic site while expanding a mine. Parts of the Ruhr valley in Germany will forever be dependent on water treatment and constant pumping operation.

Every year, new bodies are created to further develop standards for managing the long-term consequences of mining, such as the Global Tailings Management Institute in London, whose foundation was supported by the United Nations Environment

Programme and companies committed to responsible investment. But these institutions cannot manage abandoned mining infrastructures themselves – this is and remains the responsibility of the individual countries concerned. Another example of how challenging and costly the long-term management of the environmental impacts of mining can be was provided by the Director of Environmental Policy at the South African Department of Mineral Resources and Energy. He estimated in 2007 that rehabilitating the country's 6,100 abandoned mines would take about 800 years and cost about \$6.87 billion. For context: South Africa has only been a republic for 61 years and the estimated amount represents 1.64 percent of its gross domestic product in 2021.

## **Sourcing raw materials at the expense of sustainability in developing countries**

Regulating the consequential damage of raw material extraction at mining sites has long been neglected and is now more urgent than ever, particularly in view of a global, equitable energy transition and the containment of global warming. The fact that we need to replace fossil fuels must not be an excuse to procure the raw materials needed for this purpose at the expense of sustainability in developing countries.

In many countries, particularly in the Global South, there is not even a definition for documenting lasting consequential damages from mining and assessing the costs – let alone rules, strategies or regulations for handling them.



▲ After the collapse of the Brumadinho dam in the Brazilian state of Minas Gerais in 2019

Monitoring and mitigation are very costly. This is extremely concerning as these damages represent not only an environmental problem, but also pose enormous economic and health risks to the surrounding communities.

Unfortunately, some interest groups ignore this problem or actively oppose any attempts to regulate mining – or even just to put the issue on the public agenda. During the public debate about the public discussion on the new Ecuadorian water act (2021), the Chamber of Mines sent a letter to the president of Ecuador's National Assembly and to its Natural Resources Commission, in which it argued that placing the burden of proof regarding the consequential damages of mining on the mining companies would be contrary to the presumption of innocence. According to the letter, the concept of consequential damages was not defined in Ecuadorian law (which was the very reason for the new regulation) and it was discriminatory to specifically target metal mining. Some companies, universities and even public institutions in Colombia have engaged in similar propaganda efforts to discredit the concept of consequential damages per se and to deny that they even exist, despite the overwhelming evidence to the contrary.

#### **Obfuscation of environmental and socio-cultural effects**

These companies apparently regard it as subversive to inform the public of the full costs of mining. They feel discriminated against when strict legal frameworks are demanded and view the application of the “polluter pays” and the precautionary principle as hostile to technology. They would prefer to continue to obscure the lasting environmental and socio-cultural impacts and pass on the costs of monitoring and mitigation to the public once the deposits are exhausted.

All of this goes to show that, for one thing, the source countries must urgently meet two demands: First of all, they need to establish clear standards and methods for assessing the lasting impacts of mining on water quality and other natural resources, including participatory decision-making processes. Secondly, they must explicitly prohibit lasting consequential damages in both areas. The purchasing countries, for their part, must be required to conduct adequate due diligence and to continuously advocate for local regulations that are at least as stringent as those in their own countries.

Only by implementing these necessary and urgent changes can we achieve a better design of mining projects, prevent those projects that do not meet the requirements and move closer to our goal of environmental justice.

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Andrés Ángel is a Colombian geologist with more than ten years of experience in assessing the socio-ecological impacts of extraction projects, particularly in the mining sector. He has worked as a consultant in the civil society sector and in academia in both Latin America and Europe.

# The path to a globally just circular economy



The circular economy is an approach for a sustainable economy and a good way of life, as well as an actionable response to the triple planetary crisis – global warming, loss of biodiversity and pollution – and not least a solution to an increasingly uncertain supply of raw materials. How could it be implemented on a global scale?

Circular economy means making circularity principles the norm in all areas of life and business. These principles are described by the ten-rung R ladder. Refuse, Rethink and Reduce form the top rungs of the ladder; in its middle are various methods of closing the loop in the use phase of products (Reuse, Repair, Refurbish, Remanufacture, Repurpose) and at the bottom is Recycling as the penultimate stage before the recovery of energy (Recover). The ground on which the ladder stands marks the boundary to the linear economy which we primarily follow at the moment. The linear economy is characterized by high consumption of resources in the sense of a depletive use of raw materials: They are disposed of as waste, occur in such small quantities in various products or are so finely dispersed in the environment, e.g. in the form of emissions, that they cannot be recovered.

What might a circular world economy look like that meets the high expectations of living and doing business in a globally equitable manner and within planetary boundaries? An undifferentiated global application of the 10R principles would not be enough to achieve it; additional conditions, action targets and, undoubtedly, contributions from other policy areas (including energy, climate, nature conservation, environmental protection, trade) would be necessary.

Three conditions are essential:

- a focus not only on products and their life cycle, but also on the material flows of the entire economy in order to set the right priorities;
- the establishment of an impact relationship, i.e. evaluating the success of any measures based on their impact on the protection of the climate, biodiversity and the environment as well as on the raw material supply – the circular economy is not an end in itself;
- ensuring social justice nationally and globally, through fundamental reforms of the world trade and monetary systems, among other things.

The principles and conditions described can be universalized; the following action goals must be adapted regionally to income levels, economic structures and individual development paths toward achieving the 17 United Nations Sustainable Development Goals.

- The world's poorest countries operate within planetary the boundaries due to poverty. They must develop their economic systems to meet basic needs and ultimately provide everyone with the possibility of living a good life within the planetary boundaries. This requires additional quantities of material, including construction minerals. Since the anthropogenic material stock (the material bound in products, infrastructure, buildings and landfills/dumps) of these countries is still very small but growing strongly, the required materials are largely taken from nature. These economies can nonetheless be circular by fundamentally taking circularity principles into account in the extraction of primary raw materials and in the further development of their economic system in order to avoid structurally exceeding a sustainable level of resource consumption.
- Growing countries have only just exceeded the planetary boundaries or are about to do so. They make up a large portion of the world's population, and the rapidly growing group of global middle-class consumers is a major driver of resource demand and emissions worldwide. They continue to grow in a circular fashion to meet societal needs at globally equitable levels of resource consumption. They need structural materials (e.g. steel) and increasingly functional materials (technology metals) in order to further develop their industrial society and to leave the linear development paths they have taken in the direction of circularity.
- The needs in saturated countries are, on average, met – by means of an excessive consumption of resources. Circularity is the key to substantially reducing this consumption to a level that can be generalized globally. This not only means more circularity of products and materials, but above all less linearity (by not burning fossil raw materials, for instance). This will require predominantly functional materials – and more sustainable lifestyles.

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Even if all raw materials could be recycled, this alone would not be enough to meet the rapidly growing demand. It is crucial that all options for waste prevention and reuse be exhausted and products and infrastructure used for as long as possible. In addition, these must be designed to be durable and easy to repair.

# The circular economy: recycling is only the third-best option

by Johanna Sydow and Luisa Denter

Current demand for lithium, cobalt, copper and rare earths is increasingly being described as an international race. The European Commission even considers access to such raw materials to be a question of European sovereignty. So, is recycling the solution to securing raw material supplies, preventing harm to the environment and human rights violations, and becoming less dependent on raw material imports from China and other third countries?

## Recycling beats prospecting

In Germany's waste hierarchy, recycling is only the third-best solution, because even if the utopia became reality that almost all raw materials that are technically recyclable would actually be recycled, this would not be enough to cover the rapidly growing global demand for raw materials. In addition, repeated use cycles of a material do not come for free: They cost energy, water and, where applicable, chemicals for reprocessing. There is also a loss of quality due to increasing impurities and of the material itself, as usually only a small fraction of the material can be recovered from a product. We must nevertheless advocate for this third-best option as well, as recycling is still miles ahead of the extraction of primary raw materials. And it has significant potential: According to a study by the North Rhine-Westphalia Office of Nature, Environment and Consumer Protection (LANUV), eleven kilograms of smartphones contain the same amount of gold as one ton of gold ore.

There is still a lot of room for improvement as well. The global recycling capacity for electronic waste, for instance, can only accommodate 25 to 35 percent of the total volume of waste, which is increasing rapidly. Recycling rates do not reach the levels that are already technically feasible. The recycling rate for some raw materials such as gallium or silicon metals, materials which the EU classified as critical or strategic, is zero. This has a number of reasons. Some examples: There are easily accessible, well-functioning collection systems for only very few products. In addition, many products are built in a way that makes them nearly impossible to take apart. Metals are used in alloys, which makes it difficult to achieve single-variety material streams in recycling. They often occur in minute quantities, such as in electronic tags in clothing or toys. Some complex but effective recycling processes are not widely used because they are deemed uneconomical.

## Maximizing service life and reducing resource requirements

These limitations of recycling illustrate that the circular economy will have to rely on other measures. Following the waste hierarchy, all options for waste prevention and reuse should be exhausted first. This means that the cycles must be slowed down: Products and infrastructure must be used for as long as possible in order to minimize resource-intensive new production. Products must be





▲ Swiss brand “Freitag” has developed the first backpack made entirely from one single material.

designed to be durable and easy to repair. Policymakers have a role to play in promoting conditions for long-term use and repair. Taking the example of electronic devices, however, it is clear that many companies deliberately design their products to have a short service life. Wearing parts that cannot be replaced, a lack of software updates and aggressive marketing are just some of the strategies they employ to this end, for example in the IT sector. Apart from waste prevention and reuse, the demand for raw materials must also be reduced in order to prevent environmental damage and human rights violations caused by mining projects and to achieve better supply security. So we need strategies that go beyond a circular economy, including a mobility transition that relies on fewer and smaller cars with smaller batteries and the practice of sharing and lending products rather than everyone buying their own.

#### Political processes towards a circular economy

Unfortunately, not even politicians have internalized this sufficiently yet. Too often, recycling is still the (almost sole) focus when it comes to the circular economy, in particular with regard to providing funding (see also the article on the Critical Raw Material Act, p. 29).

Some political steps in the right direction can be observed but they do not yet go far enough: With its Ecodesign Directive, the EU aims to make long-lasting, repairable and recyclable product design mandatory. It is also planning a directive to promote repairs - but

the Commission's proposal ignores key barriers for repairs such as replacement parts that are expensive or difficult to obtain.

The German environmental ministry is currently developing a national circular economy strategy. This is a great opportunity to advance and strengthen strategies for long-term product use, reuse and demand reduction. However, the policy paper prepared for the strategy gives rise to concerns that the focus in detail and funding may once again be on the third-best option: recycling.

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# A viable path forward

The mobility transition offers the opportunity for a new regenerative economic model that does not repeat the mistakes of fossil fuel era. To rely solely on electric cars now would be heading in the wrong direction. A central component of a just mobility transition would be to end dependence on private cars, expand public transportation and promote healthy and active mobility options such as cycling and walking in cities as well.

Text: Alejandro Gonzalez



That we need to phase out the use of fossil fuels and think about alternative means of transportation is obvious. However, the current push towards electromobility, with its focus on private vehicles, is heading in the entirely wrong direction. It does nothing to solve the climate crisis in a just and equitable way. While the use of electric vehicles is largely emission-free, their production causes significant damage, particularly in the countries where the minerals for their batteries are mined. Their production damages the environment and violates the rights of local communities and indigenous peoples in the mining areas and along the supply chain. In addition, Europe, the United States and China are exerting increasing pressure to secure critical raw materials for themselves, which makes the situation even worse.

The approach of the West and China to the energy and mobility transition also exacerbates global inequalities. In 2021, 94 percent of all electric vehicles were sold in China, Europe and the United States. These regions will continue to dominate more than three-quarters of this market in 2030. In 2021, they also accounted for nearly 90 percent of battery production capacity. This share is forecast to rise to 95 percent by 2031. Manufacturing is one of the most lucrative parts of the lithium-ion battery value chain, with projected sales of \$121 billion by 2030. The lion's share of this is generated by just a handful of companies that dominate the market. Benchmark Minerals

◀ The Quais de Seine in Paris were opened to pedestrians and cyclists in 2012. ▶



expects the top nine companies to control 52 percent of production capacity by 2031. By contrast, other regions, mostly in the Global South, bear the brunt of the negative impacts.

Wealthy nations continue to procure minerals and metals within a neo-colonial economic framework in which resource-rich countries remain mere suppliers of raw materials to meet demand and guarantee the unsustainable lifestyles in the Global North. Many of these countries lack access to the technologies needed to extract their own natural resources. Neither do they have the necessary infrastructure and financial resources to manage their own mobility transition.

#### **Alarming concentration of power in a small number of companies**

Government support for manufacturers of electric vehicles and batteries further exacerbates inequality. In their relentless race for critical raw materials and economic dominance in the mobility transition, China and the West support their multinational corporations with taxpayer money in the form of subsidies and tax breaks. Germany, for instance, is pouring public money into Northvolt, a company that develops lithium-ion batteries for electric cars and energy storage.

This kind of policy strengthens the dominance of large Western and Chinese companies and leads to an alarming concentration of power among a small number of companies, which convert public money into private profits and, at the same time, let the local communities, the workforce and the environment deal with the negative impacts of the extraction and production of raw materials.

The fact that the global number of vehicles (including gasoline- and diesel-powered vehicles along with electric ones) is expected to continue to grow – from 1.6 billion in 2022 to 1.7 billion in 2030 – is a further concern. Given this continuing increase, it is very unlikely that the transportation sector will reduce its emissions in line with the 1.5- or even the 2-degree threshold.

#### **Promoting public transportation and active mobility options**

We have failed to take action against unsustainable energy and raw material consumption so far – and this is the core of the climate crisis. Astonishingly, the transition to clean energy and sustainable mobility is now characterized by exactly the same unsustainable production and consumption patterns.

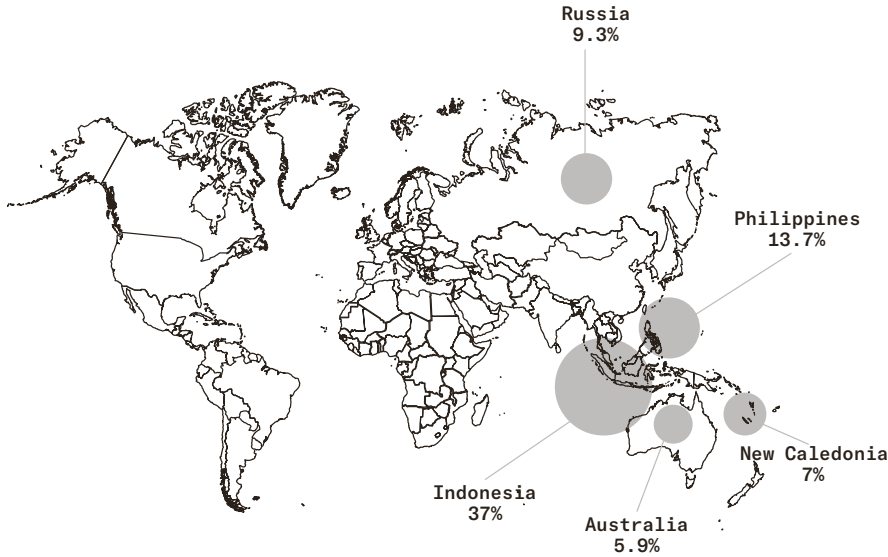
The expansion of clean and efficient public transportation would be central to a just mobility transition. It would also be necessary to ensure that there are fewer and smaller private cars on the roads. The International Transport Forum (ITF), an intergovernmental organization with 64 member countries, warns against relying too heavily on electric vehicles as a solution to decarbonize the transportation sector and stresses the urgent need to reduce the dependency on private cars.

According to the ITF, urban transportation emissions (which account for 40 percent of total passenger transportation emissions) can be reduced by 80 percent by 2050 through a package of measures that would reduce private and promote public transportation. These measures would reduce the dominance of private cars in urban areas in favor of public transportation and active mobility options such as using buses and bicycles and walking. It would entail ensuring that motorists pay the actual costs for parking and driving and introducing shared mobility services such as car sharing and carpooling. In its summary for political decision-makers, the report by the Intergovernmental Panel on Climate Change (IPCC) also emphasizes the importance of cities promoting public transportation and active mobility options.

**More ambitious promotion of the circular economy**

The EU is making progress towards a circular economy with the Batteries Regulation and other frameworks for reducing raw material consumption, but these measures are still too limited and not far-reaching enough. Environmental organizations are pushing for more ambitious targets to significantly reduce raw material consumption. While fewer and smaller

electric vehicles and significant advances in the recycling and reuse of materials could substantially reduce the demand for minerals, they will continue to be needed worldwide to some extent. Carefully considered and effective laws protecting human rights and on corporate environmental due diligence are crucial to ensure that the damage caused by the extractive sector in the past is not repeated. Such laws will have to be binding, hold companies accountable and at the same time provide adequate remedies to injured parties. Only in this manner can a juster transition to more climate-neutral mobility be achieved.



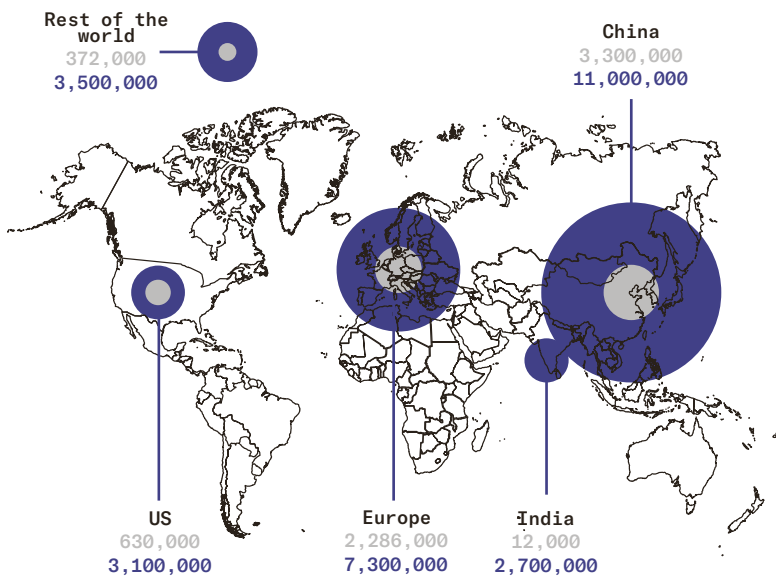
These five countries produced 72.9 percent of the world's nickel in 2021.

Source: USCG Mineral Commodity Summaries 2022

**A move away from the incentives that are driving the electric car boom**

The international community must develop a comprehensive strategy to reduce the global wealth gap, if all countries are to benefit from clean and sustainable transport. While the problem goes far beyond electric cars, if this market continues to develop as it has to date – with only a few countries and multinational corporations dominating resource consumption and driving demand ever higher – the reduction of global inequalities to which all countries have committed under the 2030 Agenda and its Sustainable Development Goals (SDGs) will remain an unattainable dream. A paradigm shift away from ever-growing individual car use will require a whole new economic model and a move away from the incentives for companies that are driving the electric car boom.

Neither the West nor China should tolerate exploitation and disregard for human rights in the countries where the raw materials required for their mobility transition are extracted. Instead, they should focus on making do with significantly fewer and smaller private vehicles in future. The mobility transition offers the opportunity for a new economic model that does not repeat the mistakes of fossil fuel era and does not harm local communities and the environment. It offers an opportunity to work towards a regenerative economy and leave behind an extractivist one based on mining, exploitation and concentration of power.



Alejandro Gonzalez is a researcher and activist in the climate justice team of The Centre for Research on Multinational Corporations (SOMO). He focuses on raw materials, supply chains, the energy transition and corporate responsibility and has extensive experience researching supply chains across multiple industries, such as mining, batteries, automotive, consumer electronics and renewable technologies.

● Sales in 2021 ● Expected sales in 2023

Sales of electric vehicles are expected to quadruple over the next ten years.

Source: IEA Global EV Data Explorer (stated policies scenario)

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## Publications

### 12 Arguments for a Raw Materials Transition

We need a raw materials transition: The wide range of human rights, environmental and development problems caused by extraction, processing, consumption and use of raw materials will not be solved with more efficiency, better recycling systems, new technologies and good governance alone. In this paper, eight environmental, human rights, climate and development organizations explain why we need a paradigm shift and back their arguments with facts and figures.

[boell.de/en/12-arguments-raw-materials-transition](https://boell.de/en/12-arguments-raw-materials-transition)

### Transformation by design, not by disaster

Civil society actors call for a reduction in primary resource use.

[boell.de/de/transformation-by-design-not-by-disaster](https://boell.de/de/transformation-by-design-not-by-disaster)

### What use is the (D-)EITI? The Extractive Industries Transparency Initiative in Germany under scrutiny

The international initiative for a transparent extractive sector and its German implementation have generated little public interest. The D-EITI (Extractives Industries Transparency Initiative) and its reports are also little-known in the German NGO world. The paper gives an overview of the structure and functioning of the EITI, the implementation of the EITI in Germany and assesses the content of the EITI reports so far from a civil society perspective.

[boell.de/en/what-use-d-eiti-extractive-industries-transparency-initiative-germany-under-scrutiny](https://boell.de/en/what-use-d-eiti-extractive-industries-transparency-initiative-germany-under-scrutiny)

### Downstream due diligence A must-have for the EU's Corporate Sustainability Due Diligence Directive

[boell.de/en/media/image/policy-brief-downstream-due-diligence-cover](https://boell.de/en/media/image/policy-brief-downstream-due-diligence-cover)

### Environmental responsibility through supply chains Insights from Latin America

This study emphasizes the importance of binding legislation for companies to comply with environmental aspects in addition to human rights along their supply chains.

[eu.boell.org/sites/default/files/2022-03/Environmental%20responsibility%20through%20supply%20chains.pdf](https://eu.boell.org/sites/default/files/2022-03/Environmental%20responsibility%20through%20supply%20chains.pdf)

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## Series on Ecology

### Coal, Capital and Conflicts The Rampal power plant in Bangladesh, the protection of the Sundarbans and the role of German companies

The Sundarbans are the largest contiguous mangrove forest area in the world. They are a UNESCO World Heritage Site and cover a large part of the Bangladesh coast. This unique ecosystem is under massive threat: Only a few kilometers north of the protected area, the Rampal coal-fired power plant is being built. In the future, about 200 container ships per year will cross the mangroves to supply the power plant with almost 4 million tons of imported coal. Waste and pollutants threaten the regional ecosystem and the population. The construction is being justified with the necessary industrialization of the country.

[boell.de/en/coal-capital-and-conflicts](https://boell.de/en/coal-capital-and-conflicts)

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## Radionovela

### Tierra de Agua

This 40-episode audio series tells the story of a fictitious community – including many politically active women – and their fight against a planned gold mine by means of a local referendum. The story is partly based on actual events and current problems in the country: Lack of transparency in the approval of large-scale projects, land theft and violence against social leaders.

[co.boell.org/es/santa-maria-de-la-luz](https://co.boell.org/es/santa-maria-de-la-luz)

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## Study

### Value Addition in the Context of Mineral Processing

To achieve decarbonization, the rush on a number of metals and minerals, categorized as “critical” by the European Union has taken up speed. The EU approaches resource-rich countries with the prospect of value creation in those countries which seems to promise higher revenues. This report takes a closer look at metal processing on the basis of six exemplary metals in different countries: What does value creation mean? Are there best-practice examples of green refining? What policy recommendations can be derived?

[boell.de/en/value-addition-context-mineral-processing](https://boell.de/en/value-addition-context-mineral-processing)

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## Atlas

### Plastic Atlas Facts and figures about the world of synthetic polymers

99 percent of the plastic is produced from fossil fuels; the climate-damaging emissions involved are enormous. And only nine percent of all plastic thrown away since 1950 has been recycled. Instead, huge amounts of our plastic waste end up in dumps in Asian countries every day. We have only just begun to understand the huge dimensions of this crisis. A change of course requires in-depth knowledge of the causes, interests, responsibilities and effects of the plastics crisis. The Plastics Atlas 2019 offers exactly that in 19 chapters.

[boell.de/en/plasticatlas](https://boell.de/en/plasticatlas)

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## Book

### Unpacked! Plastic, Waste, & Me

Specifically developed and designed for a young international audience, the digital book “Unpacked! Plastic, Waste, & Me” answers 70 questions about plastic in colorful infographics and six true stories. For young people aged 12+.

[boell.de/en/unpacked-plastic-waste-me](https://boell.de/en/unpacked-plastic-waste-me)



# When the forest wins

by Elisabeth Weydt

During the economic crisis of 2008, when the rest of the world was busy bailing out banks, Ecuador chose to give itself a constitution that turned everything on its head and put nature at the center of things. The small Andean state is still the only country in the world to grant all of nature the status of a legal entity, at least on paper. Forests, rivers and meadows now have a right to exist for their own sake, and not just because they serve us humans. This very idea can trigger a revolutionary shift in paradigm because it is the continuation of a line of evolution: First, slaves were granted rights, then women and now nature – Mother Earth or “Pachamama” in Ecuador.

15 years ago, I stumbled into a copper mining conflict there. Paramilitaries stormed a village in the rainforest in order to drive people off their land. I took photos but mainly felt overwhelmed. Somehow, this had something to do with me as well. With me and Europe and the world. But I did not know how it all fit together. It was the beginning of a long journey. Not long ago, I was back in Ecuador and in this very same cloud forest in Intag, north of Quito in the subtropical Andes – a biodiversity hotspot, where more species live than almost anywhere else in the world. Even now, corporations still want to get their hands on the copper underneath, because the raw material is fundamental to the global energy and mobility transition. But to destroy a rainforest for this purpose contradicts the very point of these transitions. And in Ecuador, it is now illegal to boot. A court recently ruled that Codelco, the world’s largest copper company, must stop its operations in the Intag valley, as they go against the rights of nature.

For almost thirty years now, the people there have been fighting for their forest. Some of them have put up with daily harassment, financial difficulties and even months in prison. They received the news of the verdict with astonishing equanimity. The next company or the next government would surely come along; the threat to the forest was far from over. If only the world would finally see that true wealth is not to be found in more cars and money, but in community and health.

Germany, as a giant importer, plays a central role in the global commodity trade, particularly now in the course of the global transition towards renewable energies, electric mobility and increasing digitalization. The pressure to extract fresh copper from the ground is increasing. But early this year, with its new supply chain act, Germany made its own small first step towards subscribing to the concept of “Pachamama”. The act is intended to curb the destructive effects that our comfortable lives as citizens of a wealthy country have on other parts of the world. It tries to do that primarily by focusing on human rights but, at least indirectly, it protects nature at the same time, for example by prohibiting harmful soil or water pollution that could lead to human rights violations. And once again it becomes clear: Human rights and the rights of nature are inextricably linked. Nature is us.

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Elisabeth Weydt is a freelance journalist and co-founder of Radio Utopistan, a non-profit media outlet for the dissemination of constructive stories. She works primarily on the topics of resource exploitation, justice systems and the transformative power of civil society. Her book *Die Natur hat Recht* (“Nature has rights”) was published by Knesebeck in September 2023.

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**Martin Reichert**  
1973 - 2023

Martin provided editorial support  
for our Böll.Thema for many years.  
We owe him a debt of gratitude for his  
ideas, his levelheadedness, his texts.  
For his ever-generous help, his humor  
and his warmth.

We have lost an extraordinary  
colleague and friend.

The Böll.Thema team

“The country that supplies the raw materials must be on the same level as the country that needs them. I think that is the key to a sustainable future. Otherwise, things will get worse, more tense, more geopolitically competitive, and we will end up with a kind of law of the jungle.”

Böll.Thema 23-2

Cursed Treasures - The global hunger for raw materials and its consequences for people and the environment

Fostering democracy and upholding human rights, taking action to prevent the destruction of the global ecosystem, advancing equality between women and men, securing peace through conflict prevention in crisis zones, and defending the freedom of individuals against excessive state and economic power – these are the objectives that inspire the ideas and actions of the Heinrich Böll Foundation. We maintain close ties to the German Green Party (Alliance 90 / The Greens) and, as a think tank for green visions and projects, we are part of an international network encompassing partner projects in approximately 60 countries.

The Heinrich Böll Foundation works independently and nurtures a spirit of intellectual openness. We currently maintain a worldwide network with 38 international offices at 35 locations. We cooperate closely with the Böll Foundations in Germany's federal states, and we support talented, socio-politically engaged undergraduate and graduate students in Germany and abroad. We gladly follow Heinrich Böll's exhortation for citizens to get involved in politics, and we want to inspire others to do the same.

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