



AN ALTERNATIVE NARRATIVE ON RAW MATERIAL ACCESS

Author: Sophia Pickles¹



CONTENTS

The views, information, or opinions expressed in the study are solely those of the author and do not necessarily represent those of Greens/EFA.

INTRODUCTION

The EU Green Deal has the overarching aim of making the European Union's climate, energy, transport and taxation policies fit for reducing net greenhouse gas emissions by at least 55 percent by 2030 compared to 1990 levels, and climate-neutral by 2050.² It aims to realize a clean and circular economy, including use that is more efficient and recycling of raw materials and innovative mining technologies.³

At the same time, the global shift towards renewable energy, digitalization of our economies and societies and increased demand by defence and space industries, means that demand for raw materials is set to increase.⁴

Global demand for the lithium used to manufacture batteries for mobility and energy storage is expected to increase of up to 89-fold by 2050.⁵ Global demand for beryllium by aerospace and defence sectors, which already command between 10 and 20 percent of market share,⁶ is also projected to increase by 2030.⁷ EU demand for gallium, used to manufacture semi-conductors and on which China announced export restrictions in July 2023,⁸ is expected to grow 17-fold by 2050.⁹ EU demand for aerospace materials was already estimated at 28.2 percent of global demand in 2014,¹⁰ and competition for CRM procurement for aerospace and defence sectors is set to increase.¹¹

There are therefore inherent tensions at play for the EU: on one hand a need to **secure increased EU access to critical raw materials** (CRM) in order to enable the development of EU green industries, green energy supplies, digitalise economies and meet defense and aerospace demand; and on the other hand the need **to transform the EU economy to respect planetary boundaries**, which implies reducing consumption and demand of raw materials.

Additionally, rising awareness of the human rights and environmental cost of raw materials extraction increases the urgency for European policy makers and European businesses to **clean up raw material supply chains**.

Finally, the EU has identified raw materials as one of its **main strategic dependencies**. As expressed in the justification of the Critical Raw Materials Act (CRM Act): "[t]he EU relies almost exclusively on imports for many critical raw materials. Suppliers of those imports are often highly concentrated in a small number of third countries, both at the extraction and processing stage. For example, the EU sources 97% of its magnesium in China. Heavy rare earth elements, used in permanent magnets, are exclusively refined in China." Geopolitical considerations therefore underpin every aspect of EU policies on raw materials.

How does this look in practice?

In the last four years, the EU has sought to tackle the issue of access, and of resilience and diversification of raw material supply chains. It is increasing the number of its Free Trade Agreements¹² and has established a Critical Raw Materials strategy, the cornerstone of which is the proposed March 2023 CRM Act.¹³ The Act's external tools are mainly aimed at securing EU access to a secure, diversified, affordable and sustainable supply of critical raw materials.¹⁴

At the same time, the EU has pioneered sustainability legislation such as the December 2022 Battery Regulation, which aims to make all batteries placed on the EU market more sustainable, circular and safe (see Box A below)¹⁵ **and the proposed Right of Repair Directive**.¹⁶ In addition, the EC proposal for a Corporate Sustainability Due Diligence Directive (CSDDD) would require companies to establish due diligence procedures to address adverse impacts of their actions on human rights and the environment, including along their value chains worldwide.¹⁷



Partnerships of equals?

President of the European Commission Ursula Von der Leyen has addressed these apparent tensions in EU policy by bringing them together within a new paradigm. One that attempts to combine successfully competing with China for raw materials access through “partnerships of equals” with resource rich countries, whilst emphasizing sustainability.

“We want to put a better offer on the table. If we are in a race, we are in a race to the top,” von der Leyen said in a May 2023 statement at the G7 in Japan.¹⁸

Leopoldo Rubinacci, Deputy Director General at the European Commission’s trade department, has described the EU approach as “promoting an alternative model for African countries and other raw material producers, comprising “win-win” partnerships that go beyond extracting materials and then leaving, and that are more attractive than those offered by Beijing.¹⁹

As part of this proposition, the EU Global Gateway Strategy and Team Europe Initiative also offer to build “partnerships of equals” that reflect “Europe’s long-term commitment to the sustainable recovery in each of our partner countries” that create strong and sustainable links, not dependencies between Europe and the world and build a new future for young people.”²⁰

So what do those new partnerships entail? Are the promises of sustainability grounded in practice? Will this new type of “win-win” partnerships be sufficient to compete with China on a global scale? Are they compatible with disciplines in EU trade and investment agreements?

This paper is based on 10 days of desk-based research. It takes a summary look at the state of play now. It also brings together some of the published thinking that has already been done on EU access to raw materials abroad that could contribute towards building partnerships of equals and an “alternative narrative” this access.

1. AN ALTERNATIVE NARRATIVE ON RAW MATERIAL ACCESS AND CREATING ADDED VALUE IN RESOURCE RICH COUNTRIES THROUGH EU POLICY TOOLS

As a starting point, the EU (and all nation states) need transformation,²¹ in order to think about access to and use of raw materials differently. In the first instance, this means reducing demand and reusing what we already have in circulation. Demand reduction is discussed in Section 4 below.

Economist Kate Raworth has termed this urgently required rethink as “regenerative economics”. She argues that this regenerative model must replace our current degenerative economics – the take-make-use-lose model – that has dominated the world’s industrial sector in recent centuries.²²

Meanwhile, whilst reducing consumption and demand the EU needs to access to raw materials more transparently and sustainably than before, and in ways that go beyond the strategic autonomy model.²³ At the moment, there are huge global resource inequalities in both consumption and production,²⁴ which an alternative EU narrative on raw materials access can help address. According to a 2013 paper about planetary boundaries²⁵, “developed” countries suspect that more equity in resource access means that they must give up some of the material wealth that they enjoy today. The paper argues however that “it is in the self-interest of the wealthy nations to take steps to reduce the difference in per capita resource use between themselves and developing countries and that this is a critical step towards global sustainability. Among other things, the move requires decoupling understanding of human well-being from economic activity (and consumption) as measured by GDP”.²⁶

BOX A:

THE EU BATTERY REGULATION: A GROUND-BREAKING STEP TOWARDS AN EU CIRCULAR ECONOMY

Batteries are a key technology in the transition to climate neutrality, and to a more circular economy. Battery production is expected to increase by almost 20 times by 2030.²⁷ Currently however, many valuable raw materials in batteries are being lost, at the product's end of life. The ground-breaking aim of the EU Regulation is that batteries placed on the EU market are sustainable, circular, highly performing and safe all along their entire life cycle and that they are collected, repurposed and recycled. Batteries that are sustainably produced and with lower environmental and social impacts are more competitive in an economy that values the holistic impact and durability over cheapness at any other cost. The World Economic Forum describes that for batteries, "The most impactful environmental levers also yield superior economic value".²⁸

As such, the EU Battery regulation establishes specific requirements at each stage of the battery value chain. The main mandatory requirements include:

- **Sustainability and safety, such as carbon footprint rules on the whole production of the battery, including raw materials extraction and processing, performance and durability criteria – which will help reduce demand, and safety parameters;**
- **Labelling and information (such as storing of information on sustainability and data on state of health and expected lifetime);**
- **Obligations of economic operators linked to due diligence along the whole supply chain, including raw materials;**
- **End-of-life management (such as extended producer responsibility, collection targets and obligations, targets for recycling efficiencies and levels of recovered materials).**

Some civil society consider that the Battery law does not cover enough raw materials, or do enough to protect victims and ensure civil liability for irresponsible corporate operations, however.²⁹

The global transition away from fossil fuels to a greener, fairer economy should also be just. The International Labour Organisation (ILO) defines a Just Transition as "[g]reening the economy in a way that is as fair and inclusive as possible to everyone concerned, creating decent work opportunities and leaving no one behind."³⁰

The global imbalance in resource distribution and who benefits is widely recognised. Indeed, some civil society already criticize the EU Green Deal and recent European/producer country deals as perpetuating neo-colonial practices dressed up as "green-grabbing", whereby non-producer countries benefit from green technologies whilst people living in the countries providing the raw materials live in energy poverty.³¹



At a New Global Financial PACT Summit in Paris in June 2023, South African President Cyril Ramaphosa told France's President Macron that South Africa had learned several important lessons whilst establishing the Just Energy Transition Partnership with the governments of France, Germany, the United Kingdom, the United States and the European Union. These included that just energy transition partnerships should be country-led and -owned, that countries going through a just energy transition need to be clear about how they define 'just', particularly with respect to social impact and that just energy transition partnerships must translate into tangible financial support.³²

Recent BRICS Youth Energy Agency statements have also stressed the importance of shifting the energy transition focus from the end user's well-being in favour of a holistic all-value-chain approach that accounts for ESG-criteria (Environment, Social and Governance) implementation at all stages of critical raw material sourcing, industrial use, and disposal.³³

In part in response to the perception that non-producer countries are out to grab what they can get, resource nationalism³⁴ has risen in recent years.³⁵ Defensive strategies based on internal tools have become increasingly popular in resource rich developing economies, leading to what is now dubbed by some as "metallic nationalism".

For instance, Indonesia banned the export of nickel in 2019 as a way to attract foreign investment in battery manufacturing on shore³⁶ - an action that spurred the EU to initiate a World Trade Organisation Dispute against the ban.³⁷ Indonesia also required majority local ownership of some companies. Given the success of its policy in attracting investment by major car manufacturers such as Tesla and Hyundai, Indonesia is now considering banning the export of additional minerals to further its industrialization.³⁸ These policies have created other issues, however - some foreign investors have been put off by the country's requirements, whilst its Omnibus Law on Job Creation undermines the country's labour rights.³⁹ In the same vein, Zimbabwe recently enacted an export ban on lithium to encourage Chinese firms to build factories there instead of exporting lithium to China for processing.⁴⁰

Some resource-rich countries, such as Chile, also have in place so-called dual-pricing schemes whereby some minerals such as lithium must be sold at a lower price domestically than for exports, with an aim to artificially enhance the competitiveness of domestic downstream industries through the provision of cheap inputs.⁴¹

Meanwhile, despite increased attention on green energy and the minerals needed to support it, many resource-rich countries continue to be energy poor. In 2022, the African Union adopted a common position on energy access that stated "Africa will continue to deploy all forms of its abundant energy resources including renewable and non-renewable energy to address energy demand".⁴²

So what could alternative agreements with the EU look like?

The Critical Raw Materials Act is an opportunity to develop truly different partnerships on every level. At the same time, the European Green Deal states that the EU should use its expertise in "green" regulation to encourage partners to "design similar rules that are as ambitious as the EU's rules, thus facilitating trade and enhancing environment protection and climate mitigation in these countries".⁴³

NGOs underline several issues with the CRM Act and its proposed Strategic Alliances, some of which are examined here.

There is a great deal of consensus in the published literature around the importance of **partnership and negotiating on an equal footing**. IPIS, a Belgian research institute, states that the EU should "negotiate environmental, socio-economic and governance standards with African producer countries" with "legislation based on partnership, consultation, and approval at the highest level in African countries" akin to the EU-Canada Comprehensive Economic and Trade Agreement, i.e., forged through negotiation between equals.⁴⁴

Transport and Environment, an environmental NGO, says new agreements should include helping companies in the "Global South" to move up the value chain to processing, getting EU companies to conduct the operations in a clean and fair way in those countries, and paying workers a decent wage. They also advocate for shorter supply chains, whereby metals are extracted and processed in e.g. African countries but cathodes and batteries are then produced in Europe, in order to cut carbon emissions.⁴⁵

The Interamerican Association for Environmental Defence (AIDA)⁴⁶ and the Business & Human Rights Resource Centre -Colombia Programme (BHRRC)⁴⁷ recommend that the CRM Act be amended to ensure that it advances environmental and climate protection and promotes respect for the human rights of

indigenous peoples and the rural communities in countries producing critical raw materials. Further, that it fosters a just energy transition in the Union and a reciprocal circular economy with third countries, and proposes solutions that address the injustices left by the previous energy model and ensure cooperative relationships that are mutually beneficial for all parties involved.⁴⁸

In particular, these and other groups recommend amendments to ensure the EU Strategic Partnerships respect traditional practices and situated knowledge to reduce the technology gap between countries and promote technological autonomy and sovereignty, and that States should ensure that energy transition frameworks include a duty to conduct comprehensive social impact studies, among others.⁴⁹

NRGI warns that the CRM Act proposal falls well short on tackling corruption in its new trade policies with partner countries.⁵⁰ Revenues from the extractives sector that should fund schools, healthcare and essential infrastructure can get diverted to corrupt leaders and dubious agents, frittering away monies that should go to the population.

The NGO also points out that corruption is an efficiency concern. NRGI research shows mining lead times can be 2–3 years shorter in jurisdictions with better governance—years humanity can ill afford to waste in the race against climate tipping points.⁵¹

The NGO SOMO considers that as currently proposed, the EU strategy will not lead to secure access to CRMs and a sustainable supply of minerals for Europe. For them, the current draft would exacerbate human rights and environmental risks and undermine development in partner countries. For SOMO, the CRM Act must first address Europe's unsustainable consumption – or reinforce an economic framework where resource-rich third countries are pushed to remain as suppliers of raw materials that feed the consumer demands and unsustainable lifestyles of global powers.⁵²

What about investing in smelting or processing capacity in-country?

One of the most widespread criticisms by producer countries is that most often, multinationals do not transform minerals into metal in-country, which would for example bring higher tax revenues, but rather export raw or partially-transformed minerals for final processing and manufacturing elsewhere.

As one example for consideration – because contexts vary greatly from country-to-country, this critique is true in cobalt-rich DR Congo, where cobalt hydroxide is produced in-country rather than the metal itself.⁵³ According to a study carried out by NGO Resource Matters, one of the issues for DRC is that the battery market prefers hydroxide to metal since it is easier to integrate into battery precursors.⁵⁴ There are two drawbacks for DR Congo to convert hydroxide to sulphate: first, sulphate is difficult to transport to battery hubs and second its cobalt content is sometimes lower than that of hydroxide, which makes it proportionally more expensive to transport. This explains why the “sulphate” and “precursor” stages are often geographically close to each other. For the cobalt metal production to be economically beneficial to DR Congo, the country would need to carry out the transformation into sulphates in-country, and make battery precursors there as well.

EU investment in metal smelting or processing would additionally have to ensure that these activities in producer countries follow the highest international standards. The Environmental Justice Atlas has criticized copper smelting taking place in Namibia for being highly polluting, for example – and claims that these activities are taking place because they would not be allowed, due to their environmental impact, in Bulgaria where the NGO reports half of the copper feedstock comes from.⁵⁵

Can new agreements help the EU to challenge China's hegemony on raw materials?

China is a major importer and trader of CRMs. China controls 56 per cent of the global capacity for refined lithium, 60 per cent for refined cobalt, 58 per cent for refined manganese. China also controls important cobalt mines in DR Congo: Chinese shareholders control two firms in Congo that together account for 13.8% of the world output of cobalt.⁵⁶ In July 2023 China announced that it would impose export restrictions on gallium and germanium rare earths, along with their chemical compounds, both of which used in chip high-tech and chips.⁵⁷

China has also spent much of the last two decades investing in resource rich countries: economist Paul Collier notes that trade and investment have been just as important as exporting resources. China's investments in Chinese-operated Special Economic Zones have previously been considered an area of manufacturing potential for the continent by the African Development Bank, and were recognized as a potential tool to develop more sustainable industrialisation in some African countries in a 2020 UNDP report.⁶⁰

Building EU strategic partnerships of equals alone is unlikely to challenge China's hegemony. And in any case, building these partnerships should be done first and foremost in order to create more transparent, thriving and healthy win-win trade partnerships with producer countries, rather than being driven by fear of Chinese competition.

It is going to take time for the EU to build its own raw materials networks that can offer alternatives to Chinese supply or processing capabilities.⁶¹ Meanwhile, increased circularity is often cited as contributing to (supply) security and strengthening the EU's autonomy, i.e. the Union's capacity to act independently of other actors.⁶²

However, China has also been criticized for its engagements with other resource-rich nations, for example for narrow resource-for-infrastructure deals in the DR Congo. The EU could also learn from criticism of Chinese offerings. The Congolese government recently criticized and re-negotiated the most important of these deals,⁶³ which it estimated allowed Chinese companies to gain over \$10 billion in minerals over the past 10 years for only \$822 million in built infrastructure in DR Congo.⁶⁴ A study by NGO Resource Matters suggested that EU investment in energy infrastructure in the country could be a worthwhile avenue as part of mineral agreements.⁶⁵

The Friedrich Nauman Foundation considers that building new raw material networks is an opportunity for Europe to show global leadership. The Foundation characterizes this as the EU moving from reaction to action, from hesitance to self-confidence, and from one-sided partnership to multi-faceted partnerships that drive innovation but also promote European quality standards and ethical core values globally - which requires a clear pledge from its member states, decision-makers, the entire European society as well as its businesses, to jointly work towards this goal.⁶⁶ BusinessEurope goes further and considers that EU companies should have full reciprocal access to participate in Chinese standardization.⁶⁷

The European Council on Foreign Relations suggests that services are increasingly important for international trade, accounting for about half of global trade flows. This could be an area for the EU to focus on, when building out agreements. Trade in services is growing more rapidly than trade in goods,⁶⁸ and improved trade in services with African countries could help the EU diversify its supply chains, strengthening resilience and reducing dependencies on China and other Asian countries.

At the same time, the EU and China are strategic markets for each other, trading on average over €1.5 billion a day. China's large and fast-growing domestic market of 1.4 billion consumers and its weight as the world's third-largest economy represent significant business opportunities for European companies.⁶⁹ In December 2020, the EU and China concluded in principle the negotiations for a Comprehensive Agreement on Investment (CAI). Beset by political difficulties, the deal is also weak on sustainability however and falls back on politically weak non-binding vocabulary that, according to analysis by PowerShift and ten other NGOs, does not show much promise for more sustainability-oriented action in the future.⁷⁰

2. EXISTING AGREEMENTS BETWEEN EU COMPANIES AND COUNTRIES WITH RESOURCE RICH COUNTRIES: HOW SUSTAINABLE ARE THEY?

Increased awareness about human rights abuses and environmental destruction linked to mining is increasingly an issue for the social acceptance of mines and consequently of the green technologies which depend on them. The green washing efforts of the mining industry are widespread: from selectively reporting their achievements on United Nations Sustainable Development Goals (SDGs)⁷¹ to evidenced gaps between mining companies' corporate social responsibility activities on the one hand, and accountability and fairness on the other,⁷² Widely-used terms to describe their efforts - green-washed or not - include sustainable mining,⁷³ responsible mining and green mining, amongst others.

At the moment when it comes to mining the term "sustainability" is widely debated.⁷⁴ There is no globally agreed standard for sustainable mining, although options have been proposed.⁷⁵ Sometimes, the term "responsible mining" is used to signpost allegedly "best-in-class" mining operations. This term is equally debated (see Box B).⁷⁶

BOX B:**SUSTAINABLE MINING, RESPONSIBLE MINING, GREEN MINING: A LOOK AT SOME DEFINITIONS**

The International Social and Environmental Accreditation and Labelling Alliance (ISEAL) states that, “a diverse range of sustainability claims are made by organisations globally, and effective management of claims is essential to ensuring the truthfulness and integrity of the claims allowed by sustainability standards and similar systems.”⁷⁷

Specifically for mining, a lack of consensus prevails. Sustainable mining has been defined by Allan (1995),⁷⁸ Kirsch (2009),⁷⁹ Gorman and Dzombak (2018)⁸⁰ among others, but no common definition has been taken up.

Regarding responsible mining, definitions have been offered by, among others, the International Association Promoting Geoethics,⁸¹ IRMA,⁸² and EITI Armenia.⁸³ And in any case in practice, “responsible” mining appears to be rare: the Responsible Mining Index (RMI) Report (2022) found that of 250 assessed mine sites across 53 countries, the majority could not demonstrate that they informed and engaged with host communities and workers on basic risk factors such as environmental impacts, safety issues or grievances.⁸⁴

“Green mining”, a term referring to the fact that certain metals and minerals are used for green technologies, is called out as a myth by Friends of the Earth and the European Environment Bureau who argue that this term is used by large mining companies and governments promoting the concept and that in doing so they are effectively green-washing the metal mining industry because some metals and minerals are needed for the green transition.⁸⁵

And of critical importance: whatever definition or benchmark is eventually decided upon for what sustainable mining should look like in practise in the EU context, this must not result in de facto embargoes in which unscrupulous companies – who have previously benefited economically from harmful supply chains – stop buying from or engaging with certain raw material sources where it is deemed that reforms are needed in order to become responsible or sustainable. This is a lesson hard learnt by the tantalum and tin artisanal miners in eastern Congo, who suffered from a de facto market embargo after the 2012 passage of supply chain legislation in the United States.⁸⁶ Companies who had been buying from the region for years stopped, almost overnight. Among many learnings, this experience highlighted the need for global reform in what is considered “business as usual” along global supply chains. Engagement and reform by companies from the mine to the end product is needed to address these issues – not market withdrawal once a light is shone on harmful business practise that has rumbled along for years absent scrutiny.

This lack of clarity about what sustainability and responsibility really mean can be seen playing out in practice in some of the recent EU raw material agreements. Table 1 below lays out five examples of recent agreements for CRMs between EU countries and/or companies and resource-rich producing nations that are at various stages of implementation. The Table examines where some of the existing model agreements appear to be unclear about how they will deliver on sustainability (or responsibility) and also raises points of concern about the wider operating environments where mining is planned, which may impact on sustainable or responsible business activity.

The five examples in Table 1 include a deal established as part of the German-Chilean Raw Materials Partnership, the EU-Kazakhstan Memorandum of Understanding, private sector framework agreements and the EU-Ukraine Strategic Partnership. Not all of the deals or agreements involved directly involved States: partnerships that aim at or claim to reconcile access for European companies and sustainability can be concluded by States or directly by companies, with or without the facilitation of the involved countries. In public reporting the agreements listed here have largely been presented as partnerships which aim to reconcile access for European companies to raw materials whilst ensuring sustainability by States or companies, with or without the facilitation of the involved countries.

TABLE 1: Five examples of agreements

The examples are accompanied by non-exhaustive descriptions and have been selected as illustrative examples only. The Table also includes a non-exhaustive list of some of the risk indicators raised by civil society, investors, academics and the media regarding either the content of the agreements or the states or companies involved in them.

MATERIAL	PARTIES INVOLVED	DETAILS OF AGREEMENT	RISK INDICATORS	
1. COPPER	Aurubis AG, German copper recycler and Codelco, state-owned Chilean mining company	<ul style="list-style-type: none"> 30 January 2023: Aurubis AG and Codelco signed a memorandum of understanding (MoU) reportedly as part of German-Chilean Raw Materials Partnership to “share insights with the aim of building a more sustainable, responsible, and growing copper industry and value chain”.⁸⁷ According to company reporting, the agreement includes cooperation around smelter operations and circular economy projects in Chile.⁸⁸ 	<p>16 February 2023: two Aurubis shareholders – Ethius Invest, a Swiss asset manager and fund initiator and The German Confederation of Critical Shareholders, filed a counter-motion for the Aurubis Annual General Meeting.</p> <p>They argued Aurubis had not undertaken adequate due diligence on its copper suppliers, including in Chile, a violation of the German law on corporate due diligence in supply chains (Act on Corporate Due Diligence Obligations in Supply Chains -- LkSG).⁸⁹</p> <p>They also reported significant environmental abuse committed by Codelco, described by media and NGOs as an “ecological catastrophe”.⁹⁰</p> <p>They also noted studies linking Codelco’s copper production to significantly increased cancer rates in its operational areas.⁹¹</p> <p>In 2022 Codelco committed to have all its sites participate in the CopperMark framework, an industry scheme, by the end of 2023.⁹² See below for critique of industry schemes.</p> <p>According to civil society analysis made available to this study, a copy of the MoU has not been made public, leaving potentially affected communities in the dark about potential future social or environmental impacts.⁹³</p>	
2. MISC	Kazakhstan claims to offer “all” EU critical raw materials	EU and Kazakhstan	<ul style="list-style-type: none"> 22 November 2022: EU and Kazakhstan signed a Memorandum of Understanding.⁹⁴ It includes identifying joint raw materials projects whilst aligning “high environmental, social and governance (ESG) standards” and introducing new sustainable mining practices. No projects appear to have been signed to date. EU mining equipment producers e.g. Finland’s EastCham are already considering the country for investment: EastCham claims online that over 50 percent of mining, processing and smelting machinery in Kazakhstan is out-of-date and most mining companies lack “environmentally friendly technologies”.⁹⁵ A June 2023 a Swedish-Kazak Mining Roundtable⁹⁶ gathered at least six large Swedish mining companies,⁹⁷ and reportedly examined “sustainable development and efficiency improvement in the mining industry” including green solutions that contribute to reducing negative environmental impact.⁹⁸ 	<p>Kazakhstan has reportedly high corruption levels⁹⁹ and its mining (and industrial) sector is reportedly fraught with environmental concerns, especially with regard to GHG emissions, water pollution and use of coal.¹⁰⁰ The country’s civil society is not considered free.¹⁰¹</p> <p>ENRC, the country’s largest manganese miner and processor, has been involved in a long-standing criminal investigation led by the UK’s Serious Fraud Office (SFO) about mines it acquired in the Democratic Republic of Congo.¹⁰² In 2022 ENRC attempted to sue a British journalist who alleged individuals employed by the company organized the murders of three men, including two alleged witnesses of the corruption.¹⁰³</p> <p>Reportedly, a series of arrests of members of the family of former President Nursultan Nazarbayev appear to be linked to the mining sector and corruption/financial crimes.¹⁰⁴</p> <p>In 2012 a Heinrich Böll Foundation report noted that a prior Germany/Kazakhstan raw materials agreement under the EU Raw Materials Act included language but no measures on how to improve transparency and the implementation of environmental and social standards in the country’s mining sector.¹⁰⁵</p>

MATERIAL	PARTIES INVOLVED	DETAILS OF AGREEMENT	RISK INDICATORS
3. COBALT SULPHATE	<p>Renault Group, French car manufacturer and Managem Group.</p> <p>Managem Group is reportedly owned by Al Mada a private holding company of which main shareholder is the Moroccan Royal Family.</p> <p>Secondly, BMW, a German car manufacturer and Managem.</p>	<ul style="list-style-type: none"> On 1 June 2022 Renault Group and Managem Group signed an MoU “aimed at securing the supply of low-carbon and responsible cobalt sulphate for electric batteries” for which Managem Group supply 5,000 tonnes of cobalt sulphate per year for a period of 7 years, first delivery in 2025, to Renault Group.¹⁰⁶ BMW, a German car manufacturer signed a similar deal with Managem in 2020, to secure Euro 100million of cobalt.¹⁰⁷ An EU/Morocco MoU is “in the pipeline” according to a November 2022 Global Gateway report.¹⁰⁸ 	<p>Managem’s companies have faced environmental criticism in the past: a Managem silver mine in the country’s south east has reportedly destroyed the water source, aquifers and livelihoods of local people,¹⁰⁹ a sugar plantation owned by the company created environmental pollution.¹¹⁰</p> <p>Some academics and civil society critique Morocco’s green energy transition as benefiting transnational companies and the local ruling elite.¹¹¹ For example, a study of the country’s nascent and internationally-acclaimed solar power sector described how local rights were over-ruled in favour of centralized governmental power politics.¹¹²</p> <p>Human Rights Watch 2023 report on Morocco states increased harassment of activists and critics and that the government continued to detain and subject dissidents, journalists, bloggers, and human rights defenders to unfair trials.¹¹³ Morocco’s penal code punishes with prison and fines nonviolent speech offenses, including “causing harm” to Islam or the monarchy¹¹⁴ - making it unlikely that environmental or social harms caused by companies owned by the royal family.</p>
4. LITHIUM, COBALT, MANGANESE, RARE EARTHS, OTHER CRMS	EU and Ukraine	<ul style="list-style-type: none"> July 2021: EU-Ukrainian Strategic Partnership on Raw Materials and Batteries launched.¹¹⁵ Committed to “better integrate critical raw materials and battery value chains to develop minerals resources in Ukraine in a sustainable and socially responsible way”.¹¹⁶ No public deals signed as yet. 	<p>Ukraine is undergoing strategic (and stalled, due to the war) reforms to its mining and natural resources regulation.¹¹⁷ In particular, commentators have previously noted needed reforms to its mining waste management and subsoil regulations.¹¹⁸</p> <p>Prior to the war, environmental and anti-corruption activists working in mining areas in Ukraine were targeted in attacks, including arson attacks, that they considered linked to their civic work.¹¹⁹</p>



MATERIAL	PARTIES INVOLVED	DETAILS OF AGREEMENT	RISK INDICATORS
5. LITHIUM	Rock Tech Lithium, a Canadian lithium miner and refiner and “a globally operating car producer based in Germany”	<ul style="list-style-type: none"> 13 July 2022: Rock Tech Lithium signed a framework agreement with an unnamed car producer based in Germany, for the supply of lithium hydroxide, a key material in the production of lithium-ion electric vehicle batteries.¹²⁰ According to the public announcement, the agreement respects both parties’ “respective commitments to environmental responsibility and sustainability, including an agreement to create a road map to achieve CO2-neutral production of lithium hydroxide by the end of 2030 and requiring that any product supplied to the customer be sourced from mining sites audited by the Initiative for Responsible Mining Assurances (IRMA)” Rock Tech Lithium has announced further plans to build lithium converters and refineries in Germany and Romania.¹²¹ On 21 June 2021 the EU and Canada set up a strategic partnership on raw materials.¹²² 	<p>According to public reporting, RochTech appears to be a new mining company - one of many Canadian lithium juniors to spring up amid the so-called global lithium rush.¹²³ //The company response is still pending. OTC sent on 18/07/2023//</p> <p>The company’s prefeasibility study was published in November 2022 and contains only recommendations on social and community engagement. Its sustainability page appears to be written entirely in the future tense. The commitments made on the sustainability page do not appear to be reflected in its audited financial reports.¹²⁴</p> <p>A mining industry expert recently characterized a new phenomenon in lithium mining: overly quick mine to table planning in the lithium rush, without robust ESIA and without backed-up claims, which the industry expert called “reckless creativity”.¹²⁵ This appears to be a widespread phenomenon throughout the nascent lithium sector, according to media reporting and lithium insiders interviewed by this consultant.¹²⁶</p>

It’s noteworthy that the agreements in the Table all use terms like “sustainable mining” or “responsible mining” – what one academic paper calls “fuzzy buzzwords”¹²⁷ – without clearly defining what is meant by these terms in practice, in detail, for each of the agreements. This illustrates the issue outlined in Box B above. Such obscurity may succeed in maintaining a conversation about reforming raw material production, use and access, but could in fact mask incompatible core values about what the terms being used really mean to parties involved, and prevent groups from working towards a shared agenda.¹²⁸

It is also difficult to assess other elements of these agreements, given the lack of transparent, publicly available information about them. For example, it is unclear to what extent-affected communities and environmental groups participated in permitting procedures and/or dispute resolution mechanisms with regard to each of the relevant agreements mentioned above, and whether they had enough time to prepare and raise concerns and objections. As pointed out by SOMO, consultations and environmental impact assessments should give the general public and all stakeholders enough time to meaningfully participate and, when applicable, give or withhold their consent.



A CLOSER LOOK AT INDUSTRY SCHEMES AND STANDARDS

NGO reporting on human and environmental abuses consistently calls for regulations holding the mining industry accountable, and penalised when it breaks those laws. However, laws are often a long time in the making. As such, over the last decade, and in part in an attempt to show that industry can regulate itself, voluntary and often sector-specific industry standards or schemes promising “responsible” and/or “sustainable” production and trade in natural resources have mushroomed.¹²⁹ Originally in response to the so-called “conflict minerals” issue¹³⁰ and largely focused on mineral supply chains from central Africa, these schemes and standards have since broadened in scope in response to growing global awareness about the negative environmental, social and corruption/governance impacts of mining.¹³¹ Box C lays out some of the tools currently available to assess and improve the sustainable and responsible sourcing of raw materials.

BOX C: TOOLS TOWARDS ASSESSING AND IMPROVING THE SUSTAINABILITY AND RESPONSIBLE MINING AND SOURCING OF RAW MATERIALS

- Compliance with obligations contained within relevant EU legislation on sustainability, such as the battery regulation and CSSDD contain obligations, noting that it is critical that these laws do not rely on industry schemes;
- Compliance with legislation on sustainability and responsible sourcing in source countries, such as due diligence regulations in central African states;
- Trade-related institutions and frameworks, such as the UN Guiding Principles on Business and Human Rights,¹³² the OECD Guidelines for Multinational Enterprises.¹³³
- Industry standards and schemes, which require a range of certificates, audits, and self-assessments (see below);
- International instruments to fight impunity such as efforts to create a legally binding United Nations treaty on business accountability.¹³⁴

While development of such schemes may sound promising, civil society repeatedly report how these industry standards and certifications are marked by a series of systematic, content-related and methodological shortcomings.¹³⁵ This is examined in more detail below.

Despite civil society warnings, policy makers continue to turn to schemes and certificates as a means of assessing and even guaranteeing sustainable and responsible mining. In its Impact Assessment Report for the CRM Act, the European Commission notes that “for critical raw materials, different public and private certification systems with different scopes and coverage are currently available to show the sustainability of raw materials sold on the EU market.” The report goes on to point out however that having different and overlapping schemes “to show sustainability of critical raw materials placed on the EU market can lead to potential confusion and undermine their effectiveness”.¹³⁶

The Initiative for Responsible Mining Assurance (IRMA) Standard¹³⁷ is one such standard mentioned in the European Commission’s Impact Assessment Report. IRMA is widely considered amongst industry as the leading standard on good mining practices.¹³⁸ It can be implemented by any type of mining company. A 2022 Germanwatch study of eight industry standards aimed at responsible conduct in minerals sectors found that IRMA did at least involve rights holders and could therefore potentially address human rights risks with its criteria,¹³⁹ which only two other standards achieved.

IRMA is a voluntary standard. It does not have a sustainability metric, although it does contain “positive legacy” and “environmental responsibility” requirements.¹⁴⁰ And, although the IRMA Standard has been in place for well over a decade, only five mining companies have adhered to the Standard, and it is unclear if any mining companies at all have met its requirements in full.¹⁴¹

SO WHAT SCHEMES AND CERTIFICATES EXIST FOR THE CRMS SPECIFICALLY?

Of the 34 CRMs on the fifth (2023) list,¹⁴² voluntary industry standards exist specifically for at least aluminium,¹⁴³ cobalt,¹⁴⁴ copper,¹⁴⁵ nickel (although this is not a stand-alone nickel industry standard),¹⁴⁶ tantalum and tungsten.¹⁴⁷ There is no stand-alone standard for lithium – the International Lithium Association was only established in 2021.¹⁴⁸ In any case, CRMs that do not have a scheme, standard or certificate on offer as yet can and should apply the requirements laid out in the UNGPs and OECD Guidelines, mentioned in Box C above.

Cross-sector voluntary Mining Principles also have been developed by the International Council on Mining and Metals (ICMM), an industry body,¹⁴⁹ and by the Responsible Minerals Initiative,¹⁵⁰ among others. The underlying internationally agreed frameworks underpinning many of these standards are the United Nations Guiding Principles on Business and Human Rights,¹⁵¹ the OECD Guidelines (see Box C) and the OECD Due Diligence Guidance on responsible mineral supply chains¹⁵² – although these all have different governance systems.

Chinese Due Diligence Guidelines for Responsible Mineral Supply Chains, which are closely aligned with the OECD Guidance, were launched on 2 December 2015. In a 2021 report Global Witness found that between 2015–2018,¹⁵³ fourteen smelters and refiners (19%) of 75 analysed did not publish any due diligence information at all and that nine of the 14 entities that did not publish any due diligence information were considered “conformant” with RMI’s Responsible Mineral Assessment Process,¹⁵⁴ which is one of the industry schemes that is under consideration by the EU Alignment Assessment mentioned above.

CIVIL SOCIETY CRITIQUES IN MORE DETAIL

Civil society have consistently reported weaknesses of the industry schemes on offer for CRMs (and beyond), sometimes reporting such significant weaknesses that these undermine a scheme’s efficacy altogether.¹⁵⁵ See Box D for an example from the tin and tantalum industry. Despite these continued reports, several of these schemes are under consideration by the European Union for alignment with EU “Conflict Minerals” Regulation,¹⁵⁶ via an “alignment assessment” carried out by the Organisation for Economic Cooperation and Development.¹⁵⁷ The Alignment Assessment was critiqued by the NGO Global Witness, who asserted concerns that it “may be used as a shortcut to compliance in place of a more meaningful examination of mineral supply chains.”¹⁵⁸ The European Commission has not yet published the final list of recognized schemes, although it was expected in 2022.

BOX D:

THE DIFFICULTIES OF RESPONSIBILITY SCHEMES - AN EXAMPLE

As an example, one of the most long-standing schemes, run by the International Supply Chain Tin Initiative (iTSCi) and which covers tin, tantalum and tungsten trading, was criticised in a 2022 report by the NGO Global Witness as facilitating “the laundering of minerals originating from mines controlled by abusive militias or that use child labour” and that “the scheme many international companies are relying on to source responsibly, is also used to launder huge amounts of minerals that have been smuggled and trafficked”.¹⁵⁹ United Nations Expert reports to the UN Sanctions Committee have reported similar findings for at least the past three years, including most recently in June 2023.¹⁶⁰ iTSCi responded to the Global Witness report here.¹⁶¹

Melanie Gouby, an independent journalist who visited Nyabibwe, the iTSCi flagship tin mining site in eastern DRC in June 2023, interviewed people living around the mining site who could not afford a pair of shoes. One digger interviewed by Gouby ten years ago and again in June said that nothing had changed at the mine in terms of working conditions or pay, despite ten years’ of “responsible sourcing”.

Despite these reports the scheme, alongside others, was under consideration at least in initial stages by the European Union for alignment with EU “Conflict Minerals” Regulation.¹⁶²

And, although the EU Conflict Minerals Regulation includes a role for EU competent authorities to monitor implementation of the Regulation, the work of the competent authorities varies widely across jurisdictions.¹⁶³ One competent authority stated that, despite their requests, they were not given adequate information by importing companies to make a determination as to whether the importing company was meeting its supply chain obligations.¹⁶⁴

Civil society have consistently held a position that the EU should not promote industry schemes to address raw material sourcing and supply chain problems, but rather should place the emphasis on individual company responsibility, progressive improvement and transparent reporting. In a position paper, SOMO underlined that certification by industry schemes is often treated as a proxy for sustainability and provides a safe harbour for companies. They recommend a Strategic Partnership should not depend on certifications from a recognized industry scheme and that this should not be included as an option to fulfil sustainability criterion. They also recommend that certification should only be one tool that companies and regulators may use to assess a Strategic Partnership, and are not a replacement for a broader assessment of human rights and environmental performance.¹⁶⁵

A Germanwatch report collating views from individuals living in artisanal mining areas of producer countries found the cost of some industry schemes was passed on to artisanal miners, making their livelihoods harder whilst providing certification or assurance to downstream companies. The report recommended that companies absorb the cost of supply chain transparency and regulation, and not pass these costs on to those living and working in mining areas.¹⁶⁶

Despite the abundant evidence provided by civil society, and even though it is repeatedly made clear in discussions on the EU Conflict Minerals Act that certification must not be used to relieve companies of their responsibility to act sustainably and responsibly, this issue continues to be strongly debated in the EU Council. The EU Commission's draft of the Critical Raw Materials Act also provides that, with regard to sustainability requirements, the self-commitment to obtain certification as well as preliminary evidence should be sufficient. Civil society continue to take a very critical view of this approach and repeatedly emphasizes that audits miss or even overlook many of the issues that should be central sustainable and responsible business. For example, people affected by mining operations are most often not heard. In addition, cheap audits are often preferred to more comprehensive and higher quality audits and certification systems – with corresponding risks for the environment and human rights. Certification thus becomes a stamp of “everything is ok” – and therefore a license not to look any further.¹⁶⁷

3. AN ALTERNATIVE TO FREE TRADE AGREEMENTS

Free trade agreements (FTAs) are often criticized for sustaining certain trade monopolies, which control global production and distribution chains,¹⁶⁸ and for benefiting larger international companies above smaller ones.¹⁶⁹ On the other hand, when drafted to this effect they can also be tools to discipline states which, when it comes to raw materials, can prevent resource-rich countries from setting up policies to increase the added value that they get, for example through preferential access to companies transforming the raw materials locally.¹⁷⁰

The EU could consider replacing FTAs with improved Strategic Partnerships, which should cover environmental and human rights issues more comprehensively, and be negotiated and established using much more transparent processes than current FTAs.



BOX E:

FTAS, LABOUR STANDARDS AND THE ENVIRONMENT

EU attempts to improve conditions such as labour standards beyond European boundaries via Trade and Sustainable Development (TSD) chapters of FTAs are often critiqued,¹⁷¹ although some argue that forceful implementation and better understanding of third-state capacity and alignment with that government's objectives could improve TSD outcomes, such as in South Korea,¹⁷² or Vietnam.¹⁷³

Where vigorous environmental protection laws are lacking in a third country, FTAs can lead to resource depletion with severe negative long-term environmental effects and reduced availability of resources to local populations leading to negative impacts on the local economy.¹⁷⁴ A study of 189 countries found FTAs not only increased deforestation, but even pushed it into ecologically sensitive areas.¹⁷⁵

Investor State Dispute Settlements (ISDS) are included in (bilateral) investment treaties or in investment chapters of free trade agreements. They allow multinational corporations to sue governments in international ad-hoc tribunals if the corporations can claim that domestic laws reduce the value of their investment. This mechanism is also heavily criticised, particularly from within resource-rich countries, because the mechanism effectively gives more power to an international company than to citizens and the government of a producer country.¹⁷⁶

Some academics and civil society expound the importance of profound democratization of decision-making structures within trade agreements,¹⁷⁷ and suggest alternatives that center on norms of ecological sustainability and social justice.¹⁷⁸

A Global Policy paper suggests open plurilateral agreements as an alternative to exclusionary and inefficient preferential trade agreements, which "offers better prospects for groups of countries to explore and develop their potential common interests on regulatory matters, while safeguarding core aspects of their national regulatory sovereignty and increasing the possibility of regenerating the WTO from within."¹⁷⁹ A recent post-Brexit paper suggests that negotiating with shop stewards could produce better outcomes in supply chain organizing than government-to-government trade agreements.¹⁸⁰ New Markets Lab argue in a 2020 paper that free trade agreements should be reformed to ensure that "no one is left behind and to recover better" and that FTAs should implement circular economy measures.¹⁸¹

Existing and pending trade deals, such as EU-Chile, EU-Indonesia, EU-Mexico, EU-Mercosur, EU-Australia, should be screened regarding raw materials policies, in particular to ensure that they do not ban policies that are desirable for environmental protections in third countries. In addition, trade deals should be treated with proper process and not "split" or attempted rushed through, as has been the case with the EU-Mercosur deal. Eleven NGOs have expressed concern about this latter deal, including concerns about significant negative repercussions on the democratic process. They also note widespread concerns regarding the negative environmental and social impacts of the deal.¹⁸²

In summary, future agreements, in whatever form, must take a more democratic approach to process, be structured more transparently and include the participation of civil society.



4. RETHINKING OUR RELATIONSHIP WITH RAW MATERIALS GLOBALLY

“Humanity’s central challenge in the 21st century is to meet the human rights of all people within the capacity of Earth’s life-support systems.”

Kate Raworth¹⁸³

Taking into account all of the above, for the EU, then, accessing raw materials in new, fair and ecologically sound ways as part of a Just Transition means stepping away from old models that do not serve this end and establishing a different kind of partnership with producer countries.

And there is work to do at home, too. Within the EU itself, rethinking EU relationships with raw materials also – critically – means taking a more resource sufficient economic approach.¹⁸⁴ At the moment the “global carbonistas” – those who lead fossil-fuel intensive lifestyles – are predominantly in high-income countries.¹⁸⁵ Around 50 percent of global carbon emissions are produced by just 11 percent of people worldwide.¹⁸⁶ It’s clear that getting within social and planetary boundaries demands a strong reduction in resource consumption by the richest and a significant (but very feasible) redistribution towards the poorest.¹⁸⁷

A central part of the EU’s strategy should therefore be promoting reuse, recycling and reduced consumption at home and a circular economy – so reducing mining demand, and decoupling the notion of green transition from the damaging and illogical idea that creating economic growth whilst over-consuming can be “green”.¹⁸⁸ This should be linked to efforts to reduce demand, which will increase EU resilience to potential future shocks. If designed correctly, demand-side solutions will also reduce risks for human rights violations and environmental impacts such as deforestation in Europe and resource-rich third countries, help achieve EU climate goals under the Paris Agreement, foster innovation, and can increase wellbeing amongst all EU citizens and beyond.¹⁸⁹

Demand-side reduction measures should also be sector specific. The NGO PowerShift argues that to secure the metal supply for renewable energy production, there is a need for reduction targets in other sectors with alternative models that are less resource-intensive, such as the mobility and construction sectors. Implementing reduction targets can help manage the demand for critical raw materials, promote the adoption of alternative materials, and support a sustainable energy transition. The energy transition therefore does not contradict the need for reducing primary raw material consumption, but rather supports it.¹⁹⁰

The EU must therefore also create transformative systemic changes throughout EU societies, education systems and economies so that EU citizens and companies collectively think and behave differently about how to exist in and alongside the planet.



5. POLICY RECOMMENDATIONS FOR THE RELEVANT ASPECTS OF THE EU CRITICAL RAW MATERIAL ACT

Policy recommendations for a new narrative on Critical Raw Materials

- The EU must prioritize a circular economy approach including in the CRMA and in trade deals, including at World Trade Organisation level;
- The EU should acknowledge that living within planetary boundaries means¹⁹¹ taking steps to reduce the difference in per capita resource use between EU and developing countries, that this is in the EU's self interest and is a critical step towards global sustainability that would enhance human well-being in both types of countries. The reduction of dependence on primary raw materials should be part of a new understanding of how the EU de-risks from minerals-rich countries, moving on from the "strategic autonomy" mantra that ignores planetary boundaries.
- The EU should actively reduce its dependence on primary raw materials and implement demand-side solutions to decrease raw materials consumption by at least 10% by 2030, including phasing out single-use products containing critical raw materials, implementing a material passport system, and adopting national programs to promote material efficiency and the use of alternative materials.

Policy recommendations on the international aspects of the EU CRM, including strategic partnerships

- To be considered sustainable, the CRM Act should not provide any exceptions or regulatory breaks to environmental safeguards and regulations. Strategic Partnerships must only be approved with important safeguard processes, including environmental safeguards, observed;
- As such, Strategic partnerships should contain concrete measures to ensure agreed, clear sustainability standards, civil society participation, and the protection of human rights and the environment in third countries;

Strategic partnerships must include aligning partnerships with international agreements, implementing robust monitoring and remediation mechanisms, where appropriate supporting domestic industrialization, and involve civil society and Indigenous Peoples and respect the principles of Free Prior and Informed Consent;

- Through strategic partnerships, the EU should work with partner countries to provide financial and technical support to "developing" (or rather partner) countries to help them build their capacity for environmental assessment and enforcement, among others.

Policy recommendation for use of industry standards and schemes

- The CRM Act should not rely solely on certification schemes, standards or audits to determine sustainability. Certification, adherence to a standard or an audit alone does not guarantee compliance with mandatory human rights and environmental regulations. Instead, the CRM Act should ensure that a broader assessment of human rights and environmental performance is conducted, with criteria including multi-stakeholder governance, adherence to comprehensive standards, disclosure rules, accessible grievance mechanisms, and public audit reports;
- About tackling corruption, the EU must ensure that the anti-corruption measures within the CMR are robust, and do not rely on third party certification schemes. The last decade of experience has proven certification schemes, overall, to be weak at best and most often used by companies as a convenient green-washing tool to box-tick requirements of weak legislation;

Policy recommendations for the EU trade policy

- FTAs in their current format(s) must be either reformed to become more transparent and inclusive processes with outcomes that pay proper regard to ecological, environmental and social impacts - or be replaced with improved Strategic Partnerships that also meet these criteria.
- Existing and pending trade deals should be screened regarding raw materials policies, in particular regarding environmental protections, social standards and human rights in third countries, and also to what extent they enable partner countries to have the policy space to take measures to support value creation domestically..
- In addition, trade deals should be treated with proper process and not “split” or attempt to be rushed through without proper consultation at all levels.¹⁹² There should be transparency during both the negotiations and implementation of trade deals, and a strong role for civil society monitoring of the implementation and commitments by each party.



ENDNOTES

¹ With thanks for comments from Johanna Sydow, Heinrich-Böll Foundation.

² European Commission, A European Green Deal, https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal_en

³ Smol, Marzena, Paulina Marcinek, Joanna Duda, and Dominika Szołdrowska. 2020. "Importance of Sustainable Mineral Resource Management in Implementing the Circular Economy (CE) Model and the European Green Deal Strategy" Resources 9, no. 5: 55. <https://doi.org/10.3390/resources9050055>

⁴ EUR-Lex, Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL establishing a framework for ensuring a secure and sustainable supply of critical raw materials and amending Regulations (EU) 168/2013, (EU) 2018/858, 2018/1724 and (EU) 2019/1020 COM/2023/160 final, https://eur-lex.europa.eu/resource.html?uri=cellar:903d35cc-c4a2-11ed-a05c-01aa75ed71a1.0001.02/DOC_1&format=PDF

⁵ Ibid.

⁶ Nanbeel Mancheri, Sebastian Deetman, Arnold Tukker, Report on the current use of critical raw materials, 25 September 2017, (PDF) Report on the current use of critical raw materials (researchgate.net)

⁷ Reports and Data, Beryllium Market, By Type (Optics Grade, Military and Aerospace Grade, Nuclear Grade, Others), By End-use (Military and Aerospace, Nuclear and Energy Research, Imaging Technologies & X-rays, Automotive, Others), By Region Forecast to 2030, <https://www.reportsanddata.com/report-detail/beryllium-market> (last accessed 3 July 2023)

⁸ Twitter, Javier Blas, 3 July 2023, <https://twitter.com/JavierBlas/status/1675872776568164355>

⁹ EUR-Lex, Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL establishing a framework for ensuring a secure and sustainable supply of critical raw materials and amending Regulations (EU) 168/2013, (EU) 2018/858, 2018/1724 and (EU) 2019/1020 COM/2023/160 final, https://eur-lex.europa.eu/resource.html?uri=cellar:903d35cc-c4a2-11ed-a05c-01aa75ed71a1.0001.02/DOC_1&format=PDF

¹⁰ C Pavel; E Tzimas, Raw materials in the European defence industry. EUR 27542 EN. Luxembourg (Luxembourg): Publications Office of the European Union; 2016. JRC98333, <https://publications.jrc.ec.europa.eu/repository/handle/JRC98333>

¹¹ The Hague Centre for Strategic Studies, Strategic raw materials for defence Mapping European industry needs, January 2023, <https://hcss.nl/wp-content/uploads/2023/01/Strategic-Raw-Materials-for-Defence-HCSS-2023-2.pdf>

¹² European Commission, Negotiations and Agreements, https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/negotiations-and-agreements_en

¹³ European Commission, Critical Raw Materials: ensuring secure and sustainable supply chains for EU's green and digital future https://ec.europa.eu/commission/presscorner/detail/en/ip_23_1661

¹⁴ The tools aim at securing exports of CRMs from resource-rich countries and access for EU investors to extractive ventures overseas through outbound direct investment, cross-border financing for CRM projects, the provision of infrastructure abroad, and cooperative mechanisms via trade and investment agreements and other forms of regulatory collaboration between governments. See Victor Crochet and Weihuan Zhou, Critical Insecurities? The European Union's Strategy for a Stable Supply of Minerals, Working Paper, May 2023, <https://ghum.kuleuven.be/ggs/wp237-eu-critical-minerals.pdf>. See also, European Commission, Critical Raw Materials: ensuring secure and sustainable supply chains for EU's green and digital future, 16 March 2023, https://ec.europa.eu/commission/presscorner/detail/en/ip_23_1661

¹⁵ European Commission, Green Deal: EU agrees new law on more sustainable and circular batteries to support EU's energy transition and competitive industry, 9 December 2022, https://ec.europa.eu/commission/presscorner/detail/en/IP_22_7588.

¹⁶ Global Policy Watch, European Commission Publishes Directive on the Right of Repair Proposal, April 2023, <https://www.globalpolicywatch.com/2023/04/european-commission-publishes-directive-on-the-right-of-repair-proposal/>

¹⁷ EBU, Sustainability Rulebook: The Corporate Sustainability Due Diligence Directive, 15 January 2023, <https://www.ebu.ch/case-studies/open/legal-policy/the-future-of-eu-sustainability-regulation-ii-the-corporate-sustainability-due-diligence-directive-csddd>

¹⁸ European Commission, Press Release, Statement by President von der Leyen at the Partnership for Global Infrastructure and Investment event in the framework of the G7 Summit, 20 May 2023, https://ec.europa.eu/commission/presscorner/detail/en/statement_23_2828

¹⁹ Euractiv, EU pushes alternative model to China in global race for raw materials, 31 May 2023, <https://www.euractiv.com/section/circular-economy/news/eu-pushes-alternative-model-to-china-in-global-race-for-raw-materials/>

²⁰ European Commission, Global Gateway: up to €300 billion for the European Union's strategy to boost sustainable links around the world, 1 December 2021.

²¹ European Commission, Global Gateway: up to €300 billion for the European Union's strategy to boost sustainable links around the world, 1 December 2021.

²² Kate Raworth, Create to regenerate, <https://www.youtube.com/watch?v=XcgcMpgbNHA&list=RDLVXcgcMpgbNHA> (last accessed 30 May 2023)

²³ European Parliament, EU strategic autonomy 2013-2023: From concept to capacity, 8 July 2022, [https://www.europarl.europa.eu/thinktank/en/document/EPRS_BRI\(2022\)733589](https://www.europarl.europa.eu/thinktank/en/document/EPRS_BRI(2022)733589)

²⁴ Ibid.

²⁵ Rockström, Johan, et al. "Planetary Boundaries: Exploring the Safe Operating Space for Humanity." *Ecology and Society*, vol. 14, no. 2, 2009. JSTOR, <http://www.jstor.org/stable/26268316>. Last accessed 28 June 2023. Kate Raworth, Create to regenerate, <https://www.youtube.com/watch?v=XcgcMpgbNHA&list=RDLVXcgcMpgbNHA> (last accessed 30 May 2023)

²⁶ Will Steffen, Mark Stafford Smith, Planetary boundaries, equity and global sustainability: why wealthy countries could benefit from more equity. *Current Opinion in Environmental Sustainability*, Volume 5, Issues 3–4, 2013, Pages 403–408, <https://doi.org/10.1016/j.cosust.2013.04.007>

²⁷ Revision of Battery Legislation, June 2023.

²⁸ World Economic Forum and Global Battery Alliance, A Vision for a Sustainable Battery Value Chain in 2030, https://www3.weforum.org/docs/WEF_A_Vision_for_a_Sustainable_Battery_Value_Chain_in_2030_Report.pdf page 7.

²⁹ EU: New rules for electric battery producers toughen safeguards, yet fail to sufficiently protect victims, 13 December 2022, <https://www.amnesty.org/en/latest/news/2022/12/eu-new-rules-for-electric-battery-producers-toughen-safeguards-yet-fail-to-sufficiently-protect-victims/>

³⁰ UNDP, What is the Just Transition? And why is it important? November 2023, <https://climatepromise.undp.org/news-and-stories/what-just-transition-and-why-it-important>

³¹ Rosa Luxemburg Stiftung, Will Europe's Transition Mean Africa's Deindustrialisation? 20 April 2023, <https://www.rosalux.de/en/news/id/50285/will-europes-transition-mean-africas-deindustrialization>

³² Facebook, President Ramaphosa Told French President Macron that "We Are Not Beggars" At The New Global Financial PACT Summit In Paris, 24 June 2023, <https://fb.watch/lnHUxH4yLh/?mibextid=xKriRt>

³³ BRICS YEA Participates in UNECE Resource Management Week at the UN Office in Geneva, 28 April 2023, <https://yeabrics.org/en/press-centre/brics-yea-participates-in-unece-resource-management-week-at-the-un-office-in-geneva/>

³⁴ Resource nationalism exists in consumer countries as well as producer countries.

³⁵ Halina Ward, Resource Nationalism and Sustainable Development: a primer and key issues, March 2009, <https://www.iied.org/sites/default/files/pdfs/migrate/G02507.pdf>

³⁶ NikkeiAsia, Indonesia's nickel export ban spurs rush into vital EV metal supplier, 20 May 2023, <https://asia.nikkei.com/Business/Materials/Indonesia-s-nickel-export-ban-spurs-rush-into-vital-EV-metal-supplier#:~:text=Hoping%20to%20move%20his%20country.responded%20by%20laying%20down%20capital.>

³⁷ World Trade Organisation, DS592: Indonesia – Measures Relating to Raw Materials, https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds592_e.htm

³⁸ South China Morning Post, As Indonesia stands by bauxite ore ban, can it replicate nickel success? 26 June 2023, <https://www.scmp.com/week-asia/economics/article/3225285/indonesia-stands-bauxite-ore-ban-can-it-replicate-nickel-success>

³⁹ On 25 November 2022, the Constitutional Court in Indonesia declared that the Omnibus Law is formally flawed and conditionally unconstitutional. However, The Government and the Parliament ignored the Constitutional Court's decision and approved the omnibus law, legitimizing it in the form of government regulation in lieu of law 36. This has detrimental effects for civil society and labour. See TNI, Between a mineral and a hard place: Indonesia's export ban on raw minerals, 15 June 2023, <https://www.tni.org/en/article/between-a-mineral-and-a-hard-place>

⁴⁰ South China Morning Post, Export ban means Chinese firms will have to build plants in Zimbabwe to process lithium, 30 December 2022, <https://www.scmp.com/news/china/diplomacy/article/3205135/export-ban-means-chinese-firms-will-have-build-plants-zimbabwe-process-lithium>

⁴¹ KU Leuven, Leuven Centre for Global Governance Studies, Institute for International Law, Victor Crochet and Weihuan Zhou, Critical Insecurities? The European Union's Strategy for a Stable Supply of Minerals, Working Paper No. 237, May 2023, <https://ghum.kuleuven.be/ggs/wp237-eu-critical-minerals.pdf>

⁴² African Union, Africa Speaks with Unified Voice as AU Executive Council Adopts African Common Position on Energy Access and Just Energy Transition, 22 July 2022, <https://au.int/en/pressreleases/20220722/africa-speaks-unified-voice-au-executive-council-adopts-african-common>

⁴³ Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee of the Regions, The European Green Deal, https://eur-lex.europa.eu/resource.html?uri=cellar:b828d165-1c22-11ea-8c1f-01aa75ed71a1.0002.02/DOC_1&format=PDF (last accessed 5 June 2023).

⁴⁴ IPIS Critical minerals and the need for equal partnerships with African producers, March 2023, <https://ipisresearch.be/weekly-briefing/critical-minerals-and-the-need-for-equal-partnerships-with-african-producers/>

⁴⁵ Euractiv, Sharper safeguards and global thinking needed to make critical metals law work, 26 April 2023, <https://www.euractiv.com/section/road-transport/opinion/sharper-safeguards-and-global-thinking-needed-to-make-critical-metals-law-work/>

⁴⁶ An international non-governmental environmental law organization that has been working for environmental justice and the protection of the right to a healthy environment in Latin America since 1998, <https://aida-americas.org/en>

⁴⁷ Business Human Rights <https://www.business-humanrights.org/en/>, accessed July 2023

⁴⁸ AIDA, BHRRC, Proposal of Amendments to the Critical Raw Materials Act of the European Union, Comments on the European Union Regulation on the supply of critical minerals for energy transition and for defense and space applications, available on request.

- ⁴⁹ AIDA, BHRC, Proposal of Amendments to the Critical Raw Materials Act of the European Union, Comments on the European Union Regulation on the supply of critical minerals for energy transition and for defense and space applications, available on request.
- ⁵⁰ NRG, Europe Must Tackle Mining–Sector Corruption, 30 March 2023, <https://resourcegovernance.org/blog/europe-must-tackle-mining-sector-corruption-critical-minerals-crma>
- ⁵¹ NRG, Triple Win: How Mining Can Benefit Africa’s Citizens, Their Environment and the Energy Transition | Natural Resource Governance Institute, https://resourcegovernance.org/sites/default/files/documents/triple-win_how-mining-can-benefit-africas-citizens-their-environment-the-energy-transition.pdf, 2 November 2022.
- ⁵² SOMO, Ten reasons why the European Commission’s proposed Critical Raw Materials Regulation is not sustainable – and how to fix it, May 2023, <https://www.somo.nl/somo-position-paper-on-critical-raw-materials-regulation/>
- ⁵³ Makuta Ya Maendeleo Platform, available at <https://www.makutayamaendeleo.org/en/map/production> (last consulted 15 June 2023)
- ⁵⁴ Resource Matters, Strategic Minerals in the Democratic Republic of Congo, 2022, unpublished.
- ⁵⁵ Namibian Custom Smelter, Tsumeb, Namibia, <https://ejatlas.org/conflict/tsumeb-smelter> European Commission, Commission Staff Working Document, Impact Assessment Report, 16 March 2023, <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52023SC0161>
- ⁵⁶ _
- ⁵⁷ Twitter, Javier Blas, 3 July 2023, <https://twitter.com/JavierBlas/status/1675872776568164355>
- ⁵⁸ Financial Times, Africa ties with China are about more than raw materials, 5 October 2015, <https://www.ft.com/content/e6b692ec-5e2f-11e5-a28b-50226830d644>
- ⁵⁹ African Development Bank Group, China in Africa: An Emerging Partnership for Development? 2011, <https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/Anglaischina.pdf>
- ⁶⁰ UNDP, The Role of Development Cooperation in China–Africa Production Capacity Cooperation: Promoting Sustainable Industrialisation in Africa, 2020, https://www.undp.org/sites/g/files/zskgke326/files/migration/cn/ChinaAfricaReport_Oct2020_Web.pdf
- ⁶¹ Politico, China leaves EU playing catchup in race for raw materials, 10 March 2023, <https://www.politico.eu/article/white-gold-rush-salt-lithium-batteries-raw-materials-chile-salar-atacama/>
- ⁶² Intereconomics / Volumes / 2023 / Number 2 / Critical Raw Material Supply Matters and the Potential of the Circular Economy to Contribute to Security <https://www.intereconomics.eu/contents/year/2023/number/2/article/critical-raw-material-supply-matters-and-the-potential-of-the-circular-economy-to-contribute-to-security.html>
- ⁶³ The China Project, Mining the heart of Africa: China and the Democratic Republic of Congo, 7 June 2023, <https://thechinaproject.com/2023/06/07/mining-the-heart-of-africa-china-and-the-democratic-republic-of-congo/>
- ⁶⁴ South China Morning Post, China and Congo agree to regular checks on mining deals, 27 May 2023, <https://www.scmp.com/news/china/diplomacy/article/3222042/china-and-congo-agree-regular-checks-mining-deals>
- ⁶⁵ Resource Matters, Strategic Minerals in the Democratic Republic of Congo, 2022, unpublished.
- ⁶⁶ Friedrich Nauman Foundation, Why Alleviating Resource Dependency on China is so Complex for the EU, 24 February 2023, <https://www.freiheit.org/european-union/why-alleviating-resource-dependency-china-so-complex-eu>
- ⁶⁷ BusinessEurope, EU and China, Addressing the Systemic Challenge, 2020, https://www.busesseurope.eu/sites/buseur/files/media/reports_and_studies/2020-01-16_the_eu_and_china_-_addressing_the_systemic_challenge_-_full_paper.pdf
- ⁶⁸ European Council on Foreign Relations, Tricks of the Trade: Strengthening EU–African Cooperation on Trade in Services, 9 March 2023, <https://ecfr.eu/publication/tricks-of-the-trade-strengthening-eu-african-cooperation-on-trade-in-services/>
- ⁶⁹ European Commission, EU–China agreement explained, https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/countries-and-regions/china/eu-china-agreement/agreement-explained_en
- ⁷⁰ PowerShift and 10 other NGOs, Politically controversial, but weak in content: The China–EU Investment Agreement, February 2022, <https://power-shift.de/wp-content/uploads/2022/02/The-China-EU-Investment-Agreement-web-2022.pdf>
- ⁷¹ UEnvironmental Journal, Major mining companies accused of greenwashing, 24 February 2020, <https://environmentjournal.online/energy/major-mining-companies-accused-of-greenwashing/>
- ⁷² Hamann, R., Kapelus, P. Corporate Social Responsibility in Mining in Southern Africa: Fair accountability or just greenwash?. *Development* 47, 85–92 (2004). <https://doi.org/10.1057/palgrave.development.1100056>
- ⁷³ Gavin M. Mudd, Sustainable/responsible mining and ethical issues related to the Sustainable Development Goals, Book Chapter, 8 June 2021, <https://doi.org/10.1144/SP508-2020-113>
- ⁷⁴ The 1987 Brundtland definition of sustainability is often cited but has also been widely critiqued. Brundtland offered this definition: “the ability to meet present needs without compromising the needs of future generations”. Report of the World Commission on Environment and Development: Our Common Future <https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf>
- ⁷⁵ oA well cited 2018 Science Direct paper proposes a framework based on a systems view of mined materials in society. See Miranda R. Gorman, David A. Dzombak, A review of sustainable mining and resource management: Transitioning from the life cycle of the mine to the life cycle of the mineral, *Resources, Conservation and Recycling*, Volume 137, 2018, Pages 281–291, <https://doi.org/10.1016/j.resconrec.2018.06.001>
- ⁷⁶ See, for example, Diana Ayeh, Alena Bleicher, One concept fits it all? On the relationship between geoethics and responsible mining, *The Extractive Industries and Society*, Volume 8, Issue 3, 2021, <https://doi.org/10.1016/j.exis.2021.100934> or Sauer, Philipp C., and Michael Hiete. 2020. “Multi-Stakeholder Initiatives as Social Innovation for Governance and Practice: A Review of Responsible Mining Initiatives” *Sustainability* 12, no. 1: 236. <https://doi.org/10.3390/su12010236>

- ⁷⁷ ISEAL, Guidance for Sustainability Claims, <https://www.isealliance.org/defining-credible-practice/guidance-sustainability-claims> (last accessed 6 June 2023). ISEAL are refining their (voluntary) Code of Good Practice at the moment, see ISEAL, Take Part in Our Code of Good Practise Consultation, <https://www.isealliance.org/defining-credible-practice/iseal-consultations/take-part-our-code-good-practice-consultation> (last accessed 6 June 2023).
- ⁷⁸ R. Allan, Introduction: sustainable mining in the future, 1995, <https://ui.adsabs.harvard.edu/abs/1995JCExp..52...1A/abstract> Sustainable mining is the minimization of negative environmental, social, and economic impacts associated with mining and processing activities while limiting extraction to rates that do not exceed capabilities to establish new sources, substitutes, or recycle any particular material so as to not compromise potential needs of future generations
- ⁷⁹ Stuart Kirsch, Sustainable Mining, 2009, https://scholar.google.pt/scholar_url?url=https://www.academia.edu/download/41802408/Kirsch-DIALECTICAL-ANTHROPOLOGY-Sustainable-Mining-2010.pdf&hl=en&sa=X&ei=wfeiZOUy_ILl1g_QkKigDA&scisig=ABFr3xYvOyqAwGwXUKyHsK1BNig&oi=scholarr
- ⁸⁰ A review of sustainable mining and resource management: Transitioning from the life cycle of the mine to the life cycle of the mineral, <https://www.sciencedirect.com/science/article/abs/pii/S0921344918302076>
- ⁸¹ International Association for Promoting Geoethics, White Paper on Responsible Mining, 2017, <https://www.geoethics.org/wp-responsible-mining>. The Association defines responsible mining as: Responsible mining demonstrably respects and protects the interests of all stakeholders, human health and the environment, and contributes discernibly and fairly to broad economic development of the producing country and to benefit local communities, while embracing best international practices and upholding the rule of law.
- ⁸² IRMA defines responsible mining on its website, beginning "Responsible mining respects the rights of affected communities, protects the environment, and upholds the rights of workers." For more detail see: https://responsiblemining.net/wp-content/uploads/2022/04/What-Is-IRMA_IRMA-Community-Toolkit_21Sept15.pdf
- ⁸³ EITI Armenia, Concept Paper, "The Approach of the Multi-Stakeholder Group of EITI Armenia to Responsible Mining", 2019, https://www.eiti.am/file_manager/EITI%20Documents/Responsible_mining_concept_paper_eng.pdf
- ⁸⁴ Responsible Mining Index, RMI Report 2022, available at https://2022.responsibleminingindex.org/resources/RMI_Report_2022-Summary_EN.pdf
- ⁸⁵ Friends of the Earth, European Environment Bureau, Green Mining is a Myth: the case for cutting resource consumption in the EU, <https://friendsoftheearth.eu/wp-content/uploads/2021/10/Green-mining-myth-report.pdf>
- ⁸⁶ Global Witness, RE: Global Witness Comments on Reconsideration of Conflict Minerals Rule Implementation, 2017, https://www.globalwitness.org/documents/19287/Global_Witness_1502_SEC_Comment_March_2017.pdf
- ⁸⁷ Recycling Today, Aurubis, Codelco sign an MoU as part of a wider German-Chilean Raw Materials Partnership, 30 January 2023, <https://www.recyclingtoday.com/news/codelco-aurubis-sign-mou-german-chilean-raw-materials-partnership/>
- ⁸⁸ Aurubis Bulgaria, Aurubis and Codelco sign an agreement to cooperate on a more sustainable and responsible copper value chain, <https://www.aurubis.com/en/bulgaria/media/press-releases/aurubis-and-codelco-sign-an-agreement-to-cooperate-on-a-more-sustainable-and-responsible-copper-value-chain>
- ⁸⁹ Aurubis, Counter motions for the Annual General Meeting on February 16, 2023 in Hamburg, undated, <https://www.aurubis.com/en/dam/jcr:9c030bc6-9209-4f3e-aa2b-eaf5fd733e77/Counter motions%202023.pdf>
- ⁹⁰ DeutscheWelle, Dirty Copper: the dark side of the energy transition, March 2023, <https://www.dw.com/en/dirty-copper-the-dark-side-of-the-energy-transition/video-64949943>
- ⁹¹ NRD, Schmutziges Kupfer – Die dunkle Seite der Energiewende. An October 2022 NRD broadcast described the route taken by the copper produced by Codelco, some of which is exported to Hamburg, as "El Camino de la Muerte" (the Street of Death), because of the copper production's links to significantly increased cancer rates. The documentary shows significant environmental damage by Codelco and interviews an environmental lawyer representing indigenous people affected by cancer who live in the mining area of Calama, available at https://www.ardmediathek.de/video/dokus-im-ersten/schmutziges-kupfer-die-dunkle-seite-der-energiewende/das-ersteY3JpZ_DovL2Rhc2Vyc3RlLmRlL3JlcG9ydGFnZSBfIGRva3VtZW50YXRpb24gaW0gZXJzdGVuLzcvOGYwYjQ1LTE0NDQ0NDE4MC1hNzc2LTJkMjFKMWlyY2NiOQA The shareholder counter motion also cites a 2006 academic paper which documents significantly higher cancer rates in Antofagasta region, due to arsenic exposure in water, available at: Allan H. Smith, Guillermo Marshall, Yan Yuan, Catterina Ferreccio, Jane Liaw, Ondine von Ehrenstein, Craig Steinmaus, Michael N. Bates and Steve Selvin, Increased Mortality from Lung Cancer and Bronchiectasis in Young Adults after Exposure to Arsenic in Utero and in Early Childhood, Environmental Health Perspectives, 1 August 2006, <https://doi.org/10.1289/ehp.8832>
- ⁹² The Copper Mark: Responsibly Produced Copper, <https://coppermark.org/worlds-largest-copper-producer-commits-all-its-sites-to-participate-in-the-copper-marks-framework-by-end-of-2023/>
- ⁹³ Confidential civil society interview, June 2023.
- ⁹⁴ European Commission, COP27: European Union concludes a strategic partnership with Kazakhstan on raw materials, batteries and renewable hydrogen, 7 November 2022, https://ec.europa.eu/commission/presscorner/detail/en/IP_22_6585
- ⁹⁵ EastCham, Finland, Opportunities in sustainable mining in Kazakhstan for Finnish companies, 31 March 2023, <https://www.eastcham.fi/business-opportunities/opportunities-in-sustainable-mining-in-kazakhstan-for-finnish-companies/>
- ⁹⁶ The Kazakhstan-Sweden roundtable on "Sustainable Development and Efficiency Enhancement in the Mining Industry.
- ⁹⁷ ABB, Alfa Laval, Volvo, Epiroc, Olofsors, Sandvik, SSAB.
- ⁹⁸ Kazak Invest, Kazakhstan and Sweden Strengthen Investment Cooperation in the Mining Industry, 3 June 2023, <https://invest.gov.kz/media-center/press-releases/kazakhstan-and-sweden-strengthen-investment-cooperation-in-the-mining-industry/>
- ⁹⁹ World Economics, Kazakhstan's Corruption Perceptions Index, 2022, <https://www.worldeconomics.com/National-Statistics/Corruption-Levels/Kazakhstan.aspx> and Council of Europe, Evaluation Report Kazakhstan, March 2022, available at <https://rm.coe.int/joint-first-and-second-evaluation-rounds-evaluation-report-on-kazakhstan/1680a6e276>

- ¹⁰⁰ UNECE, Kazakhstan to strengthen mine tailings safety and prevent water pollution, with UNECE support, February 2022, <https://unece.org/climate-change/news/kazakhstan-strengthen-mine-tailings-safety-and-prevent-water-pollution-unece>. See also Asif Raihan, Almagul Tuspekova, Role of economic growth, renewable energy, and technological innovation to achieve environmental sustainability in Kazakhstan, *Current Research in Environmental Sustainability*, 2022, <https://doi.org/10.1016/j.crsust.2022.100165>
- ¹⁰¹ Freedom House, Freedom in the World, 2023 <https://freedomhouse.org/country/kazakhstan/freedom-world/2023>. The report determines Kazakhstan as “not free”. Human Rights Watch, Kazakhstan, 2023, available at <https://www.hrw.org/world-report/2023/country-chapters/kazakhstan> reported longstanding rights abuses by authorities including heavy restrictions on the rights to peaceful protest and freedom of speech.
- ¹⁰² Global Witness, FTSE 100 mining company ENRC must openly address Congo corruption concerns, 2014, <https://www.globalwitness.org/en/archive/ftse-100-mining-company-enrc-must-openly-address-congo-corruption-concerns/> and Reuters, Kazakh mining co seeks up to \$46 mln damages from Dechert, UK fraud watchdog, 20 October 2022, <https://www.reuters.com/legal/litigation/kazakh-mining-co-seeks-up-46-mln-damages-dechert-uk-fraud-watchdog-2022-10-20/>
- ¹⁰³ The Guardian, Bid by Kazakh mining company to sue journalist is dismissed by judge, 9 March 2022, available at <https://www.theguardian.com/books/2022/mar/02/bid-by-kazakh-mining-company-to-sue-journalist-is-dismissed-by-judge>
- ¹⁰⁴ OCCRP, Kazakhstan Investigates Another Relative of Former Ruler Nazarbayev, 22 June 2022, available at <https://www.occrp.org/en/daily/16475-kazakhstan-investigates-another-relative-of-former-ruler-nazarbayev>
- ¹⁰⁵ Heinrich Boll Stiftung, The German Raw Material Strategy: Taking Stock, 2012, https://www.boell.de/sites/default/files/txt_120822_the_german_raw_materials_strategy_taking_stock_hf_v100.pdf
- ¹⁰⁶ Renault Group, Renault Group and Managem Group sign an agreement for a sustainable supply of Moroccan Cobalt, 1 June 2022, available at <https://media.renaultgroup.com/renault-group-and-managem-group-sign-an-agreement-for-a-sustainable-supply-of-moroccan-cobalt/>
- ¹⁰⁷ <https://www.miningmagazine.com/supply-chain-management/news/1390690/bmw-signs-morocco-cobalt-supply-deal>
- ¹⁰⁸ Global Gateway, EU-Africa: Global Gateway Investment Package – Green Energy Initiative, November 2022, available at: https://ec.europa.eu/commission/presscorner/detail/en/fs_22_1120
- ¹⁰⁹ Al Jazeera, A Moroccan village’s long fight for water rights, 13 December 2015, <https://www.aljazeera.com/economy/2015/12/13/a-moroccan-villages-long-fight-for-water-rights/>. See also TNI, The Moroccan energy sector, December 2021, <https://longreads.tni.org/the-moroccan-energy-sector>
- ¹¹⁰ Fatima-Zahrae Benjelloui, The Paradox of Sustainability in Morocco as a Developing Country: Ambitions and Challenges, available at <https://www.proquest.com/openview/07fef9d6a35d00a7405c45104e6d551a/1?pq-origsite=gscholar&cbl=2026366&diss=y>
- ¹¹¹ K.E. Rignall, Solar power, state power, and the politics of energy transition in pre-Saharan Morocco. *Environment and Planning A: Economy and Space*, 48(3), 540–557, 2016, <https://doi.org/10.1177/0308518X15619176>; TNI, The Moroccan energy sector, December 2021, <https://longreads.tni.org/the-moroccan-energy-sector>
- ¹¹² Roberto Cantoni, Karen Rignall, Kingdom of the Sun: a critical, multiscale analysis of Morocco’s solar energy strategy, *Energy Research & Social Science*, 2019, available at <https://doi.org/10.1016/j.erss.2018.12.012>
- ¹¹³ HRW, Morocco, 2023, available at <https://www.hrw.org/world-report/2023/country-chapters/morocco-and-western-sahara>
- ¹¹⁴ Ibid.
- ¹¹⁵ European Commission, EU – Ukraine strategic partnership on raw materials: the European Bank of Reconstruction and Development will support digitalisation of geological data in Ukraine, November 2022, https://neighbourhood-enlargement.ec.europa.eu/news/eu-ukraine-strategic-partnership-raw-materials-european-bank-reconstruction-and-development-will-2022-11-17_en
- ¹¹⁶ European Commission, EU and Ukraine kick-start strategic partnership on raw materials, 13 July 2021, https://single-market-economy.ec.europa.eu/news/eu-and-ukraine-kick-start-strategic-partnership-raw-materials-2021-07-13_en
- ¹¹⁷ Alyona Shulima, Ukrainian Law Firms, February 2023, available at <https://ukrainianlawfirms.com/reviews/natural-resources-mining/>
- ¹¹⁸ Ibid. See also Oleksandr Trehub, Ways to Improve the Legal Framework of Mineral Waste Management in Ukraine, 2020, <https://asej.eu/index.php/asej/article/download/553/480/>
- ¹¹⁹ Freedom House, Ukraine: Assault on Activists a Sign of Worsening Environment, February 2018, <https://freedomhouse.org/article/ukraine-assault-activists-sign-worsening-environment>
- ¹²⁰ Rock Tech, Rock Tech Lithium signs framework agreement with a globally operating car producer based in Germany, 13 July 2022, <https://www.rocktechlithium.com/news/rock-tech-lithium-signs-framework-agreement-with-a-globally-operating-car-producer-based-in-germany>
- ¹²¹ Reuters, Canada’s Rock Tech Lithium could build 400 mln euro plant in Romania, 7 March 2022, <https://www.reuters.com/business/energy/canadas-rock-tech-lithium-could-build-400-mln-euro-plant-romania-2022-03-07/>
- ¹²² European Commission, EU and Canada set up a strategic partnership on raw materials, June 2021, https://single-market-economy.ec.europa.eu/news/eu-and-canada-set-strategic-partnership-raw-materials-2021-06-21_en
- ¹²³ Automotive News Canada, The rush to get Canadian lithium mines online, November 2022, <https://canada.autonews.com/electric-vehicles/canadian-lithium-mines-needed-badly>
- ¹²⁴ For example, the company website sustainability page states that “By 2030, 50% of raw materials for our German converters will come from recycling”, available at <https://www.rocktechlithium.com/sustainability>. The company does not state how this will be achieved on its webpages, or in its 2022 audited financial report available at https://res.cloudinary.com/rocktech/image/upload/v1682397903/Rock_Tech_Financial_Statements_Q4_2022_12_31_2022_Signed_FINAL_FOR_SEDAR_c263176c37.pdf

- ¹²⁵ European Parliament, Testimony of Dr. Steven H. Emerman to the European Parliament Public Hearing on Environmental and Social Impacts of Mining in the EU December 2, 2021, <https://www.europarl.europa.eu/cmsdata/243324/Hearing%2002.12.2021%20testimony%20Emerman.pdf>
- ¹²⁶ Vice, Inside the 'White Gold' Rush to Mine American Lithium and Make Millions, May 2023, <https://www.vice.com/en/article/bvjned/lithium-mining-nevada-claims> Confidential interviews with two academics and three lithium industry members, October - December 2022.
- ¹²⁷ Jason Palmer, Ian Cooper, Rita van der Vorst, Mapping out fuzzy buzzwords who sits where on sustainability and sustainable development, Sustainable Development, 04 December 1998, [https://doi.org/10.1002/\[SICI\]1099-1719\(199708\)5:2%3C87::AID-SD70%3E3.0.CO;2-Z](https://doi.org/10.1002/[SICI]1099-1719(199708)5:2%3C87::AID-SD70%3E3.0.CO;2-Z)
- ¹²⁸ Ibid.
- ¹²⁹ Resolve Solutions Network, World Economic Forum, Voluntary Responsible Mining Initiatives A Review, 2015, https://www3.weforum.org/docs/Voluntary_Responsible_Mining_Initiatives_2016.pdf
- ¹³⁰ OECD, Developing the Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas, <https://www.oecd.org/daf/inv/mne/developingtheduediligenceguidanceforresponsiblesupplychainsofmineralsfromconflict-affectedandhigh-riskareas.htm>
- ¹³¹ Companies are facing increasing pressure from investors, customers and regulators to address, monitor and manage Environmental, Social and Governance (ESG) risks. See for example, Bryan Maybee, Eric Lilford, Michael Hitch, Environmental, Social and Governance (ESG) risk, uncertainty, and the mining life cycle, The Extractive Industries and Society, Volume 14, 2023, <https://doi.org/10.1016/j.exis.2023.101244>
- ¹³² United Nations Human Rights, https://www.ohchr.org/sites/default/files/documents/publications/guidingprinciplesbusinesshr_en.pdf
- ¹³³ OECD, <https://www.oecd.org/corporate/mne/>
- ¹³⁴ FIAN International, Corporations must be held accountable for human rights and environmental crimes, 19 October 2022, <https://www.fian.org/en/press-release/article/corporations-must-be-held-accountable-for-human-rights-and-environmental-crimes-3041>
- ¹³⁵ Germanwatch, An examination of Industry Standards in the Raw Materials Sector, 2022, available at: https://www.germanwatch.org/sites/default/files/germanwatch_abstract_an_examination_of_industry_standards_in_the_raw_materials_sector_2022-09.pdf (last accessed 23 June 2023), page 2.
- ¹³⁶ European Commission, Commission Staff Working Document, Impact Assessment Report, 16 March 2023, <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52023SC0161>
- ¹³⁷ Initiative for Responsible Mining Assurance (IRMA), IRMA Standard for Responsible Mining 2018, available at: https://responsiblemining.net/wp-content/uploads/2018/07/IRMA_STANDARD_v1.0_FINAL_2018-1.pdf
- ¹³⁸ European Environmental Bureau, Friends of the Earth, Green Mining is a Myth, October 2021, available at: <https://friendsoftheearth.eu/wp-content/uploads/2021/10/Green-mining-myth-report.pdf> (last accessed 1 June 2023), page 22 and September and October 2022 interviews with an EU original equipment manufacturer, an EU diplomat, an EU think tank and a Canadian NGO interviewed by the consultant. See also EarthWorks, Why IRMA's Standard For Responsible Mining is a Big Deal, https://earthworks.org/blog/why_irma_standard_for_responsible_mining_is_a_big_deal/
- ¹³⁹ Germanwatch, An examination of Industry Standards in the Raw Materials Sector, 2022, available at: https://www.germanwatch.org/sites/default/files/germanwatch_abstract_an_examination_of_industry_standards_in_the_raw_materials_sector_2022-09.pdf (last accessed 23 June 2023).
- ¹⁴⁰ Initiative for Responsible Mining Assurance (IRMA), IRMA Standard for Responsible Mining 2018, available at: https://responsiblemining.net/wp-content/uploads/2018/07/IRMA_STANDARD_v1.0_FINAL_2018-1.pdf Chapter 2 and Chapter 4.
- ¹⁴¹ According to the IRMA website, these are: Albemarle Corporation, Anglo American plc, Carrizal Mining, S.A. de C.V, Livent Corporation, Sociedad Química y Minera (SQM) Salar S.A. For a mining company to be an IRMA member, it must have "at least one site" that has gained at least 50 IRMA points. See IRMA Members/Partners, available at: <https://responsiblemining.net/members-partners/#what-it-is> (last accessed 23 June 2023).
- ¹⁴² https://single-market-economy.ec.europa.eu/sectors/raw-materials/areas-specific-interest/critical-raw-materials_en
- ¹⁴³ Aluminium Stewardship Initiative <https://aluminium-stewardship.org/>
- ¹⁴⁴ Cobalt Institute, Cobalt Industry Responsible Assessment Framework (CIRAF), <https://www.cobaltinstitute.org/responsible-sourcing/industry-responsible-assessment-framework-ciraf/>
- ¹⁴⁵ The Copper Mark, Responsibly Produced Copper, <https://coppermark.org/>. The Copper Mark claims to be "an assurance framework set up to promote the responsible production of copper."
- ¹⁴⁶ Nickel Institute, Responsible Sourcing of Nickel, <https://nickelinstitute.org/en/policy/nickel-life-cycle-management/responsible-sourcing/>. The Nickel Institute states that "Responsible and sustainable production practices are a priority for Nickel Institute member companies" and that "The NI does not provide independent frameworks or tools, or operate an accreditation role or provide certification to companies. It remains the individual company's responsibility to demonstrate responsible production and compliance with responsible sourcing programs."
- ¹⁴⁷ iTSCI, Understand iTSCI, <https://www.itsci.org/>
- ¹⁴⁸ ILA, <https://lithium.org/about/>
- ¹⁴⁹ ICMM, Mining Principles, available at <https://www.icmm.com/en-gb/our-principles/mining-principles/mining-principles> (last accessed 1 June 2023). These 'aim to ensure mining contributes to sustainable development.' They have 21 members including Glencore and Vale. ICMM, Members, available at <https://www.icmm.com/en-gb/our-story/our-members> (last accessed 1 June 2023)

- ¹⁵⁰ <https://www.responsiblemineralsinitiative.org/>
- ¹⁵¹ United Nations Human Rights, Guiding Principles on Business and Human Rights, https://www.ohchr.org/sites/default/files/documents/publications/guidingprinciplesbusinesshr_en.pdf
- ¹⁵² OECD Guidelines for Multinational Enterprises, <https://www.oecd.org/corporate/mne/mining.htm#:~:text=for%20multinational%20enterprises-.OECD%20Due%20Diligence%20Guidance%20for%20Responsible%20Supply%20Chains%20of%20Minerals.Affected%20and%20High%20Risk%20Areas&text=The%20OECD%20Due%20Diligence%20Guidance,mineral%20purchasing%20decisions%20and%20practices.>
- ¹⁵³ Global Witness, Digging for Disclosure, March 2021, https://www.globalwitness.org/documents/20091/Digging_for_Disclosure_-_March_2021.pdf
- ¹⁵⁴ EPRM Secretariat, RMI Responsible Minerals Assurance Process (RMAP) Documents and Tools, 30 May 2020, <https://europeanpartnership-responsibleminerals.eu/blog/view/3b545d2a-012a-4541-bf88-bc88da9a2593/rmi-responsible-minerals-assurance-process-rmap-documents-and-tools>
- ¹⁵⁵ See, for example 2022 Germanwatch study of eight industry standards, Germanwatch, An examination of Industry Standards in the Raw Materials Sector, 2022, available at: https://www.germanwatch.org/sites/default/files/germanwatch_abstract_an_examination_of_industry_standards_in_the_raw_materials_sector_2022-09.pdf (last accessed 23 June 2023)
- ¹⁵⁶ European Commission, Conflict Minerals Regulation: The regulation explained https://policy.trade.ec.europa.eu/development-and-sustainability/conflict-minerals-regulation/regulation-explained_en#:~:text=On%201%20January%202021%20a.EU%20%E2%80%93%20the%20Conflict%20Minerals%20Regulation.&text=The%20Conflict%20Minerals%20Regulation%20aims,are%20mined%20using%20forced%20labour
- ¹⁵⁷ OECD, OECD Alignment Assessments of Industry and Multi-Stakeholder Programmes, <https://mneguidelines.oecd.org/industry-initiatives-alignment-assessment.htm>
- ¹⁵⁸ Global Witness Global Witness statement on OECD Alignment Assessment of Industry Programmes with the OECD Minerals Guidance, 17 April 2017, <https://www.globalwitness.org/en/press-releases/global-witness-statement-oecd-alignment-assessment-industry-programmes-oecd-minerals-guidance/>
- ¹⁵⁹ Global Witness, The iTSCI Laundromat, updated May 2022, <https://www.globalwitness.org/en/campaigns/natural-resource-governance/itsci-laundromat/>
- ¹⁶⁰ United Nations Group of Experts on the DR Congo, S/2023/431, paras. 91-97, <https://documents-dds-ny.un.org/doc/UNDOC/GEN/N23/123/80/PDF/N2312380.pdf?OpenElement>
- ¹⁶¹ iTSCI, iTSCI reponse to Global Witness "The iTSCI Laundromat", 28 June 2022, https://www.itsci.org/wp-content/uploads/2022/06/ITSCI-Statement-Global-Witness_Final.pdf
- ¹⁶² European Commission, Conflict Minerals Regulation: The regulation explained https://policy.trade.ec.europa.eu/development-and-sustainability/conflict-minerals-regulation/regulation-explained_en#:~:text=On%201%20January%202021%20a.EU%20%E2%80%93%20the%20Conflict%20Minerals%20Regulation.&text=The%20Conflict%20Minerals%20Regulation%20aims,are%20mined%20using%20forced%20labour
- ¹⁶³ EURAC, Joint Paper, The EU Conflict Minerals Regulation, June 2021, https://www.eurac-network.org/sites/default/files/202106_coregroup_reviewpaper_3tg_implementation_memberstates.pdf p.19
- ¹⁶⁴ Confidential interview, EU competent authority, Paris, May 2022.
- ¹⁶⁵ SOMO also states that applications for Strategic Partnerships submitted to the EC need to provide evidence of 'sustainability.' Annex III of the CRMR provides for two options for the EC assessment of the sustainability criterion. The first option is if the project complies with Union Legislation or international instruments; the second option is by either providing evidence that the project is individually certified as part of a recognised industry scheme or by committing to obtain certification for the project as part of a recognised scheme. The EC's second option relies on certification by industry schemes to demonstrate the sustainability of Strategic Partnerships, enabling companies to use these schemes to 'attest compliance' with the sustainability criterion. In other words, it treats certification as equivalent to complying with Union legislation or international instruments. This risks treating certification as a substitute or equivalent of the corporate obligation to conduct Human Rights and Environmental Due Diligence (HREDD) and to abide by EU legislation and international law. SOMO strongly advocates against this. For more detail see: SOMO, Ten reasons why the European Commission's proposed Critical Raw Materials Regulation is not sustainable – and how to fix it, May 2023, <file:///T:/2023/EP%20and%20Heinrich%20Böll%20Research/Reading/SOMO-position-paper-on-Critical-Raw-Materials-Regulation.pdf>
- ¹⁶⁶ Germanwatch, The EU Regulation on responsible mineral supply and its accompanying measures: views from civil society from producing countries, 2019, https://germanwatch.org/sites/germanwatch.org/files/EurAc_Workshop%20Report_Responsible%20Mineral%20Sourcing.pdf
- ¹⁶⁷ Böll Thema, Audits cannot replace corporate due diligence, forthcoming, September 2023.
- ¹⁶⁸ Franklin Obeng-Odoom, The African Continental Free Trade Area, The American Journal of Economics and Sociology, 3 February 2020, <https://doi.org/10.1111/ajes.12317>
- ¹⁶⁹ Blanga-Gubbay, Michael and Conconi, Paola and Parenti, Mathieu, Globalization for Sale (2020). CESifo Working Paper No. 8239, SSRN: <https://ssrn.com/abstract=3584090> or <http://dx.doi.org/10.2139/ssrn.3584090>
- ¹⁷⁰ Interview, Green Party representative, June 2023.
- ¹⁷¹ James Harrison, Mirela Barbu, Liam Campling, Ben Richardson, Adrian Smith, Governing Labour Standards through Free Trade Agreements: Limits of the European Union's Trade and Sustainable Development Chapters, Journal of Common Market Studies, 25 March 2018, <https://doi.org/10.1111/jcms.12715>

- ¹⁷² María J. García, Sanctioning Capacity in Trade and Sustainability Chapters in EU Trade Agreements: The EU–Korea Case, *Politics and Governance*, 2022, Volume 10, Issue 1, Pages 58–67 <https://doi.org/10.17645/pag.v10i1.4782>
- ¹⁷³ Kristoffer Marslev and Cornelia Staritz, Towards a stronger EU approach on the trade-labor nexus? The EU–Vietnam Free Trade Agreement, social struggles and labor reforms in Vietnam, 2022 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group. Open Access article distributed under the terms of the Creative Commons Attribution License
- ¹⁷⁴ Debating Europe, Arguments for and Against Free Trade, <https://www.debatingeurope.eu/focus/arguments-for-and-against-free-trade/#:~:text=Free%20trade%20is%20bad%20for%20the%20environment&text=The%20rigorous%20exploitation%20leads%20to,impacts%20on%20the%20local%20economy>. (last accessed 30 May 2023)
- ¹⁷⁵ Ryan Abman and Clark Lundberg, Does Free Trade Increase Deforestation? The Effects of Regional Trade Agreements, *Journal of the Association of Environmental and Resource Economists* Volume 7, Number 1, <https://www.journals.uchicago.edu/doi/abs/10.1086/705787>
- ¹⁷⁶ TNI, Between a mineral and a hard place: Indonesia’s export ban on raw minerals, 15 June 2023, <https://www.tni.org/en/article/between-a-mineral-and-a-hard-place>
- ¹⁷⁷ Mark Rupert, *Ideologies of Globalization: Contending Visions of a New World Order*, Chapter 7.
- ¹⁷⁸ Cynthia Moe-Lobeda & Daniel Spencer, Free Trade Agreements and the Neo-Liberal Economic Paradigm: Economic, Ecological, and Moral Consequences, *Political Theology*, 10:4, 685–716, 2009, DOI: 10.1558/poth.v10i4.685
- ¹⁷⁹ Bernard Hoekman, Charles Sabel, Open Plurilateral Agreements, International Regulatory Cooperation and the WTO, *Global Policy*, 5 July 2019, available at: <https://onlinelibrary.wiley.com/doi/abs/10.1111/1758-5899.12694>
- ¹⁸⁰ Waterman, Andrew and Norman, Ben. “Supply Chain Organizing as a Worker-led Strategy for Trade: A Case Study of Unite the Union” *New Global Studies*, vol. 16, no. 1, 2022, pp. 7–30. <https://doi.org/10.1515/ngs-2022-0009>
- ¹⁸¹ Katrin Kuhlmann, Tara Francis, Indulekha Thomas, Malou Le Graet, Mushfiqur Rahman, Fabiola Madrigal, Maya Cohen, Ata Nalbantoglu, Re-conceptualizing Free Trade Agreements Through a Sustainable Development Lens, July 2020, <https://www.unescap.org/sites/default/files/145%20Final-Team%20Katrin%20Kuhlmann-USA.pdf> page 11, (last accessed 30 May 2023)
- ¹⁸² PowerShift and ten other NGOs, The European Commission’s possible attempts to fast track the EU–Mercosur trade deal: an attack on democracy, May 2023.
- ¹⁸³ Kate Raworth, Want to get into the donut? Tackle inequality, <https://www.kateraworth.com/2014/10/16/doughnut-inequality/> (last accessed 26 June 2023)
- ¹⁸⁴ PowerShift, Connecting the Raw Materials Transition and the Energy Transition, <https://power-shift.de/home-en/>
- ¹⁸⁵ Paris School of Economics, Carbon and inequality: from Kyoto to Paris, 3 November 2015, <http://piketty.pse.ens.fr/files/ChancePiketty2015.pdf> (last accessed 20 June 2023)
- ¹⁸⁶ Kate Raworth, Want to Get into the Doughnut? Tackle Inequality, United Nations University, 2014, <https://ourworld.unu.edu/en/want-to-get-into-the-doughnut-tackle-inequality>
- ¹⁸⁷ Kate Raworth, Want to get into the donut? Tackle inequality, <https://www.kateraworth.com/2014/10/16/doughnut-inequality/> (last accessed 30 May 2023)
- ¹⁸⁸ European Environmental Bureau, Friends of the Earth, Green Mining is a Myth, October 2021, available at: <https://friendsoftheearth.eu/wp-content/uploads/2021/10/Green-mining-myth-report.pdf> (last accessed 6 June 2023)
- ¹⁸⁹ EEB and coalition members, A Turning Point: The Critical Raw Material Act’s needs for a Social and Just Green Transition: A Position Paper for the ENVI and INTA Committee Votes, June 2023, available on request.
- ¹⁹⁰ PowerShift, Metals for the Energy Transition, 4 April 2023, <https://power-shift.de/metals-for-the-energy-transition/>
- ¹⁹¹ Rockström, Johan, et al. “Planetary Boundaries: Exploring the Safe Operating Space for Humanity.” *Ecology and Society*, vol. 14, no. 2, 2009. JSTOR, <http://www.jstor.org/stable/26268316>. Last accessed 28 June 2023.
- ¹⁹² PowerShift and ten other NGOs, The European Commission’s possible attempts to fast track the EU–Mercosur trade deal: an attack on democracy, May 2023.

CREDITS

Design and layout:

Okay When Agency

Cover Photo by

Alexander Schimmeck on Unsplash

