

Powering Change: Principles for Businesses and Governments in the Battery Value Chain

Climate change is not only the great environmental emergency of our time, but also an unprecedented human rights crisis. It threatens a wide range of human rights, including the rights to water, to health, and to life itself.

One of the key measures that governments must take to tackle this crisis is to urgently drive the shift from fossil fuels to renewable energy sources and green technologies. Fossil fuels – like coal, gas, and oil – all release CO₂ into the atmosphere when burned, and thus contribute to increasing global temperatures.¹

Central to this shift is a massive increase in the use of rechargeable batteries to power electric vehicles and renewable energy storage units. These batteries are already widely used to power mobile phones, laptops, tablets, cameras, power tools, and other electronic devices.

But this shift – which is already underway and gathering speed – carries its own risks of additional environmental harm and the abuse of human rights.² These risks are especially imposed on people and communities, mostly in the Global South, already marginalized by poverty and discrimination, and many of whom are also disproportionately vulnerable to the effects of climate change, despite their countries' limited contribution to it.³

It does not need to be this way.

This paper lays out the principles that businesses and governments should adopt to avoid causing, contributing or being directed linked to human rights abuses and environmental harm along the battery value chain, from extraction to end-of-

¹ At the same time, governments must also take measures to reduce energy demand and overall consumption, including reducing the rate at which cars are produced and privately owned cars while supporting more sustainable transportation options, like cycling, walking, car-shares or affordable and accessible public transit.

² These are being increasingly well documented by a range of organizations. For example: Business and Human Rights Resource Centre, *Transition Minerals Tracker*, <https://trackers.business-humanrights.org/transition-minerals/>; SOMO, *The Battery Paradox: How the electric vehicle boom is draining communities and the planet*, 22 December 2020, <https://www.somo.nl/the-battery-paradox/>; Institute for Sustainable Futures, University of Technology, Sydney, *Responsible minerals sourcing for renewable energy*, 17 April 2019, <https://www.earthworks.org/publications/responsible-minerals-sourcing-for-renewable-energy/>

³ IPCC, *Fifth Assessment Report: WGI: Summary for Policymakers*, p. 6.

life, while supporting the need to promote a more efficient use of resources, fewer vehicles, and the development of new battery technologies and other human rights-consistent solutions to climate change.

The urgency of the climate crisis demands bold action from all sectors and lasting solutions that sacrifice neither people nor the planet.

The rechargeable lithium-ion batteries that power our cars, computers, smartphones, and even the grid, contain mined materials, such as lithium, cobalt and nickel. Currently, the production of these batteries is far from being as ethically “clean” or “green” as it could and should be. Years of poorly regulated industry practices mean that the adverse side of the battery boom is felt by communities in mineral-rich areas, like those in the ‘Lithium Triangle’ of Argentina, Chile, and Bolivia, or the cobalt-mining region of the Democratic Republic of Congo (DRC).

Rather than benefit the people of the DRC, mining for cobalt often comes at great cost to their lives and health. Communities are forcibly evicted to make way for expanding mines, children as young as seven can be found digging the minerals, and low wages and dangerous conditions are the norm.⁴ In South America, evidence points to lithium extraction posing risks to Indigenous peoples’ water resources and fragile ecosystems, which are of critical importance to their livelihoods, cultures, as well as their right to self-determination.

Around the world, mineral extraction is often linked to corruption, while poor design, operation and waste management, with little accountability for clean-up and remediation, has resulted in persistent pollution and health harms.

The rush to find new sources of battery minerals is also being cited as justification to begin exploiting mineral deposits on the ocean floor, known as Deep Sea Mining. This nascent industry poses severe, irreversible, risks to the seafloor ecosystem, the life support systems derived from healthy oceans, and the livelihoods of coastal communities.⁵

⁴ Afrewatch, *Report of the Stakeholder Brainstorming Workshop on Artisanal Mining in Lualaba Province*, 19 May 2020; Amnesty International, *Time to Recharge*, 2017, <https://www.amnesty.org/en/documents/afr62/7395/2017/en/>; Mark Dummett, *The Cobalt Supply Chain’s Choice*, Benchmark Minerals Q2 Review 2020.

⁵ Greenpeace International, *Deep Trouble: The murky world of the deep sea mining industry*, 9 December 2020 <https://www.greenpeace.org/international/publication/45835/deep-sea-mining-exploitation/>

Meanwhile, new battery manufacturing factories are set to intensify production enormously in the coming decade. With companies having a single-minded focus on rapid expansion rather than resource efficiency, reuse, and recycling, the pressure to extract more minerals is growing, while waste is piling up.⁶

Governments and businesses in this global value chain too often cut corners by undermining human rights standards, safety regulations, and environmental precautions, in the pursuit of profits. Powerful businesses repeatedly turn a blind eye to or are complicit in economic crimes, are causing or contributing to human rights and environmental abuses or are linked to such abuses in their supply chains. Governments fail to publicly investigate potential or actual corruption, environmental pollution, and human, financial, and labour exploitation, let alone act to prosecute when found or provide remedy to the victims.

THE PRINCIPLES

Because these risks concern both human rights and the environment, a wide range of human rights and environmental organizations have decided to work together to put forth expectations for businesses and governments to reduce the above risks. **Critically, by establishing these demands jointly, we are showing that respect for human rights and climate solutions go hand in hand, that one cannot be advanced without the other.**

If the energy transition is facilitated by human exploitation, dispossession, and environmental harm, we will look back on this critical time with regret. It does not need to be like this. The transition can have positive impacts for both the Global North and Global South. Governments and businesses in the battery value chain have an opportunity to shape an energy transition which does not repeat the injustices of the fossil fuel-based economy and provides a model for other industries. Many businesses in the battery value chain position themselves as global leaders in sustainability, but risk destroying their reputations unless they take necessary action.

⁶ There is currently some recycling (though generally only for Co, Ni, Co), but there is a need for greater collection rates, greater recycling rates & recycling of all materials not just a few metals. Harper, G., Sommerville, R., Kendrick, E. *et al.* Recycling lithium-ion batteries from electric vehicles. *Nature* **575**, 75–86 (2019). <https://doi.org/10.1038/s41586-019-1682-5>

DEMANDS OF BUSINESSES

These demands apply to all businesses along the battery value chain, from extraction to end-consumers, including mining companies, electronic brands and electric vehicle and battery manufacturers. They apply, equally, to financial institutions such as banks and investment funds.

1.1 Respect Human Rights and the Environment

Businesses must ensure that their operations, as well as those of their subsidiaries and suppliers, adhere to international environmental and human rights standards.⁷ Businesses must continuously and proactively identify, prevent, mitigate and account for how they address actual and potential risks to people and the environment linked to their operations, products and business relationships and provide adequate remediation in case of adverse impacts. Businesses must also comply with all existing laws, or international environmental standards (whichever is stronger) pertaining to the protection of the environment, health and safety, natural resource extraction and management, wildlife conservation, waste management, hazardous material activity, and air, water, land and groundwater pollution.

1.2 Recognize the wide range of human rights that could be impacted

Businesses must not only respond to human rights issues that receive wide media coverage, such as child labour in cobalt mining, but recognize the potentially wide range of human rights and environmental issues that could be impacted by their operations.

1.3 Find solutions, do not run away

When confronted with human rights abuses or environmental harm in their supply chains, businesses can be tempted to disengage from that country or region in order to avoid negative media coverage. But disengaging can itself cause harm to vulnerable communities that rely on these supply chains and also undermine

⁷ The United Nations Guiding Principles on Business and Human Rights outline what is expected from business enterprises to fulfil their responsibility. See UN Office of the High Commissioner for Human Rights, *Guiding Principles on Business and Human Rights: Implementing the United Nations “Protect, Respect and Remedy” Framework* (2011), UN Doc HR/PUB/11/04, www.ohchr.org/Documents/Publications/GuidingPrinciplesBusinessHR_EN.pdf. The OECD Due Diligence Guidance for Responsible Business Conduct, which was adopted in May 2018, offers practical guidance on human rights, environmental due diligence and corruption for businesses, <https://www.oecd.org/investment/due-diligence-guidance-for-responsible-business-conduct.htm>.

efforts that others are making to develop sustainable solutions. Instead they should support these solutions.⁸

1.4 Be Transparent

To demonstrate their respect for human rights and environmental standards, extractive companies and purchasers of battery minerals must “know and show” where and under what conditions their minerals are being sourced and batteries manufactured. This information, as well as how they identify and address potential and actual harm, in terms of both human rights and environmental impact, should be available publicly on an ongoing and timely basis to allow for greater coordination and accountability, and be regularly updated. Companies should also identify and publicly disclose their greenhouse gas emissions, throughout their operations (including for example in mining and manufacturing processes), and make relevant information about their emissions and mitigation efforts public, including of all their major subsidiaries and affiliates and, as far as reasonably practicable, of their supply chain.

1.5 Respect and work with affected Communities and Indigenous Peoples

Businesses must consult, communicate, and continuously engage with both affected and potentially affected rights-holders, including communities living close to mines, refineries and factories. In cases where affected communities are Indigenous, businesses must consult with them in order to obtain their free, prior, and informed consent for the proposed operation. Businesses should only source minerals from operations where the affected communities have given consent for mining operations.

1.6 Respect the rights of Workers

Businesses must respect the rights of workers, including the right to information; occupational health and safety standards, the right to refuse unsafe working conditions, and freedom of association and collective bargaining to improve their working conditions and wages.

1.7 Businesses should regard environmental and human rights defenders as allies, not opponents.

Businesses should refrain from making statements or expressing views that discredit, denigrate or stigmatize environmental and human rights defenders.⁹

⁸ For example, in the case of issues connected to cobalt mining in the DRC, see: Mark Dummett, *The Cobalt Supply Chain's Choice*, Benchmark Minerals Q2 Review 2020.

⁹ Amnesty International, *Time to Recharge*, 2017, <https://www.amnesty.org/en/documents/afr62/7395/2017/en/>

They should conduct meaningful consultations and meetings with them at critical phases of project planning and implementation, and disclose in a timely manner all relevant information about business projects, including potential impacts on human rights and the environment.

1.8 Business must conduct assessments of the human rights risks linked to their security arrangements

Businesses that engage with public and private security providers must carry out due diligence to identify, prevent and mitigate risks linked to the security arrangements of their operations including the potential for violence, as well as assess the human rights record of public and private security forces and the root causes of any or potential conflict. They should consult with governments and communities on their security arrangements and have regular meetings with public security and relevant stakeholders. Businesses must report any allegations of human rights abuse linked to their security arrangements. Businesses should include the Voluntary Principles on Security and Human Rights in their contracts with private security providers and ensure that staff have human rights training.¹⁰

1.9 Do Not Pay Bribes, Tackle Corruption

Businesses along the battery value chain should not directly or indirectly, offer, promise, give, or demand a bribe, “facilitation payments” or other undue advantage to obtain or retain business or other improper advantage. Businesses should have whistleblower hotlines and protection policies for whistleblowers, training, supplier codes of conduct, and the power to annul contracts in case of suspected bribery or extortion. Businesses should comply with tax transparency standards such as the Extractive Industry Transparency Initiative and Payment-to-Government legislation, and be transparent about the steps they take to avoid corruption.¹¹ They should also commit to not engage in other areas of corruption or in aggressive tax avoidance and minimisation structures.

1.10 Refuse Seabed Minerals

Businesses should publicly commit not to source seabed minerals. Businesses should proactively support a moratorium to keep the deep sea off limits for mining.

1.11 Pursue Resource Efficient Design, Repair, and Reuse

¹⁰ <https://www.voluntaryprinciples.org/>

¹¹ <https://eiti.org/>

Manufacturers must design batteries for maximum resource efficiency, including innovations to use fewer materials and minerals, extend battery lifespans, repurpose retired batteries, and ensure cost-effective, safe, and energy-efficient recycling. Manufacturers must design devices and vehicles in ways that batteries can be removed with standard tools without damaging the product and must provide instructions for safe removal for all current and future products. As battery manufacturers invest in alternative battery chemistries, they must continue to follow the demands laid out here. Beyond batteries, car companies must design vehicles that are smaller, lighter, and more energy-efficient (as this reduces the size of batteries and material needs), and that are designed and marketed to encourage car sharing.

1.10 Work Towards 100% Recycled Content in Batteries and Safe Recycling

Manufacturers of battery technologies must dramatically scale up their use of recycled minerals and must design batteries for safe and simple disassembly and reuse of suitable components with efficient recycling of all the other battery minerals and materials they contain. Manufacturing should minimize and where possible avoid the use of hazardous materials. Businesses running recycling operations must guarantee workers' rights to safe and healthy working conditions, and communities' rights to a healthy and clean environment. Designing cars and electronics with recycling in mind allows for the device to live on even after its first battery's capacity begins to diminish. It should be simple to safely remove a battery for recycling or a second life in onsite storage. Batteries should not end up in landfills.

1.11 Transition Fully Away from the Internal Combustion Engine (ICE) as soon as possible.

Phase out the sale of new vehicles powered by the internal combustion engine in line with science-based 1.5 degree emissions reductions targets.¹²

1.12 Support Rapid Transition Towards 100% Renewable Energy Grid

Companies should also shift their corporate energy use to 100% renewable energy and actively support strong renewable energy policies. Battery manufacturers should aim for a near term battery carbon footprint of no more than 30kg CO₂ or less per kilowatt hour of battery produced.

¹² Greenpeace European Unit, *Ten Years Left To Say Goodbye To Petrol, Diesel And Conventional Hybrid Cars*, 20 September 2018, <https://www.greenpeace.org/eu-unit/issues/climate-energy/1575/ten-years-goodbye-petrol-diesel-engine-cars/>

DEMANDS OF GOVERNMENT

2.1 Legally Require Businesses to Respect Human Rights and the Environment

Governments should legally require businesses to respect human rights and the environment and to undertake human rights and environmental due diligence on their value chain. Their duty to protect from harm by third parties extends to the entire battery value chain. They should require businesses to publicly report on their due diligence policies and practices. Governments must also enact appropriate steps for monitoring and enforcement of businesses' responsibility to respect human rights and the environment and their due diligence and public disclosure obligations and provide adequate punitive measures for non-compliance. Governments should provide businesses with guidance on risks linked to specific minerals or locations.

2.2 Enforce Regulations to Ensure Respect for Rights

Governments should enforce laws and regulations obliging businesses to respect the rights of affected communities and workers. During the consultation phase, governments must ensure that companies provide communities with access to meaningful information about the potential risks as well as potential benefits of a project so that people can make informed decisions. In cases where Indigenous peoples are potentially affected, governments must ensure that the affected communities are consulted in order to obtain their free, prior, and informed consent. Governments should work with communities to establish no go zones as desired and enforce no mining in these regions. Governments should establish and effectively enforce strong labor standards and ensure workers' right to organize is respected.

2.3 Enforce Environmental Protection Laws

Governments must effectively monitor and enforce compliance with environmental laws and hold companies to account when they violate these laws. Requirements to minimize air pollution, maintain clean and sufficient water resources and healthy soil, and protect biodiversity must be established, monitored, and swiftly enforced when there are violations. Mining operations in violation of environmental protection laws, including strict requirements on restorations and waste management must cease operations until corrected. If scientific uncertainty exists with regards to the risks and possible impacts of mining activities on adjacent natural resources, and these impacts could lead to significant, irreversible environmental harm, then governments should apply the Precautionary Principle, a guiding norm in international environmental law.¹³ This may include a moratorium on mining activities until the necessary information is obtained to resolve the uncertainty of possible irreversible harm. Governments must ensure that companies have adequate financial assurances in place for remediation and closure once their mines are exhausted.¹⁴

¹³ United Nations, *Rio Declaration on Environment and Development*, 1992, Principle 15, <https://www.cbd.int/doc/ref/rio-declaration.shtml> “In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.” See also:

the United Nations, *UN Framework Convention on Climate Change*, 1992, https://unfccc.int/files/essential_background/background_publications_htmlpdf/application/pdf/convenq.pdf; and United Nations, *Convention on Biological Diversity*, 1992, <https://www.cbd.int/doc/legal/cbd-en.pdf> the UN Framework Convention on Climate Change and the Convention on Biological Diversity

¹⁴ BC First Nations Energy and Mining Council, *Using financial assurance to reduce the risk of mine non-remediation: Considerations for British Columbia and Indigenous governments*, November 2019, <http://fnemc.ca/wp-content/uploads/2015/07/Using-financial-assurance-to-reduce-the-risk-of-mine-non-remediation.pdf>

2.4 Investigate and Respond to Human Rights and Environmental Abuses, Ensuring Access to Remedy

Governments must investigate human rights abuses and environmental harm perpetrated by businesses on their own initiative as well as on reports by third parties. They should provide clear avenues for seeking justice for the victims to ensure access to remedy. Home state governments of companies accused of human rights or environmental harms at overseas operations must remove barriers to remedy for foreign victims.

2.5 Work Jointly to Address Human Rights and Environmental Risks Linked to Business Activities

The governments of States where businesses involved at any stage of the battery value chain are based should work closely with, and support, the governments of States where battery materials are extracted or batteries are manufactured to ensure that businesses along the entire supply chain respect human rights and environmental standards. Home-state embassy staff should refrain from engaging in economic diplomacy at the expense of human rights.

2.6 Eliminate and Penalize Corruption

In countries where battery minerals are extracted or batteries are manufactured, State and local governments should refrain from requesting or accepting bribes from businesses involved in the sector. The governments of States where such companies are incorporated should adopt and duly enforce foreign bribery legislation by investigating allegations of serious corrupt practices and other economic crimes.

2.7 Oppose Deep Sea Mining Activities

Governments should not sponsor any deep sea mineral exploration or exploitation in the high seas nor permit deep sea mineral exploration or exploitation in their national waters. Furthermore, governments should support a global moratorium on deep sea mineral exploration and extraction. Governments participating in the International Seabed Authority processes should advocate for the global moratorium on deep sea mining to extend to the granting of mineral exploration and exploitation licences and to the further development and finalisation of regulations for mining the seabed.¹⁵

¹⁵ <https://www.isa.org.jm/>

2.8 Support Policies to Reduce Reliance on Car Travel and the Number of Cars on the Road

Governments must ensure low carbon and cleaner ways of traveling by, for example, redesigning city space to make provisions for walking, cycling, and affordable, physically accessible and convenient public transport, providing remote services to reduce the need to travel, and incentivize shared journeys and shared vehicles to reduce the number of cars on the road. Governments must ensure that those with lower incomes have access to affordable, green and safe forms of transportation.

2.9 Set Deadline to End Sales of New Internal Combustion Engine Vehicles in line with science-based 1.5 degree emissions reductions targets

Cars that do remain on the roads must be battery electric vehicles and should be smaller, lighter, less powerful and more energy efficient (as this reduces the size of batteries and material needs), as well as designed with increased car sharing in mind. Governments should invest in public transport systems powered by renewable energy in both rural and urban settings and provide financial incentives to make transition to electric vehicles (EV) fair and accessible to those in rural areas and/or those with lower incomes.

2.10 Set standards for energy efficiency of products and vehicles to save electricity and resources.

Product design determines energy consumption and the ability to use smaller and more resource efficient batteries. An SUV will require over 10% more energy to drive the same distance than a comparable sedan, requiring a similarly larger battery to provide it with the same range. Hence, setting clear standards and incentives (e.g. through taxation) for energy efficient vehicles saves energy during the use phase and requires smaller and less resource intensive batteries.

2.11 Enforce Minimum Lifetime Requirements for Batteries

Governments should require EV batteries to last a minimum of 12 years or 200,000 miles (320,000km), whichever is longer, in their first intended use. For other electronics devices, lithium-ion batteries' longevity must also be extended to last a minimum of 5 years and devices must be designed for safe and cost-effective battery replacement.

2.12 Mandate Repair, Collection and Recycling

Governments should remove proprietary barriers to the reuse and refurbishing marketplace, and use regulation to increase the durability, repairability, and reuse

value of battery powered products. Pass “Right to Repair” reforms, creating durability labeling, require all batteries be removable with standard tools, and invest in battery reuse research. Governments should also set 100% collection targets for used EV batteries, with material recovery targets of at least 90% - and higher where feasible - for critical battery materials such as cobalt, lithium, nickel, copper. Governments should encourage the market for secondary materials with the aim of moving towards fully recycled batteries.

2.13 Ensure a Rapid Transition to 100% Renewable Energy Grid

To ensure transport and manufacturing are powered by renewable sources of energy, governments must rapidly shift their electric grids to 100% renewable energy, with developed countries achieving this by 2040 at the latest. Governments should support Green New Deal-style plans and investments in renewable energy solutions rooted in a just transition for frontline communities and an ongoing respect for human rights and free and prior informed consent for projects, as laid out in these demands.

2.14 Require Battery Carbon Footprint Reporting and Set Minimum Thresholds

Governments should establish mandatory requirements for the measurement and reporting of each battery’s carbon and energy footprint. Once reliable data and verification processes have been established, governments should set minimum carbon footprint thresholds, above which batteries should be phased out. Use of hazardous materials in battery manufacturing processes should also be phased-out and tightly controlled to ensure a toxic-free battery value chain.