

Congolese Cobalt and Consumer Electronics

Katanga Calling



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Cover image: Women at work between the residues
(stériles) of the Kipushi zinc-copper mine in Katanga.

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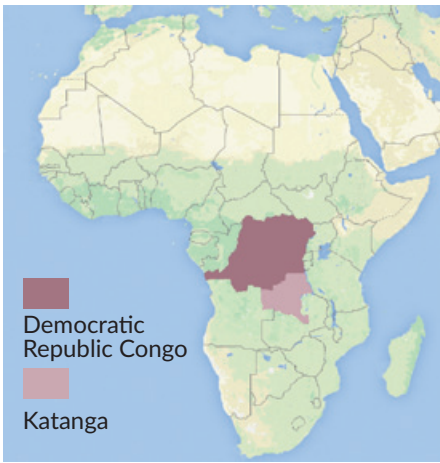
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A young girl carries around 40kg of rocks from a mine in DRC.

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Introduction

Copper and cobalt mining in Katanga urgently needs to evolve towards responsible practices.

Responsible sourcing of minerals is increasingly considered a desirable way of doing business: fortunately, as resource extraction often still fuels armed conflicts when no action is taken to prevent this. One of the best-known resource-funded conflicts is the war in the eastern provinces of the Democratic Republic of the Congo (DRC). In the DRC, impunity and weak public institutions result in recurring violence, in which control over Congo's rich mineral resources remains a central catalyst.

Even in less violent circumstances, mineral extraction risks causing corruption, social problems issues and environmental destruction. The situation in Katanga, DR Congo's southernmost province and home to large deposits of copper and cobalt, is a poignant example. Although the security situation in Katanga is much better than in its neighbouring Kivu provinces, mining takes place at a high human and environmental cost. Communities pay a brutal price when they lose their livelihoods to make way for mining projects. Workers risk their health and lives in Congo's dangerous pits.

Cobalt to gadget

The cobalt taken from those mines is used in consumer products like mobile phones and laptops, car batteries, tools, lenses, jewellery and healthcare. Ethical sourcing of minerals has been central to the debate about the supply chain responsibility of electronics companies further down the line. Some specific steps have been taken regarding conflict minerals. In the USA, the 2010 Dodd-Frank Act requires listed companies to disclose the source of minerals in their products. The European Commission has proposed a conflict minerals regulation currently under discussion in the European Parliament.

However, much more is needed in order to improve the human rights and environmental conditions in the mining areas of our world. This brochure reports on the human and environmental costs of cobalt extraction in Katanga in the DRC.



Copper mine in Sakania, Katanga, owned by Eurasian Resources Group.

Copper and cobalt from Katanga

Katanga province harbours some of the largest cobalt reserves in the world.

The Democratic Republic of the Congo (DRC) is the world's largest cobalt producer. The country, nearly two-thirds the size of the European Union, is endowed with a wealth of natural resources in almost all sectors, of which the mining sector is the most prominent.

The province of Katanga, located in the south, has vast deposits of high-grade copper and associated minerals such as cobalt, zinc and lead. These resources are concentrated in the District of Haut-Katanga, in the cities of Lubumbashi, Kolwezi and Likasi, and in the townships of Tenke and Fungurume. The reserves of these metals are estimated to be some of the largest in the world.

The mining sector in Katanga has long been a monopoly of Gécamines, the state-owned company that made the DRC the world's largest producer of copper and cobalt. In the 1990s, Gécamines faced numerous crises that eventually led to its bankruptcy. International financial institutions such as the World Bank subsequently called for the privatisation of the mining sector. During this period, there was a mining scramble in both the artisanal (informal) and industrial (formal) mining sectors. Exploitation was characterised by rampant corruption.

Privatisation of the mining sector did not bring about improvements to the living conditions of the people near these companies, which remain precarious. Most of the local people still have no access to drinking water, health care, education or electricity.



Entrepreneurs in Katanga's extraction business enjoy Lubumbashi's golf course.


GWENN DUBOURTH OUMIEU

Human Development

Despite the export value of its minerals, which runs to billions of dollars, the DRC lags at the bottom of the UNDP's Human Development Index (HDI). The index is a tool for assessing long-term progress in three basic dimensions of human development: a long and healthy life, access to knowledge and a decent standard of living. The DRC is ranked 186 out of 187 territories, with a HDI value of 0.338, just 0.002 points above its HDI in 1980. Of Congo's estimated population of 75.5 million people, 87.7 per cent live in poverty.

Profits for some

While Katanga's minerals are extracted and exported to the benefit of some, numerous communities have become the victims of environmental pollution associated with the mining. They have nowhere to turn for support. They have often literally been raided by the mining companies. The right to free, prior and informed consent (FPIC) is virtually non-existent. Most communities have never been consulted in advance, let alone consented to these operations in their villages.



Mining activities have depleted water resources. The people of the village of Kawama, Katanga, have to walk several kilometres to get clean water.

Informed consent

With Free, Prior and Informed Consent (FPIC) communities have the right to say yes or no to a proposed project. The principle has evolved from the human rights position that force or involuntary conditions imposed on impacted peoples are not legitimate development mechanisms. It demands that the community can make a choice on the basis of adequate information about the type, risks and benefits of a potential project. FPIC would allow communities to negotiate a mutually satisfactory arrangement with a company or government. It is a process that would start long before mining operations commence, and that would not end as long as the operations continue.

The reality in Katanga is very different. Villages are relocated and agricultural land is often confiscated without the community being consulted at all. Adequate compensation for confiscated land simply does not happen. These practices constitute violations of national and international laws that are supposed to protect the affected communities.



Mining sectors

For lack of other livelihood opportunities, thousands of Congolese resort to small-scale mining.

Mining in Katanga takes place in both the formal and informal sectors, and the two often interact. Cobalt and copper mined informally is also processed in the refineries of the industrial business networks. According to the Ministry of Mines, the industrial mining sector in Katanga has created 40,000 jobs. It is estimated that a further 500,000 people are working as artisanal miners in the province.

Artisanal mining

It is estimated that up to 20-30 million people in the developing world practise artisanal or small-scale mining. The sector supports three to five times more people indirectly. Artisanal or small-scale mining is characterised by low levels of mechanisation, unknown quantities of ore deposits, few safety standards, poorly qualified personnel and low productivity. Artisanal mining is often undertaken informally or illegally, and with little consideration of environmental impacts. The unemployed and underemployed in poor countries are increasingly resorting to such practices because to them it is a livelihood opportunity. Minerals become 'the natural resource of last resort', and offer a more secure income than farming.

Source: ILO, IIED



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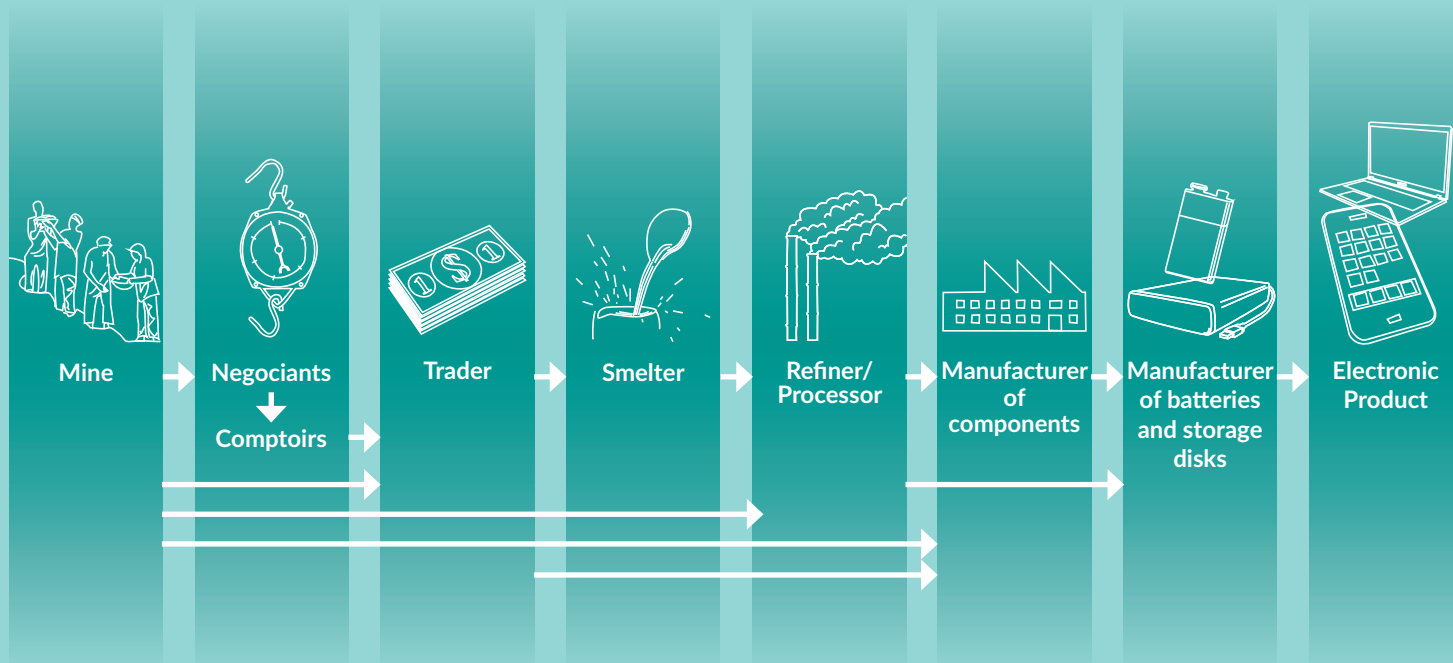
Young children at work in Kipushi, Katanga.

In Katanga, artisanal mining exists in both formal and informal settings. Many mining companies source the ores for their processing factories from artisanal sources, rather than developing their own concessions industrially, which would require major investments.

Formal artisanal mining takes place in designated zones, managed by 'cooperatives'. These cooperatives are supposed to further the interests of the miners, but in practice they consist of powerful local businessmen and politicians. They often deploy armed soldiers on site to ensure that miners, who have to sell their entire production at a fixed, usually below-market price to the 'cooperative', do not take their production elsewhere to get a better price.

Informal artisanal mining takes place irregularly in undesignated areas, but also within the concessions of mining companies. The police occasionally expel the illegal miners from the concessions, and these evictions sometimes result in violent riots. To avoid social tensions, the authorities may turn a blind eye to the irregular mining activities.

Cobalt in the Electronics Supply Chain



This visual is not intended to be a complete representation of the supply chain. Source: EICC/GeSI/Resolve

Cobalt: A most valuable by-product

Cobalt is an essential ingredient of rechargeable batteries for mobile devices and electric cars.

Cobalt is mostly produced as a by-product of copper and nickel mining activities. The DRC is estimated to harbour half of the world's cobalt reserves of 7 million tonnes. Most of the unrefined cobalt ores are exported for refining. China is the world's largest producer of cobalt, importing almost all of its cobalt raw material from the DRC.

Cobalt is used as a chemical catalyst, for example in the production of PET bottles and packaging, for crude oil refining and to process coal gas into liquid fuel.

The growing demand for cobalt is mostly driven by the increased demand for rechargeable li-ion batteries, which now accounts for more than 40 percent of cobalt production. An average li-ion battery containing cobalt consists of 60 percent of the mineral by weight. The batteries are used in devices such as smartphones, tablets and laptops. The increasing popularity of electric vehicles will also add to the growing demand for cobalt. The batteries of these cars contain 2 to 8 kilos of cobalt each.



DRAGONIMAGES

Cobalt is used in rechargeable batteries for smartphones, laptops and electric cars.

Fair devices?

Transparency about the origin of cobalt used in electronics is mostly still far away.

Some players within the electronics industry are aware of their responsibilities in relation to the extraction of metals in their supply chain. An inspiring example is the Amsterdam-based social enterprise Fairphone, which is working towards a 100 percent responsibly-sourced smartphone. Fairphone is Europe's fastest-growing tech startup.

However, very few companies are transparent about the sources of the cobalt and other minerals in their products, even though consumers are increasingly demanding such transparency and responsible practices from the brands they are buying.

The past twenty years have shown that voluntary initiatives, laudable as they may be, bring small changes at best. They need to be accompanied by enforceable mechanisms and binding regulation, creating a level playing field between the companies involved. Research by SOMO

shows that most European companies only disclose the origins of potential conflict minerals if they were obliged to do so by the US Dodd-Frank Act.

“Consumers have voted with their wallets. They show that there is a market for ethical electronic products.”

Bas van Abel, Fairphone

The following pages summarise the controversies surrounding cobalt extraction in Katanga: air and water pollution, threats to biodiversity, and working conditions below any basic standard.



In Kawama, near the Luswichi industrial mine, a village was bulldozed, sweeping away a villager named Dido Kasongo while he was sleeping at home.

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Never consulted

Communities are left in the dark about mining plans on their territory

Local communities are often caught off guard when mining companies move in. One of the many examples is in the villages surrounding Kisanfu, in the northern part of Basse Kando, where a Chinese-owned company is mining in the Myunga forest and processing its ore in a copper and cobalt factory. According to the local communities, they have never been consulted or informed about these operations.

A football as “social work”


A monitoring team of Premicongo checking up on the villages concerned found that “the only proof of social work by the company consisted of some school furniture, a football, renovation of the ceilings of a private health centre, and a contribution of 1,000 US dollars to the local chief, disguised as a contribution for building a school.” Meanwhile, the NGO reports, the school buildings are in a ruinous state and the only local water pumps have been provided by Unicef.

Employment

Around Kisanfu, not only did the local communities never consent to the company entering the area. They do not even enjoy any benefits from its operations in terms of employment, as the company mostly brings in workers from elsewhere. Local people who do manage to get a job with the company report being discriminated against. They are not allowed to use the food and transport facilities that the workers from outside enjoy.

“The community is worse off now compared to before the arrival of the company.”

Premicongo



The GTL's furnace in Lubumbashi is the second largest in the world. The plant produces 5,000 tonnes of cobalt each year, representing 9 percent of the world market.

The air we breathe

The furnaces of ore-processing factories pollute the air of Katanga's cities

In the town of Likasi, the Groupe Bazano mining company has been operating a smelting plant since 2007. The pyrometallurgic plant, in which ores are treated with heat, is located in the residential quarter of Kamatanda.

Inhabitants of the area complain about dust caused by the company's traffic, as well as smoke from the plant furnaces. Residents claim that they approached the company in 2009 with a request to resolve the situation, but that there has been no solution since. In the rainy season, the roads are churned into mud by all the traffic. During the dry season, the houses are inundated with dust.

The Groupe Bazano management maintains that the factory was there first, and that the residential quarters followed. According to the Congolese NGO Premicongo, however, the Kamatanda quarter was established many years before the plant was built.

Premicongo notes that the amount of people suffering from coughing and pulmonary diseases appears to be

increasing in the area. The productivity of fruit trees also seems to have declined. But Premicongo lacks the means to establish whether these symptoms are directly related to atmospheric pollution caused by the operations of Groupe Bazano in Likasi.

Unfortunately, comparable cases of severe air pollution exist elsewhere in Katanga. In Lubumbashi, for example, local communities are facing numerous impacts of operations by the Chemaf mining company there, including air pollution.

“The smoke often dries our plants; the leaves fall off our trees and the smoke has made some people sick, especially among the children and the elderly.”

A resident comments on the smoke from the Chemaf factory's chimneys in Lubumbashi



Congo's protected areas are not safe from mining activities.

REUTERS/ FINBARR O'REILLY

The tragedy of Basse Kando

The invasion of the nature reserve by mining companies has led to the disappearance of elephants, hippos and other endangered species.

In Congo's district of Kolwezi, the Basse Kando or Lower Kando area has been listed as a protected reserve since 1957. Despite its protected status, mining authorities in DR Congo have been granting concessions for the area for years.

Weak governance

After 1998, the end of President Mobutu's regime, state structures in the DRC rapidly deteriorated. Many protected areas in the DRC, including Basse Kando, were invaded by mining activities. As the Congolese NGO Premicongo concludes, the presence of mining companies in the Basse Kando reserve is a symptom of the weak governance capacity of Congolese state authorities.

In Basse Kando, companies including the Groupe Bazano, Tenke Fungurume Mining, Semex and Somika moved in for exploration; conducting drilling, clearing forests, and essentially destroying the reserve.

Until the early 2000s, the Basse Kando reserve was home to many wildlife species protected by Congolese legislation, some of which are listed as endangered species by CITES: elephants, hippos, black antelope, rock hyraxes and a variety of plant species. The invasion of the reserve by mining companies has led to the disappearance of most of these species. The remaining elephants migrated to Zambia. The hippopotamus population, amounting to about 400 in 2003, has been reduced to just 50 hippopotamuses today.



JONATHAN HEGGER

Species under threat from mining operations include elephants and hippos.

“This situation constitutes a danger to the protected areas.”

Felix Mbayo Lukasu Wa Kabulo, Institut Congolais pour la Conservation de la Nature (ICCN)

Compliant?

One of the companies operating in Basse Kando is Phelps Dodge Company (PDC), a subsidiary of the multinational corporation Freeport-McMoRan Copper & Gold. Phelps Dodge denies that its concession is located in a protected area. The company maintains that its research permit is in compliance with DRC law. What is more, PDC ignores the self-proclaimed policies of the mother company Freeport-McMoran as well the principles of biodiversity conservation and continuous improvement of environmental performance established by the International Council on Mining and Metals, of which Freeport-McMoran is a member.



A young girl collecting water near the village of Kisanfu.

GEORGES SENGGA

The wasted waters of Kafubu

Effluents of ore-processing factories turn rivers into toxic drains

The Kafubu valley, southeast of the province's capital Lubumbashi, has always been green. The populations living in the many villages along the river have traditionally relied on gardening and artisanal fishing for their livelihood. They obtained water from wells dug along the river. The farms located in this valley are the main suppliers of fruit and vegetables to neighbouring urban areas.

However, since mining operations in the province were resumed in 2005, the Kafubu river has been increasingly used as an effluent drain by various mining companies. The Congolese NGO Premicongo concluded that companies such as Somika and CMSK are contributing to the pollution of the Kafubu river.

Luswichi

The Compagnie Minière du Sud Katanga (CMSK), a subsidiary of Gécamines, has been mining a copper and cobalt deposit in Luswichi, near Lubumbashi. The ores from the mine are transported to Kipushi for processing by leaching: the process of separating soluble from insoluble substances. Effluents from the plant in Kipushi are released into the Kafubu river, which runs through the southern part of Kipushi city and Lubumbashi town.

Tanks of environmentally hazardous substances are stored in the Chemaf factory, Lubumbashi. The local population complain about potentially dangerous chemical discharges from the factory.

GWENN DUBOURTHOUMIEU



Because of the mining companies' waste dumping in the river, the whole Kafubu valley is dominated by a persistent, disgusting smell. Water from wells has become unsuitable for consumption and has a bad taste and smell.

Vegetable crops cannot be produced any more, as it has become impossible to water them during the dry season. According to the Congolese monitoring NGO Premicongo, vegetables react to water from the river as if they were put in boiling water.

In fish ponds, fish die while struggling to hold their heads out of water, as if they were suffocating. The pollution of the Kafubu valley not only destroys its biodiversity, but also the livelihoods of the riverside communities.

Unfortunately, the Kafubu valley is just one of many places where mining operations have severely polluted waterways. Premicongo has found comparable negative impacts in other places, including tributaries of the Congo river in Kolwezi district.

“Because of shortcomings in the legislation, many victims have not been compensated, and several other companies responsible for this situation have nothing to worry about.”

Premicongo



Children spend around ten hours each day washing and sorting the ore in water and mud.

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Exploited labour

Child labour and unhealthy, dangerous working conditions are common phenomena.

Several mining companies, some of them Chinese-owned, source their ores from artisanal miners working near Likasi. Parts of a large mining area there are managed by an artisanal mining cooperative. The cooperative is supposed to invest mining profits in agriculture, as a means of preparing for the time after the mine is depleted and closed. In reality, no agricultural activities are undertaken by the cooperative, which is managed by local businessmen and politicians. The miners are obliged to sell their entire production at a fixed price to the cooperative, which then sells it to a Chinese-owned group.

Shootings

Under these conditions, the miners do not profit from their production and cannot invest in their future. At the same time, they have no other choice if they want to continue mining at this location. The only ones who have profited from the rising price of copper have been the cooperative's representatives. Peaceful attempts by the workers

to demand a fair remuneration and respect for their rights have resulted in arrests, and even in the miners being shot at with live ammunition. Several of them died as a result.

Dangers

Additional research has shown that labour conditions in Katanga's mining sites often involve child labour and dangerous conditions for the miners, known as creuseurs. They often work without safety measures in dangerous pits. These can be up to 80 metres deep, with the risk of landslides and collapsing tunnels. Due to the unhygienic conditions, illnesses are rampant among these miners, research by the NGO Bread for All has found.

“The system in place here keeps the artisanal miners in semi-slavery.”

Premicongo



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Congolese students in a school built by mining company Eurasian Resources Group, Sakania, Katanga.

Towards a hopeful perspective

It's time for mining companies to walk the talk.

The stories about the mines and processing plants above are only a few of the cases in Katanga where human rights are violated and the environment is harmed. There are also well known abuses at locations such as the Tenke Fungurume copper and cobalt mine between Likasi and Kolwezi, the Ruashi copper and cobalt mine near Lubumbashi, and many more.

It seems the rule rather than the exception that mining operations in the DRC, aimed at sourcing the minerals that are essential to the production of electronics and chemical catalysts, are characterised by a lack of transparency and a lack of compliance with Congolese and international regulations and guidelines on responsible mining.

Land-grabbing, the destruction of livelihoods, discrimination and the exploitation of workers are widespread. At the same time, access to basic human needs such as clean water and air, and fertile soils for crops, appears to be impeded rather than enabled by the arrival of the mining companies.

Access to electricity and education, where available, is often thanks to humanitarian agencies rather than the mining companies. Unfortunately, the situation on the ground often has little in common with the fine words found in the corporate social responsibility guidelines and reports of the mining companies.



Miners ('creuseurs') discussing their situation with Fairphone.

FAIRPHONE

From conflict-free to responsible mining

Best practices need to be accompanied by legislation, collective action is required.

In the DRC, as in many other developing countries, weak governance means that national and local governments fail to enforce legislation aimed at protecting their citizens and the environment. This makes it only more important that mineral traders and companies further down the supply chain take responsibility for the impacts of cobalt mining. Rather than merely continuing to take advantage of low prices and weak implementation of laws, they ought to work towards a phase-out of all abuses in the sector.

Hopeful prospects

Many major international brands and NGOs have been involved in establishing conflict free mining activities in the African Great Lakes region. Other organisations have worked hard to set up responsible small-scale gold mining. EarthWorks in the USA is organising sustainable large-scale gold mining in collaboration with jewellery producers. Friends of the Earth is working with electronics brands such as Samsung, Philips and Apple and the Dutch

Sustainable Trade Initiative (IDH) on more responsible tin mining in Indonesia.

Best practices can be found, but a very limited number of companies obtain their minerals from these more responsible sources. The past twenty years have shown that voluntary initiatives, laudable as they may be, bring small changes at best. They need to be accompanied by enforceable mechanisms and binding regulation, creating a level playing field between companies using these minerals.

Business case

Mandatory transparency on the origin of minerals would make a great difference, to the benefit of local communities and environmental protection. It would force a business case for responsible sourcing instead of sourcing for the lowest possible price. It would make those who are lagging behind aware of their impacts on human rights



Artisanal miners climb the mine dump of Lubumbashi. This 14 million tonnes of slags still contain strong contents of cobalt.

and the environment. Transparency would also enable companies to identify risks to their reputation, and tackle these by taking genuine action. In short, transparency is essential to developing responsible sourcing practices.

Environment and human rights

The European Commission's proposed regulation on responsible sourcing of the conflict minerals tungsten, tantalum, tin and gold ('3TG') can be an answer to some of the most distressing human rights violations in conflict and high risk areas – if it makes transparency mandatory throughout the supply chain.

However, a lot more needs to be done in terms of environmental protection, workers' rights and meaningful development for communities. Governments, companies and civil society need to collaborate on this.

Beyond 3TG

Existing and widely-accepted normative standards such as the United Nations Guiding Principles on Business & Human Rights, and the OECD Due Diligence Guidance provide a useful basis upon which regulatory frameworks can be based.

Future regulatory frameworks ought to be flexible enough to cover other resources, like copper and cobalt, that are frequently imported by European companies and that may be linked to conflict, human rights abuses and environmental impact. Current mining practices require drastic change and collective action.

Let's make it happen.



Friends of the Earth Netherlands (Milieudefensie) – a Dutch NGO with 84,000 members and supporters – advocates a sustainable, unpolluted world in which the capacity of the earth is respected and benefits the entire world population. Sufficient resources, energy and nature should remain available for future generations, with a fair distribution of available ‘environmental space’ among all.



The **Centre for Research on Multinational Corporations** (SOMO) is an independent, not-for-profit research and network organisation working on social, ecological and economic issues related to sustainable development. Since 1973, the organisation has investigated multinational corporations and the consequences of their activities for people and the environment around the world.



The **GoodElectronics Network** brings together networks, organisations and individuals who are concerned about human rights, including labour rights, and sustainability issues in the global electronics supply chain, including but not limited to trade unions, grassroots organisations, campaigning and research organisations, academia and activists.



Actions Contre l'Impunité pour les Droits de l'Homme (ACIDH, Action Against Impunity for Human Rights) is a human rights defence organisation based in Lubumbashi, DRC. ACIDH works in the fields of democracy and international penal law, and on economic, social and cultural rights.



PREMICONGO is an NGO working to protect the Miombo woodlands in Katanga province, DRC. It educates actors across various sectors in the DRC to fight against environmental degradation and establish a healthy balance between productivity and environmental conservation. Its activities include monitoring and evaluating the conduct of mining companies in Katanga with respect to environmental norms.



Trucks carrying ore from an industrial copper mine, Sakania, Katanga.