

Jack Shin
Crosswalk Academy
Dublin, California
Democratic Republic of the Congo, International Trade and Conflict
Unplugging the Power Struggle for Cobalt in the DRC



Figure 1.
Luwovo Cobalt mine near Rubaya, North Kivu, the Democratic Republic of the Congo [DRC] March 18, 2014.

The Democratic Republic of the Congo (DRC) is the second largest country in Africa in terms of landmass and the fourth most populous country in Africa. It borders nine other countries, including Angola, Burundi, the Central African Republic, the Republic of Congo, Rwanda, South Sudan, Tanzania, Uganda, and Zambia. Over 200 ethnic groups are represented in the country, with over 250 languages and dialects spoken throughout. Kinshasa, the capital city, is the second largest French-speaking city in the world (Embassy of the Democratic Republic of Congo). With this incredible diversity and multiculturalism, it is quite sad that the DRC is among the five poorest nations in the world. In 2022, nearly 62% of Congolese, around 60 million people, lived on less than \$2.15 a day. About one out of six people living in extreme poverty in sub-Saharan Africa lives in the DRC (World Bank, 2023). The average Congolese family is composed of four to five children, traditionally with the father in charge of the household. Due to poverty, however, the family often splits up. Most families farm to feed themselves, and children typically help with raising crops and fetching water for the family by walking miles every day by foot for hours. It is difficult for children to attend school because of their arduous daily tasks, and most children drop out of primary school. Families often choose to send only boys to school (Fargo Schools, 2016). Although the Congolese government has declared free access to primary education for all children, schools do not operate across the country. (France 24, 2021) .

Mungu* is a 12-year-old boy living in the city of Goma, which sits on the northern shore of Lake Kivu, located in North Kivu province in the eastern DRC. Mungu's parents and most of his siblings were killed

during the ongoing tribal and military conflicts in the region. Since the 1990s, the Congolese have endured over two decades of armed conflict with over 5.4 million people dead due to war-related causes and over 5.6 million people displaced, making it the deadliest conflict since World War 2 (Global Conflict Tracker, 2023). Mungu has been so traumatized that he physically cannot sit still, look anybody in the eye, or hold a normal conversation. He lives in a place called Bohemba, which was started as a refugee camp and lacks any proper structure of leadership or community. Mungu has to fetch water from Lake Kivu every day because that is the only place where people can obtain water. Most of his family members, however, were killed with machetes on that very lakeshore, and after they were killed, their bodies were disposed of directly into the lake. So every day that Mungu walks to Lake Kivu, he knows that his parents and siblings are lying at the bottom of that lake. Sadly, this lake is the only source of water he has for survival. Mungu is absolutely dependent on Lake Kivu to live.

Ironically, Lake Kivu also represents the devastating cause of his parents' death. Due to the incredible abundance of natural minerals in the country of DRC as well as the copious amounts of extractable methane in Lake Kivu, the mining industry has been dominated for decades by conflict between military groups, foreign companies, and the government for control. According to the World Bank, the DRC's vast mineral wealth consists of 1,100 mineral substances spread across 2.3 million acres, estimated to be worth over \$24 trillion in untapped deposits (World Bank, 2023). While the crisis in the DRC is complex—originating from Belgian colonial rule in the 19th century and continuing to be fueled by tensions over land, tribal rights, ethnic identity, regional power struggles, and the fundamental weaknesses of the DRC as a state—the trade in these “conflict minerals” remains one of the key drivers of the crisis (Enough Project, 2009). The same armed groups that reap enormous profits from the mineral trade in the DRC regularly commit atrocities as they compete to control the region's mines and transportation routes and also impose ‘taxes’ on those involved in this trade which amounts to extortion (Enough Project, 2009).

Out of these minerals, cobalt is currently one of the most highly coveted in the world because of its significant usage in lithium-ion batteries, which are used to power cars, smartphones, tablets, and laptop computers (Washington Post, 2016). The DRC is the world's main producer of cobalt (Kitco News, 2022). Cobalt production, however, is limited and expensive, containing many risk factors as it is highly toxic and an environmental pollutant. According to a recent Washington Post article, miners and residents who live near mines or smelters in the Kivu region of the DRC have a range of health problems as they are exposed to metals at levels many times higher than what is considered safe (Washington Post, 2022). Studies had found that residents had urinary concentrations of cobalt that were 43 times as high as that of a control group (Environmental Research, 2009). The levels were even higher in children. A study of soil and fish samples from around the mine-heavy city of Lubumbashi found elevated levels of metals and concluded that the area was “among the ten most polluted areas in the world” (Environmental Research, 2009). This type of high and frequent exposure to cobalt has been linked to disorders in the nervous system which develop into neurodegenerative diseases (Research Gate, 2016). Chronic inhalation of cobalt dust can also lead to chronic respiratory tract disorders, lung cancers and death (Research Gate, 2016). Even more disturbing, however, is the connection of cobalt exposure to birth defects. Doctors at the University of Lubumbashi, published a report in 2012 outlining evidence of an increased risk of a baby being born with a visible birth defect if the father worked in the DRC's mining industry (Memoire Online, 2011). The Lubumbashi University doctors have issued reports on birth defects that are so rare,

such as the Mermaid syndrome, that the DRC cases are the only ones documented (Memoire Online, 2011). All occurred in children born in heavy mining regions. In 2022, doctors in Lubumbashi recorded three cases in three months of babies born with holoprosencephaly, an extremely rare fatal condition that causes severe, distinctive facial deformities (Washington Post, 2022).

The unfortunate irony is that cobalt is mined to produce “green” lithium-ion batteries which are lighter and more energy-efficient than conventional lead-acid batteries and aid in decreasing smog from gasoline engines. The mining of cobalt, however, is far from a green environmentalist’s dream. In fact, the environmental impact of cobalt mining may outweigh the reduced carbon footprint of driving an electric vehicle. Once cobalt has entered the environment through mining and coal combustion, it cannot be destroyed (Lenntech, 2019). Ultimately, most cobalt will end up in soils and sediments contributing to all the health hazards described above (Lenntech, 2019). In addition, these lithium-ion batteries have yet to be recycled and resold due to their long life. In fact, the number of people buying them over the next ten years will outpace those who are getting rid of them (Wired, 2018).

In addition to the environmental and health hazards created by the mining of cobalt in the DRC, the international trade of cobalt and other minerals from the DRC is fundamentally linked to armed militia groups. The United Nations and many non-governmental organizations have extensively documented the detrimental effects of this link. More than 100 armed militia groups operate in the DRC as they control the mines, the workers, and the export and shipment of minerals (Mining, 2022). By controlling the mines, armed militia groups force miners to work in desperate conditions while paying them an average of \$1 to \$5 per day (Enough Project, 2009). They also block and control the borders to other countries so that they can bribe buyers and impose exorbitant taxes on minerals that are shipped to international smelting and processing companies (Enough Project, 2009). Profiting from the exploitation of these minerals, these militia groups are then able to buy more weapons and fund their terrorizing activities to control the region despite a 2003 peace agreement (Mining, 2022). Of these armed groups, the March 23 Movement (M23) rebel group is one of the most prominent, made up of ethnic Tutsis who are allegedly supported by the Rwandan government. The M23 continue to wreak havoc in the DRC to this day, committing severe human-rights abuses and violations. Furthermore, neighboring countries such as Rwanda, Burundi, and Uganda contribute to the region’s multiple conflicts by their involvement in the illicit mineral trade, and UN experts regularly accuse all three countries of meddling and profiting from it (Mining, 2022). In 2006, the UN Security Council considered the sanctioning of all illegal mining and trade of minerals in the DRC but concluded that over two million artisanal miners and their families would lose their livelihood because of the fact that virtually all the mines were operating outside of the country’s legal requirements (Enough Project, 2009).

As these mines continue to operate outside of any legal regulations or requirements, the demographic that suffers the most are the Congolese children. Armed militia groups are able to coerce children to work in the mines and then brutally enforce their labor because they have no alternative way of living other than to dig for cobalt by hand in these artisanal mines. Poverty and food insecurity are the main reasons why children drop out of school at a high rate in the South Kivu region and work in these dangerous mines (France 24, 2021). A 2016 report by Amnesty International estimated that over 40,000 children work in the cobalt mines alone without any safety measures or equipment (Amnesty International, 2021). In fact, most of the local population has abandoned farming for mining because of the quick returns (France 24,

2021). In addition, the DRC remains one of the most dangerous places in the world to be a girl or a woman (News Australia, 2014). As children are the ones to suffer the most when it comes to poverty and vulnerability, it is imperative to find a solution to this multifaceted problem of conflict minerals in the DRC, not only in order to harness the country's natural resources for the benefit of its people, but also for the sake of the future generations of Congolese. Ever since the first Congo War in 1996, over 6 million people have lost their lives in the eastern DRC due to violence and conflict, and the war continues to rage on (Council on Foreign Relations, 2022).

The complex crisis in the DRC driven by conflict minerals cannot be easily solved. It is vitally important but extremely challenging to impose laws and restrictions upon the illicit mineral trade without hurting the Congolese people who are barely able to survive because of the constant violent warfare surrounding them and the lack of a strong governmental infrastructure to support their basic needs. A viable solution would require the involvement of many different levels of governmental and business structures, including local villages, regional and Congolese governments, the international community including the UN, China, and the United States, and the cooperation of multinational, private companies whose interests lie in cobalt production (Enough Project, 2009). Such a comprehensive, multilateral approach would have a major impact on resolving the conflict.

First of all, in order to protect the Congolese people from being exploited, the central, driving issue of unethical cobalt production would need to be addressed. Cobalt needs to be produced in an ethical, transparent manner by exposing corruption in the supply chain. In 2019, an NGO called Resolve formed the Public-Private Alliance for Responsible Minerals Trade (PPA) to improve accountability among leaders in government, the mining industry, and the private sector by tracing minerals back to their original source in the DRC. The PPA is composed of 42 member organizations including major companies such as Apple, Sony and Google, governmental agencies such as USAID and the International Conference of the Great Lakes Region, and civil society organizations (US Embassy, 2019). This past June 2023, the PPA sent a delegation of representatives to the DRC to support responsible mineral sourcing and trading and to fund projects complementing Congolese government initiatives and bring benefits to the region (Resolve, 2023). By tracing cobalt to its original source and ensuring a clean supply chain, artisanal miners' rights are protected and child labor can be eliminated.

Secondly, the Congolese people desperately need greater economic support at the local level in their villages in order to lift them out of their impoverishment and dependency on illicit mining. International companies could invest in creating agricultural development initiatives in these villages which would bring down the retail price of food such as eggs, milk and chicken which are double that of neighboring countries (Mining, 2019). Education in subsistence farming could be provided alongside these agricultural initiatives. Companies could also offer microlending for small business projects such as goat farming with incentives for growth and development in the community. In addition, the World Bank and donor countries could help invest in building the DRC's infrastructure of roads, water pumps, wells, and schools, by paying workers with guaranteed wages and paving the way for a viable alternative to working in conflict mines (Enough Project, 2009). Diversifying the DRC's economy would help to stabilize it and bring up the standard of living for local Congolese.

According to the World Bank, funding options are available for quality projects in the DRC. However, the volatile environment places potential investors at high risk (Mining, 2019). This is why there must be reform in governmental structure as well as in the oversight of the mining industry. Currently, the DRC's cobalt industry enriches networks composed of local and international businessmen, militia leaders, and politicians who benefit from resources that should form the basis for a legitimate state authority (Enough Project, 2009). By placing some of the mining economy under state control, a legitimate revenue base for local and regional authorities could be established and an authorized mineral trade made more highly visible for the international community to support (Enough Project, 2009). In 2018, former DRC President Joseph Kabila did just that by signing a new mining code into law which increased royalties on mined minerals so that more of the profit would remain in the country. Royalties on cobalt could potentially increase from 2% to 10% if deemed a "strategic substance" (Investment Policy, 2018).

Third, along with controlling more of the mining economy for the benefit of the DRC, the Congolese government needs critical assistance with wresting physical control of the mines away from armed militia groups (Enough Project, 2009). The U.N. Group of Experts has documented how armed groups on all sides of the conflict, including the Congolese military, threaten the local population with intimidation and violence and prey upon civilians involved in the trade (Enough Project, 2009). The demilitarization of these armed groups is an urgent priority requiring a strong commitment by the UN and other key international actors in the DRC mining industry such as Rwanda, Burundi, China and the United States. This may be virtually impossible because of rampant corruption and the stakes that each country has within the mining industry. Even the troops from the U.N. peacekeeping mission, MONUSCO, have been accused of doing nothing to stop the violence and massacres in the DRC's east, and protesters have demanded that the UN troops leave (Aljazeera, 2022). Most recently, however, on April 19, 2023, the U.N. Security Council met to urge the ending of attacks by armed groups and underscored the need to bolster regional peace plans while a fragile ceasefire is in effect right now in the Great Lakes region—comprised of Rwanda, Uganda, Burundi, and the DRC. The Peace, Security and Cooperation Framework for the DRC and the Region was signed in Addis Ababa, Ethiopia, ten years ago for the stabilization of the Great Lakes region (Office of the Special Envoy for the Great Lakes). On May 6th, 2023, the countries of this framework agreement met in a high-level meeting of the Regional Oversight Mechanism in Burundi to strengthen the coordination of regional processes under way to put an end to the current crisis of conflict. This multilateral strategy involving all relevant countries is absolutely necessary in order to put an end to the violence and hostilities and promote regional peace and reconciliation.

Due to decades of weak governance, ongoing corruption, historical ethnic tensions, and economic pressures, the DRC's conflict mineral problem is highly complex. It is ironic that the nation with the earth's richest natural resources is also one of the world's poorest. The Congolese people have long suffered the disastrous effects of the plundering of their country because of greed and capitalistic self-interest. They need the international community's help in this important fight against the illegal exploitation of cobalt so that their basic needs of food security and living stability could be achieved. Through implementing comprehensive strategies at all levels — in a transparent supply chain, in governmental control of mining and trade, in private sector investments into the agricultural economy, in cooperation among the countries of the Great Lakes region to end all armed conflict — it is possible for the power struggle over cobalt in the DRC to be unplugged.

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* This story of Mungu is a true account from a personal interview on February 21, 2023 with George Snyman, the co-founder and retired former CEO of Hands at Work in Africa (www.handsatwork.org), an international NGO that provides three essential services of food security, education, and basic healthcare to the most vulnerable orphans and widows in sub-Saharan Africa, including the Democratic Republic of Congo.

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