

Cobalt. critical³



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COBALT IS ONE OF THE MOST CRITICAL MINERALS OF THE PRESENT.

CRITICAL from the Industry's perspective, which is dependent on large amounts of the raw material for the technologies of the future, especially batteries.

CRITICAL from the point of view of human rights organisations and ecology groups worldwide, which do not want to tolerate daily human right violations, ecological disasters and social ills any more.

CRITICAL for the artisan miners in the DR Congo, which provide for a major part of the sought after raw material under highly risky conditions.

The value chain of Cobalt must become fair and integrate artisan mining completely. Consumers of Cobalt have to take responsibility for the protection of human rights and ecological standards along the whole supply chain. For German companies to wholly implement these standards, it needs a consequent legal framework and supportive measures for artisan miners and the local people in the mining areas.

Part I

Status Quo Cobalt worldwide

1. Magic Cobalt: treasured metal – ascending trend

The battery boom started in 2016. Before that, cobalt was only needed in limited amounts. Cobalt is frequently found associated with other precious metals like copper or nickel, so there is only a small concentration of cobalt in the ore veins. Due to limited demand, cobalt until recently was only being produced as a byproduct and rarely extracted as primary commodity. The technical progress and the developments in the energy revolution, electro mobility, Smart Cities, digitization and the Industry 4.0 since 2016 rapidly increased the need for cobalt, especially for the production of storage systems. Cobalt evolved to become an economically strategic natural resource and nowadays production of lithium-ions-batteries wouldn't be possible without it. Besides lithium, nickel, manganese and platinum the automobile industry as well as the sustainable energy sector are focused on cobalt. Governments and corporations all over the world are trying to assure long-term and low-cost supply.





In supply risk assessments and market analyses scenarios are constantly recalculated on how supply and demand of the treasured metal will evolve in the next years. **However, there is a consensus that the total demand of cobalt will more than double until 2026.** In 2017 there was a need for 110.000 t of cobalt worldwide¹, for the year 2026 the German Mineral Resources Agency (DERA)² expects a demand of up to 225.000 t. For 2050 there is an anticipated requirement of around 800.000 t³ solely for the expansion of electro mobility.

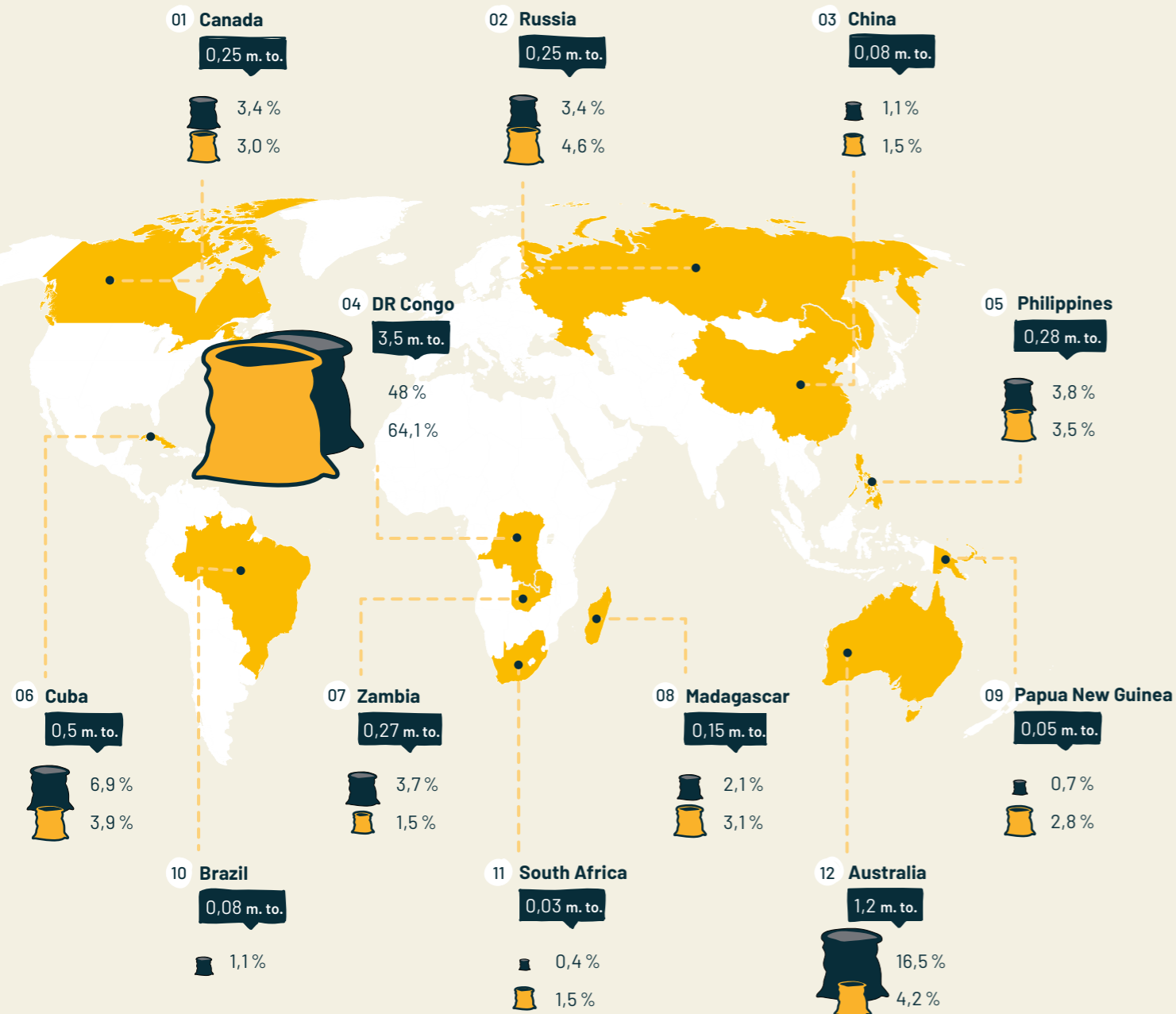
Since the tendency towards an increasing demand became apparent in 2016, the price of cobalt rose from 22.000 US\$/t in beginning of 2016 to 97.000US\$/t in 2018 because of an expected temporary supply deficit. This leads to investment announcements for the opening of new resources, as well as the fostering of research

efforts to replacing cobalt with nickel in the production of lithium-ions-batteries. Since then the price has decreased considerably.

Cobalt is mostly mined in regions with high state fragility. Nearly half of the worldwide cobalt resources are found in the Democratic Republic of the Congo, followed by Australia with 16,5 % and Cuba with almost 7%.⁴ Together with Russia those three countries provided 76,8 % of the global mine production of cobalt in 2017. The DR Congo, where 64% of the worldwide used cobalt was extracted in the same period, will, with high probability remain the biggest primary producer of cobalt. In spite of intensive substitution research and the development of new deposits in other regions, it can be assumed that the DR Congo as central supplier of the coveted product will be indispensable in the near future.

GLOBAL COBALT RESERVES AND CURRENT PRODUCTION⁵

 Deposits
 Mined quantities - global share 2017



When looking at the worldwide reserves, there is enough cobalt available to cover the increasing demand over the next decades. Following a study of the German Öko-Institut, the identified global reserves account for approximately 25 billion tons according to DERA; in the seabed there is expected to be found an additional volume of 120 billion tons.⁶

However, the sudden increase in demand puts mining corporations in the position of being able to sell large

amounts of Cobalt in the short-run. This market behavior puts more pressure on the mining areas at the expenses of environmental protection and human rights.

Therefore, more important than the solely quantitative question of available reserves is: In which dimensions do we accept human rights violations and the irretrievable destruction of ecosystems to cover the rapidly increasing demand of cobalt?

2. Boom on cobalt. Industry 4.0 doesn't work without it⁷

Cobalt is counted among the so-called critical raw materials. From the perspective of industry associations and the German Federal Institute for Geosciences and Natural Resources (BGR)⁸, cobalt is to be classified a critical raw material, for two reasons: First, it shows a concentration of supply only in a few countries and, second, it is sourced from high risks areas regarding political stability in the

mining countries, especially the DR Congo. This combination defines the element as "critical" in an economic sense. From the point of view of human rights organizations and environmental organizations the criticality especially refers to human rights violations in the mining process as well as the irreversible destruction of the eco system and thus the livelihood of many people.

EU-Conflict Minerals-Regulation

In 2017, the European Parliament decided on mandatory rules for corporations and traders that import natural resources from conflict regions. Importers of raw materials have to ensure that the minerals tin, tantalum and tungsten (including their mineral ores) as well as gold, they are importing into the EU don't finance war or human rights violations. However, the regulation does not include all imports of mineral resources: corporations using the above-mentioned raw materials in processed forms or assembled forms are excluded from the regulation. Threshold values also allow smaller quantities of raw materials to enter the EU without further scrutiny. Although cobalt is not classified as a so-called conflict resource, as defined in the 2017 EU Conflict Minerals Regulation, cobalt mining and trade is by no means conflict-free in some countries.

Cobalt is indispensable for numerous future technologies. Cobalt is an essential ingredient running the cathode (positive pole) of the Lithium-ion battery. Those batteries have also been used in smartphones for years. A battery for an electric car contains around 3000 times the amount of cobalt a smartphone battery does. To prevent supply shortfalls, numerous research projects are working on the development of alternatives to replace cobalt in electric vehicle batteries. The automotive industry aims at reducing the amount of cobalt per battery. Through the development of solid-state battery cells, fuel

cells or redox flow cells, the industry hopes for an alternative that works with less or without cobalt. According to the Belgian company Umicore, one of the leading suppliers of battery materials in Europe, that won't happen in the foreseeable future: "Cobalt is the element to balance out the instability of nickel. There is no better element to increase energy density than nickel and there is no better element to stabilize the material than cobalt. **So when talking about avoiding cobalt in the design of batteries, that won't happen in the next three decades. It just doesn't work.**"⁹

TECHNOLOGIES/PRODUCTS THAT CONTAIN COBALT¹⁰



3. Struggle for Cobalt – supply chain interdependence and its responsibility using the example of German car makers

Chinese and European companies dominate global cobalt mining. The primary raw material sourcing companies as well as automobile producers and battery cell manufacturers are taking part in the race to secure themselves the required quantities of cobalt or cobalt containing components at the best possible conditions.

Most of the mined cobalt is refined in Asian countries. Nine out of ten battery cells are currently also manufactured by Asian suppliers. German automotive and tech companies also obtain vast amounts of those battery cells.

GERMANY:

German car makers are busy securing cobalt and battery cells for their production lines. **BMW** is already a major customer of CATL, a Chinese battery cell manufacturer. The car producer ordered battery cells worth 1.5 billion Euros, which are supposed to come from the CATL factory currently being built in Erfurt starting production in 2021. For another 2.5 billion Euros BMW signed purchase contracts with CATL in China.¹¹ In September 2017, **Volkswagen** invited tenders to sign a (at least) 5-year supply contract with a fixed price to ensure long-term cobalt deliveries at good conditions. So far, no supplier has agreed, because demand is enormously high. Currently **VW, Daimler** and **BMW** are still buying battery cells in Asia to put them together to large battery packs for electric cars. **At the same time, the German government is pushing ahead with the establishment of a major European battery cell production in Germany in order to make German companies independent of the Asian market in the long run.** In response to media and NGO reports on human rights violations in cobalt mining, several major automakers responded by obtaining only cobalt from the seemingly „safe“ industrial mining. Nevertheless, the companies know that a quarter of the total amount of cobalt is transferred from the artisanal to the industrial sector via the black market.

SWITZERLAND:

The mining company **GLENCORE** represents about 35% of the total cobalt production. In March 2018, the group sold one third of its production to China's GEM. Glencore is also one of the most important suppliers to CATL. Glencore aims to increase its production from approximately 39,000 t in 2018 to 65,000 t in 2019.¹² **For many years, Cobalt's largest global producer has been heavily criticized for systematic human rights violations during resource**

extraction, unfair business practices, corruption and evasion of duties.

¹³ Allegations from the DR Congo not only refer to artisanal mining, but the industrial sector as well.¹⁴ According to Bloomberg, the US Department of Justice summoned Glencore to a hearing in early July 2018 for its involvement in money laundering and corruption in the DRC among other things.¹⁵

SOUTH KOREA:

LG Chem Ltd. is a South Korean chemical company and produced batteries with a total of 4.5 GWh in 2017. In Germany, the company supplies, inter alia, Audi, Renault and VW. LG CHEM acquires Cobalt from the Swiss mining group Glencore. In 2017 and based on a statement by a supplier of Glencore, LG Chem claimed that the cobalt used solely came from industrial mines excluding the risk of child labor and human rights abuses.¹ **LG Chem has comparatively been more involved in the organization of supply chain management structures than other companies, conducting audits and surveys of selected suppliers. However, a systematic practice of supply chain responsibility has not been installed by LG Chem either.**

CHINA:

GEM is one of the most important recycling companies in China and is one of the world's leading suppliers of reprocessed raw materials for batteries. Until recently, the group had produced most of the cobalt from recycled batteries and electrical appliances. To increase its production, GEM agreed in 2018 to purchase large quantities of cobalt from Glencore. CATL, in turn, intends to buy large quantities of cobalt from GEM over the next few years.

Central Pacific

As globally concerns rise over security of cobalt supply from available cobalt deposits, the German Federal Government along with other states put their plans to explore marine deposits into concrete terms. Since 2006 the Federal Government holds exploratory licenses issued by the International Seabed Authority. In an area of about 75,000 square kilometers, sourcing options for concentrations of manganese nodules and massive sulfides are going to be explored. In a depth of about 4,000 – 6,000 meters, around 175 million tons of manganese nodules, containing 3% of copper, nickel and cobalt in addition to their name giving element are found.¹⁷ **Activities of seabed mining will cause severe damages to the marine ecosystem and come with the risk to destroy the livelihood of many people as a consequence. Internationally, many human rights groups and environmental organizations are now appealing to their governments saying “NO! to the exploitation of the deep sea!”**

CHINA:

Contemporary Amperex Technology (CATL). With 12 GWh of produced batteries, CATL from the Southeastern Chinese province of Fujian is the world's largest producer of batteries for electric cars in 2018. With Daimler, BMW and VW as customers, further growth is self-evident. In July 2018, CATL opened up for non-Chinese investors for the first time: BMW acquired a small share of the strategically important battery manufacturer. BMW gained supply reliability and insights into business operations. In July 2018, CATL also confirmed the construction of a large battery cell plant in Erfurt. By 2022 CATL wants to have invested 240 million euros. **Although CATL has created a supply chain management system to mitigate risks in this regard, there is a lack of consistency in implementation and transparency.**¹⁸

DR CONGO:

Congo DongFang International Mining (CDM) is a daughter of Chinese giant **Huayou Cobalt**. It is one of the major cobalt suppliers for electronic companies such as Apple and Samsung as well as numerous German carmakers - in some cases via intermediaries such as cathode material manufacturers. A residential neighborhood has formed right next to Congo DongFang International Mining. When it rains, sewage from the CDM ore refinery in Lubumbashi runs into the Kasapa district next door. The residents complain about severe skin and respiratory problems. So far, they have not received any feedback on their numerous inquiries at CDM.¹⁹ **Congo DongFang also obtains cobalt from artisanal mines.**²⁰ **Huayou, the parent company, admitted in a survey conducted by Amnesty International in 2016, that the group had insufficient awareness of supply chain management and was unaware that Cobalt purchased from artisanal mines favored child labor among other.**

CONCLUSION:

Cobalt supply chains are interconnected and branched out worldwide. German electronics and automotive companies obtain cobalt from sources where human rights violations cannot be ruled out. **Despite occasional attempts to conduct audits etc., not one of these companies can make sure that there are no human rights violations along its cobalt supply chains with a 100% certainty.** Many carmakers acknowledge that their supply chains have become more transparent and understandable, but they are not yet making sufficient use of these advances to systematically analyze and eliminate risks for human rights in their supply chains.



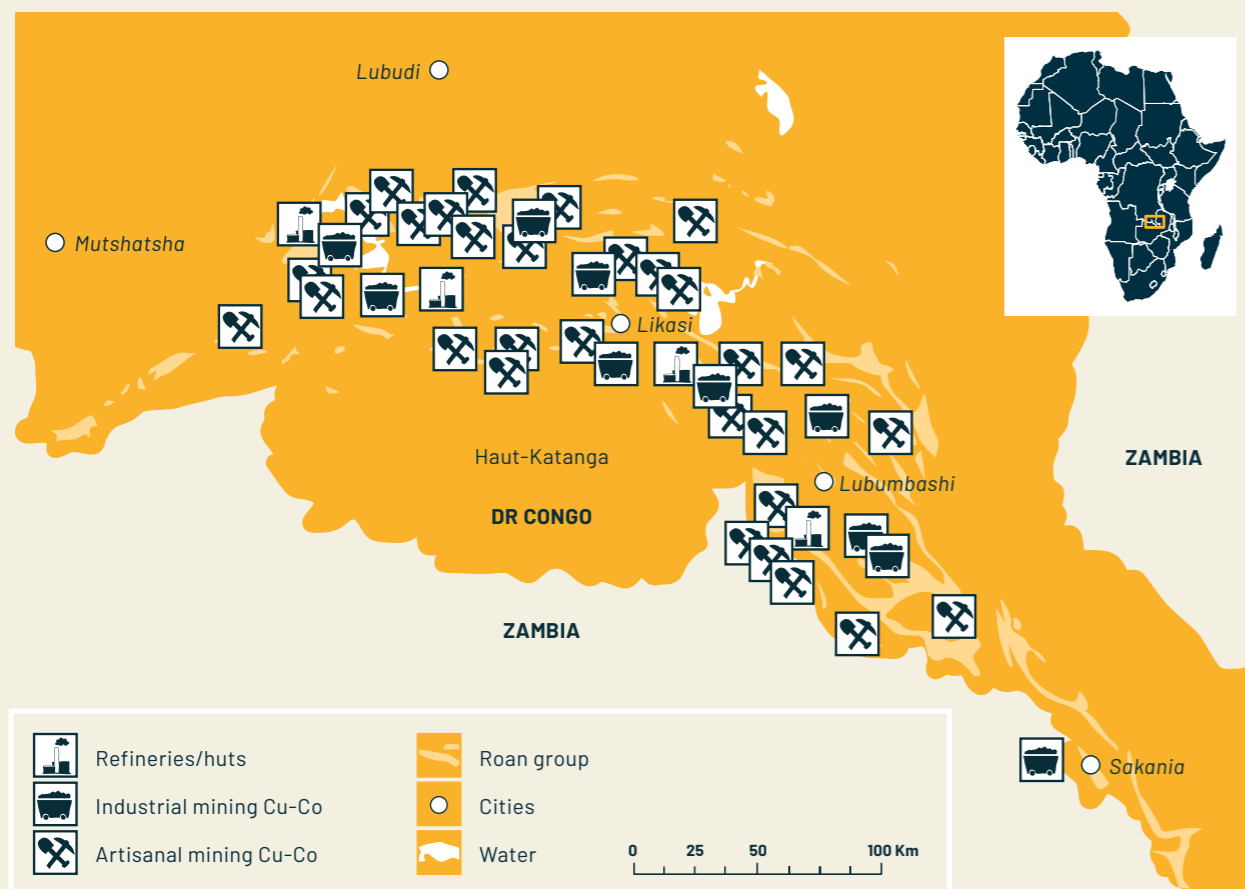
4. Focus: Cobalt from the DR Congo – critical, but indispensable

The majority of the world's cobalt deposits are located in the DR Congo. About 64% (around 76,000 tons) of the global mining output of Cobalt in 2017 originated from the DRC.²¹ Cobalt production is concentrated mainly in the former Katanga Province (the present-day provinces of Haut-Katanga and Lualaba) in the southeast of the country. Due to the fragile political situation, industry associations and governments regard the DRC as highly problematical. At the same time they are dependent on the large deposits of cobalt in the DR Congo, because other internationally developed deposits cannot meet the needs of the industry.

In the DR Congo, about 20% of the cobalt deposits are mined artisanal. The mostly informal small-scale mining sector is an important income factor for the population in the resource-rich regions of the country but at the same time it bears certain dangers. Amnesty International estimates that about 110,000 – 150,000 people engage in artisanal cobalt mining practices.²²

It is not possible to determine an exact figure due to the lack of statistical surveys and a high turnover and migration rate in the mining areas. Moreover, in contrast to industrial mining the mining and trading of raw materials from the artisanal mining often takes place without any state control and legal protection.

MAP OF CONGOLESE INDUSTRIAL AND ARTISANAL COBALT MINING ALONG THE CENTRAL AFRICAN COPPERBELT



Commodities, political fragility and conflicts in the DR Congo

The fragile situation in DR Congo is a conglomeration of the weak or fragile statehood, corruption and conflicts over the access to land and resources. Mineral resources such as Coltan, tin and gold are not the cause for the various conflicts in the resource-rich eastern regions of North and South Kivu and Maniema, but they play a critical role in fueling the conflicts. The roots of the ongoing violent conflicts are national and regional disputes about power and influence as well as the access to land and the question of identity and allegiance in the eastern provinces of the country, especially along the state borders.

The ability to mine (mineral) resources, to tax transportation and to earn profit is one source of income for armed groups and state actors in the DRC among others. Regional actors such as the neighboring countries of Rwanda and Uganda also facilitate this devastating situation by installing agents and proxies, such as specially militarized groups or middlemen, in order to gain access to the sought-after Congolese raw materials and to control trade routes.

SMALL-SCALE MINING IN THE CONGOLESE COBALT SECTOR - OPPORTUNITIES AND RISKS

Small-scale mining is also called „artisanal mining“, often ASM is used as abbreviation signifying Artisanal and Small scale Mining. ASM usually implies that the ore is dug out by hand. Working conditions in small-scale mining often violate universal human rights. Moreover, the environmental impacts are intolerable. The miners often work under precarious conditions. There is a lack of adequate protective clothing and safety for the workers.

Many miners put themselves in danger by working in self-built tunnels and expose themselves to health risks. According to the World Health Organization (WHO), cobalt dust can cause long-term health problems, especially respiratory problems.

Frequently, also children and adolescents/ youngsters are working on and around mining sites. They mainly execute tasks like sorting and purifying the minerals and also act as carriers. One of the main causes for minors working in mining activities is the rampant economic poverty.²³ Two years ago, Amnesty International and African Resources Watch proved that even children from the age of seven risk their lives and their health in cobalt mines. According to Amnesty International, children work for up to 12 hours a day for a wage of one to two dollars a day.²⁴

Congolese NGOs and church organizations cite further problems in small-scale mining: Lack of professional qualification and offers leading to environmental awareness rising among local cooperatives and miners; Abandoned mines are not being rehabilitated or pits remain unclosed; Deforestation for the drilling of mining pits; Pollution of

waters by leaching of minerals; No economic rights and equal treatment of the miners by middlemen and thus a one-sided benefit; Violence by security forces and militias; Prostitution in the camps near the mining areas.²⁵

Between October 2014 and October 2015 alone, collapsed tunnels or other incidents caused 72 deaths during cobalt mining.²⁶

In contrast, the industrial large-scale mining (LSM) is working with large heavy machinery.

Often conflicts arise between the two sectors. If large companies want to start mining in an area that was previously mined artisanal, it leads to displacement of many people and other problems such as the absence of compensation for loss of their livelihood. With the growing global demand of cobalt, the conflicts between artisanal miners and industrial mining companies increased in Haut-Katanga and Lualaba rapidly.

There are consistent conflicts about mining rights and missing space/ areas authorised for artisanal miners. Small-scale miners invade concession areas assigned to large-scale mining companies for the purpose of digging for minerals and thereby securing their survival. They often have no valid papers and are either only tolerated or driven away by the large-scale companies. „The artisanal extraction of raw materials currently takes place on privately owned concession areas. As a result, the artisanal miners are being displaced and when they are driven out, they cause problems.“²⁷

Furthermore, according to the Congolese NGO CARF, companies and security forces shift the areas for artisanal miners to less attractive regions. There, the small miners in cooperatives have no opportunity to develop a mine.²⁸

This is aggravated by the precarious security situation in and around the mines. Due to the lucrative profit margin, the mining and trading of cobalt attracts many players. In addition to the miners and large mining companies, there are also members of the secret service, the presidential guards, the national army FARDC and various militias. This leads to growing insecurity for both the small-scale miners and the local population.²⁹

Thus, according to the Congolese NGO CARF and Af-rewatch, small-scale mining holds potential, especially in the income-generating sector. It is small-scale mining that provides basic essentials for around 20 million people throughout the whole country involving direct and indirect activities in and around the mining of mineral resources. In the former Katanga province, the mining of cobalt and copper is estimated to generate income for around 10 million people. In contrast, more than 100 mining companies in the same region employ less than one million people.³⁰

In some instances, organized in cooperatives, sometimes alternatively, the small-scale miners mostly work in the informal sector. This means that they have little access to justice and cannot claim collective workers' representatives nor rights. They have few to no opportunities to invest or save money. They cannot represent their interests collectively in an institutionalized way or enter into negotiations for the distribution of profits and shares of revenues generated by the sale of their minerals.

Given the growing conflict between industrial mining companies and expanding small-scale mining in the cobalt mining areas, they have few opportunities to enter into an equal dialogue on the issue of land access and price dictates. This is set in an environment where militia extort protection funds and private taxes. Because of missing constitutional structures people do not have the tools and the security to claim their rights over mining companies or other actors.

The approach of the processing industry to reduce or prohibit small-scale mining is not accompanied with the

creation of alternative income opportunities and would harm thousands of small-scale miners and their families in the mining regions.³¹

The bypassing of small-scale mining by the processing industries is just as problematic: If Daimler AG stipulates that „only cobalt from industrial mines with corresponding sustainability standards is processed in its supply chains“, this does not lead to a constructive development of the mining sector in the DR Congo but it intensifies the existing conflicts.³²

In addition, this approach ignores the facts: Due to the enormous demand, part of the artisanal mined cobalt ends up with the middlemen, who trade the cobalt of industrial production and there it gets mixed with the latter.

A Congolese employee of the Huayou Cobalt Company, one of the largest Chinese trading companies in the Democratic Republic of the Congo, told France 24 in early 2018: „No matter what the quality or cobalt content of the rock, everything is bought up here. The black market works excellently, it is well organized.“³³

Manufacturing industries should face the reality in the mining areas and take responsibility for their investments, acting accordingly to international standards such as the OECD Guidelines on Business and Human Rights. This means establishing standards for the responsible acquisition of cobalt and integrating artisanal mining into the value chain. The claim for transparent supply chains with guaranteed rights for all participants in the supply chain must be incorporated into law.

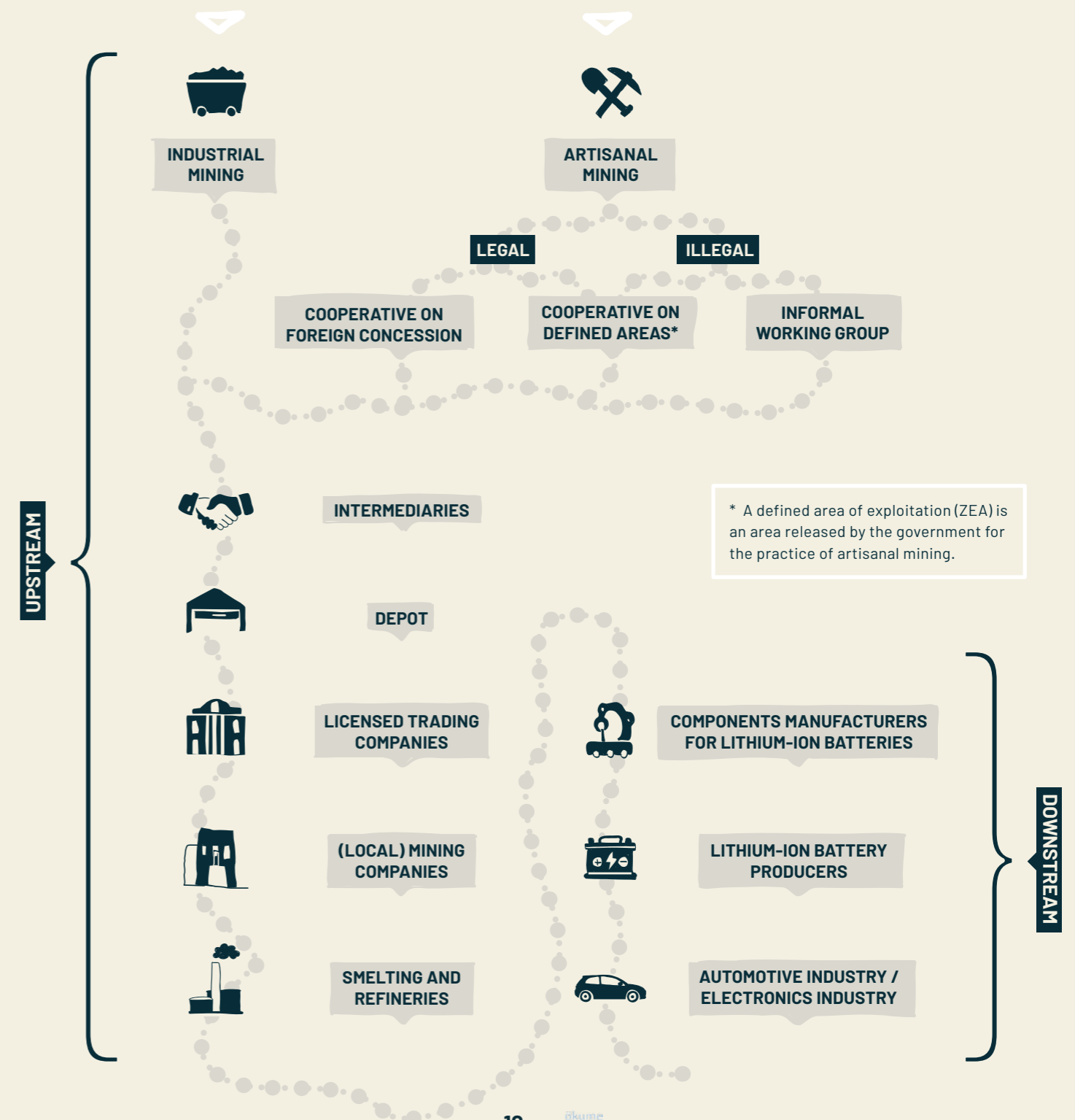
The implementation of due diligence on the ground does not work yet: „Many companies do not care about human rights due diligence at all.“³⁴

In addition, the industrial sector also poses risks to the population and the environment in the mining areas and is particularly prone to corruption and illegal tax payments. In an investigation in 2018 IndustryAll Global Union members from the Democratic Republic of the Congo raised massive allegations against working conditions in the Glencore mines Kamoto and Mutanda in the former Katanga region.³⁵

5. Players and profiteers along the cobalt supply chain

The increased price of cobalt mainly benefits companies and traders on the world's commodity markets, but not the local miners who mine the cobalt.

GRAPHIC COBALT SUPPLY CHAIN UPSTREAM/ DOWNSTREAM ORIGIN DR CONGO



Although artisanal mining harbors larger profit margins than, for example, agricultural production, it is also dependent on global commodity value increases and losses. The small miners are at the beginning of the value chain and receive the lowest financial share of the raw material profits.

According to the authors of the CEGA study³⁶, the inequality of the price differential looks like this: "The price that miners receive directly for selling the most commonly traded cobalt purity to intermediaries in the supply chain is less than half, and potentially as low as 6%, of the price-by-weight for the equivalent cobalt purity that traders farther down the supply chain obtain from their sale of the mineral to processors in the DRC."

Often the artisanal miners have to compensate for the additional costs of certification and industry initiatives³⁷. A fair distribution of the additional costs on small-scale

miners, traders and processing industry does not yet exist. Therefore, the NGO CARF demands: „In order for small-scale mining to stand to benefit, modern trading centers with clear rules would have to be created and supported as well as small-scale cooperatives and intermediate-trading structures by merchant banks of the mining sector."³⁸

According to Emmanuel Umpula of the organization Afrewatch the situation of the small-scale miners has not improved, despite the price increase of cobalt in the past months. It is the buyer or middleman who dictates the price, the artisanal miners can only adapt to the market, but not make any demands. „The Congolese state, in collaboration with its international partners, needs to build an internal, local, small market for cobalt. This market should be accompanied by a kind of a local commodities exchange. Traders and retailers should not set the purchase price for artisanal mined cobalt arbitrarily."³⁹

Commodity trading and government coffers

Various studies, such as the Panama Papers or „The Plunder Route to Panama" prove the involvement of the Congolese state in shady economic transactions, including in the mining sector. According to the non-governmental organization Global Witness, between 2013 and 2015, more than 647 million euros paid by companies to the Congolese state have dissipated. Most mining licenses in the Democratic Republic of the Congo are awarded by state-owned mining company Gécamines, whose executive is one of the closest members of the presidential family, according to Global Witness. Since Gécamines publishes no balance sheets, it is not known where the money from the licenses ultimately ends up. The Congolese lawyer Jean Claude Katende draws attention to cobalt as a strategic source of income for the Congolese government and warns that the enormous income range of the raw material is contributing to newly arising conflicts.⁴⁰ On the corruption index of Transparency International, the DR Congo ranks 161st out of 180 countries.

¹ Speech Al Barazi: Rohstoffrisikobewertung Kobalt. DERA-Industrieworkshop Kobalt 2.7.2018
² German Mineral Resources Agency: Resource center for mineral and energy resources for the German economy; Part of the Federal Institute for Geosciences and Natural Resources (BGR)
³ Agora Verkehrswende. Strategien für die nachhaltige Rohstoffversorgung der Elektromobilität. 2017
⁴ Press release DERA/BGR of 2.7.2018
⁵ DERA/BGR: Rohstoffinformation 36 (Hrsg.): Rohstoffrisikobewertung Kobalt. (Vorabversion Datenstand Februar 2018); p. 39/75
⁶ Stefan Hajek: „Bremsen Rohstoffengpässe das Elektroauto aus?" www.wiwo.de vom 15.11.2017, as consulted online on: 27.11.2018
⁷ "Industrie 4.0" stands for the comprehensive digitalization of the industrial production.
⁸ The Federal Institute for Geosciences and Natural Resources
⁹ Umicore Chief Executive Marc Grynberg, www.reuters.com, as consulted online on: 6.11.2018
¹⁰ DERA/BGR: Commodity Top News n° 53: Kobalt aus der DR Kongo – Potenziale, Risiken und Bedeutung für den Kobaltmarkt.
¹¹ www.t3n.de/news/bmw-daimler-vw-kunden-catl-baut-1094144/, as consulted online on: 28.11.2018
¹² www.reuters.com/article/us-gem-glencore-cobalt/glencore-signs-massive-cobalt-sale-deal-with-chinas-gem-idUSKCN1G03B3, as consulted online on: 7.11.2018
¹³ Misereor/Facing Finance, 2017: Fragwürdige Unternehmenstätigkeiten des Schweizer Bergbauers Glencore und die Verantwortung deutscher Banken, p. 9-10
¹⁴ cf. IndustrieAll Report 2018
¹⁵ www.bloomberg.com/news/articles/2018-10-09/is-the-reign-of-glencore-s-billionaire-copper-king-near-its-end, as consulted online on: 28.11.2018
¹⁶ cf. Amnesty International 2017: Time to recharge, p. 91
¹⁷ Marine Rohstoffe Newsletter 2016, BGR und www.bgr.de
¹⁸ cf. Amnesty International 2017: Time to recharge, p. 90
¹⁹ www.dw.com/de/kongo-der-preis-der-kobaltgier/g-43916245, as consulted online on: 28.11.2018
²⁰ In micro or artisanal mining, in contrast to industrial production, the work is done with simple non-industrial methods (hand tools).
²¹ DERA Rohstoffrisikobewertung-Kobalt, 2018, p.10
²² www.deutscherohstoffagentur.de/DE/Gemeinsames/Produkte/Downloads/Commodity_Top_News/Rohstoffwirtschaft/53_kobalt-aus-der-dr-kongo.pdf?__blob=publicationFile&v=2), p. 9, as consulted online on: 27.11.2018

²³ Center for Effective Global Action Policy Report: "Artisanal Mining, Livelihoods, and Child Labor in the Cobalt Supply Chain of the Democratic Republic of Congo", 2017, Abstract
²⁴ Amnesty International: Time to Recharge, 2017, p. 18
²⁵ Questionnaire Interview Jacques Nzumbu Mwanga, Expert for Natural resources governance, Director of Research and Natural resources-management at the Congolese NGO CARF, August 2018
²⁶ www.bbc.com/news/technology-35311456, as consulted online: 27.11.2018
²⁷ Questionnaire Interview Emmanuel Umpula, Afrewatch, May 2018
²⁸ Questionnaire Interview Jacques Nzumbu Mwanga, August 2018
²⁹ Questionnaire Interview Jean Claude Katende, Lawyer of the Congolese NGO ASADHO. May 2018
³⁰ Questionnaire Interview Jacques Nzumbu Mwanga, August 2018
³¹ Center for Effective Global Action Policy Report: "Artisanal Mining, Livelihoods, and Child Labor in the Cobalt Supply Chain of the Democratic Republic of Congo", 2017, p.9f
³² Deutsche Welle: Nahaufnahme vom 26.11.2018: Der wahre Preis der Elektroautos. www.dw.com/de/der-wahre-preis-der-elektroautos/av-46454486, Minute 26. as consulted online: 28.11.2018
³³ cf. Schurath: Kratzer im Hochglanzlack; Südklink Nr. 185, September 201
³⁴ Questionnaire Interview Jean-Claude Katende, May 2018
³⁵ IndustrieAll Global Union: Report of the Fact-Finding Mission to the Democratic Republic of Congo Testimonies of Mineworkers from Kamoto copper-cobalt (KCC) and Mutanda copper mine (MUMI), März 2018
³⁶ CEGA: Artisanal mining, livelihoods and child labor in the Cobalt supply chain of the Democratic Republic of Congo, 2017, p.8
³⁷ In the context of mining, certification is a method to establish the compliance of human rights standards and environmental requirements in the mining sector. Since the AI reports on child labor in the cobalt sector, various industrial initiatives have been established to control their supply chains. Existing certification initiatives in the DR Congo focus at criterion „conflict-free". BGR also uses the Certified Trading Chains (CTC) approach to improve conditions in the mines.
³⁸ Jacques Nzumbu Mwanga, Interview, July 2018
³⁹ Jacques Nzumbu Mwanga, position statement, November 2018
⁴⁰ Questionnaire Interview Jean Claude Katende, May 2018



Part II

Who cares? Approaches for sustainable cobalt usage

In the future, Germany will be more involved in the business of cobalt, not less and therefore it can take a trailblazer position regarding responsibility in the supply chain management. In November 2018, Federal Minister of Economy Altmaier promised one billion Euro funding for the development of battery cell production in Germany.

The closer German companies are involved in the supply chain, the less excuse will be to dispense all responsibility on the suppliers of the upstream sector.⁴¹ Political parameters have to be adjusted.

A responsible value chain means that the trade of cobalt and its worldwide generated profits benefit also the places where the primary raw material is extracted by serving the development of sovereignty.

If small-scale mining cooperatives are managed well and integrated in global value chains on equal terms, the living conditions of artisanal miners can be significantly improved.

The protection of human rights and of the environment as the basis of life for millions of people are only possible if the political will and the respective parameters are given and are taken seriously. Because of the reports of Amnesty International, SOMO, CEGA and others, companies feel compelled to form industry initiatives to achieve better control over the value chains. These include, among others, Global Battery Alliance, Responsible Sourcing Initiative, Cobalt Due Diligence, European Battery Alliance, Cobalt Pilot Scheme and Responsible Minerals Initiative (RMI).

Several of the large German automobile and electronic corporations are voluntarily involved in one or more of the above-mentioned initiatives – a positive first step in the

right direction. However, the impact on local livelihoods is still limited, more dedication for justice along the value chain on the part of politics and the industry are inevitable. At the same time, the necessary constitutional structures can only be supported but not be substituted by certification initiatives and monitoring.

In the context of the experience with the certification of minerals in the eastern regions of the DR Congo, many local civil protagonists have certain reservations concerning this approach: “The certification of artisanal cobalt increases the production of industrial cobalt mining, which is paying more taxes to the Congolese government” says Jacques Nzumbu Mwanga. However, certification holds the risk “of the marginalisation of artisanal mining as small-scale miners can’t afford the cost of the certification process. Subsequently “violence and sabotage against industrial mining” could increase aggravating “already existing social tensions”. The expert for natural resource governance also points out that “the introduction of certification schemes combined with the dependence on artisanal mined cobalt leads to the consequence of artisanal cobalt being smuggled into the supply chains and subsequently bought by large corporations nevertheless. In this circumstance, certification “opens the door for an illegal cross border trade of cobalt.”⁴²

Selective certification can lead to a growing awareness of all protagonists for the control of supply chains but still isn't a comprehensive solution for the challenges mentioned above.

Constructive steps towards more justice along the value chain of cobalt:

- * Incorporation of human rights due diligence standards into national legislation. Clarity in the narrative: human rights due diligence is not a marketing tool
- * Install effective and accessible complaint mechanisms
- * Create access to judicial and extrajudicial authorities
- * Shape a new natural resources governance, accept and integrate artisanal mining
- * Strengthening of small-scale mining cooperatives through accompanying measures within development cooperation
- * Support economic diversification
- * Promote the creation of local value chains

1. Incorporation of human rights due diligence standards into (national) legislation

In 2011 the UN-Human Rights Council adopted guiding principles for economy and human rights. These principles are very concrete and don't leave much space for interpretation: corporations have to ensure that they are neither directly nor indirectly contributing to the violation of human rights; states are supposed to actively protect human rights and create access to complaint mechanisms. Supply chains for cobalt are mostly retraceable

today. Even large automobile corporations as the main buyers of cobalt concede this. Still missing is a clear legal obligation by the federal government of Germany for the corporations to make supply chains as transparent as possible and to implement concrete measures to protect people and nature along the supply chains. Due diligence for human rights are the quintessence of the UN guiding principles regarding entrepreneurial responsibility.

DUTY OF CARE ALONG THE SUPPLY CHAIN

(on the example of the battery cell producer)

- 1. The battery cell producer develops a corporate human rights policy:** For all business decisions, for example the purchase of cathode material or the selection of suppliers, the employees have to question if their decisions are withstanding the criteria to actively and comprehensively protect human rights. If that is not the case other ways have to be identified.
- 2. The battery cell corporation continuously analyzes the impact of its own activities as well as its business connections under the aspect of human rights.** It actively includes the affected civil society of the countries that are supplying primary raw material in its analysis. A German battery cell producer understands that his responsibilities go further than his production units. Human rights violations e.g. against small scale mining communities, that have been committed by business partners along the supply chain are recognized as indirect repercussions of own corporate practices and hence consequences are assumed by the down-stream company.
- 3. If grievances are discovered along the supply chain, the battery cell producer takes effective countermeasures to remedy and rectify them.** That also applies if the corporation did not cause the damage itself but a protagonist further up-stream the supply chain. However, the chain of responsibilities doesn't end with the battery cell producer. When the battery cells containing cobalt are later on build into E-Golf, E-Tron Quatro and BMW i3, also VW, Audi and BMW have to deal with contaminated drinking water at the start of the supply chain even if they didn't drain heavy metals into the groundwater themselves. Costs for protection and compensation measures can be distributed among the down-stream users of cobalt.
- 4. Furthermore, the battery cell producer gathers feedback from affected people as well as independent observers about the usefulness of the countermeasures and if damages have actually been remedied.**
- 5. The battery cell producer implements easily accessible complaint mechanisms wherever his primary raw materials are purchased.** Those complaint mechanisms are not only accessible to artisanal miners but e.g. also for residents all around the mines.



In contrast to a mere certification strategy (i.e. classification of primary raw material sources from mines that are categorized into fair and conflict free or unfair and critical), **the approach of human rights due diligence is strongly process orientated.** If due diligence is implemented consequently, a deeper assessment of the impact of business activities is feasible. Comprehensive approaches to finding a solution can be developed together with affected people. **So far, the federal government of Germany doesn't oblige corporations to implement due diligence mechanisms along the supply chain. That has to change urgently.**

2. Clarity in the narrative: human rights due diligence is not a marketing tool

It has to be clearly communicated that human rights due diligence is not a marketing tool and can't solve all problems and challenges. Those mechanisms have to be applied as minimum standard for the mining and trading of natural resources like cobalt.

The current political debate contributes to a misunderstanding of human rights due diligence. In a debate bringing up actors, like consultants of the Global-Compact-Network,⁴³ that are motivating corporations to implement human rights due diligence standards by pointing out assumed economic advantages like "avoiding additional operational and management costs and legal expenses" or an "improved creditworthiness" in return, then this doesn't serve the necessary basic rethinking of the context between profit and responsibility. With this approach, human rights due diligence will be watered down before actually being implemented.

Moreover, the discourse about due diligence can entail the risk of seeing it as a cure for every problem. What has to be made clear is that human rights due diligence can't decrease the existing radioactivity solely. It probably also won't prevent the use of heavy metals for the extraction of raw materials as well as it won't change the existing power structures in the mining sector.

Furthermore, the implementation of due diligence won't suffice to help the Congolese artisanal miners gain sovereignty over their own livelihood.⁴⁴ **The impact of human rights due diligence in its currently discussed form has its boundaries. But it can contribute to establishing more respect between the producers and profiteers in the existing system.** The discourse about human rights due diligence has to consider both aspects. Corporate due diligence in the area of human rights is not an extra obligation but the minimum of what has to be achieved when corporations and humans encounter each other.

3. Install effective and accessible complaint mechanisms

An effective complaint mechanism is an important element for the implementation of fair structures. Complaint mechanisms according to UN guiding principles for economy and human rights would enable people affected by human rights violations or the loss of livelihood due to the mining of cobalt to report their concerns directly and particularly low-threshold.

The federal government of Germany has to oblige the companies to establish a functioning and effective

complaint mechanism making sure that the affected can report human rights violations in their local language whilst being able to develop faith in jurisdiction. Incoming complaints and their processing have to be made transparent.

At the same time, a functioning complaint mechanism could establish a broad data base reporting on social, ecological and economic effects by the business practices of German corporations and their suppliers.

4. Create access to judicial and extrajudicial authorities

Also, the introduction of serious sanctions is necessary for the effective control of supply chains. Without this juridical instrument there won't be any sufficient pressure to act. It's plausible that the flip side of the corporation's freedom on the market is the responsibility for cases of wrongful action.

According to the UN guiding principles the federal government of Germany should create access to judicial and extrajudicial authorities so that business-related human rights violations can be investigated and prosecuted ensuring that the affected receive compensations.

5. Shape a new natural resources governance

Natural resource governance is a crucial lever in the supply chain management. It implies sustainable social and ecological rules to regulate the use of mineral resources. Governance also includes the fair distribution of (public) revenues as well as regulations for the covering of the costs of the adherence to environmental and social standards.

The federal government of Germany consults with Congolese governmental and non-governmental protagonists as part of the development cooperation to further develop the cobalt governance. **Especially the formal integration of artisanal mining needs to be emphasized.**

There also have to be mandatory standards for the industry in the downstream area of the supply chain regarding the responsible purchase of cobalt and the covering

of the mining related (externalized) costs by profiteers of the supply chain. The ongoing support of democracy as part of diplomatic efforts is inevitable to give the new structures of natural resource governance a proper basis to develop further.

Furthermore, natural resource governance includes systematic eco-screenings to prevent the destruction of eco-systems around artisanal and industrial mines.

RESTRUCTURING OF THE CONGOLESE MINING SECTOR – THE NEW MINING LAW. A STEP TOWARDS AN IMPROVED NATURAL RESOURCE GOVERNANCE.

In March 2018 the Congolese government issued a revision of the mining law of 2002. Many international corporations criticized the new “Code minière” which among other increased the export tax on cobalt five times up to 10%. Special taxes up to 50% on minerals whose price rose particularly high are possible. A safety clause was annulled which ensured a ten-year protection of tax fluctuations for corporations.⁴⁵

Among others Congolese NGO's were involved in the draft of the new mining law. They welcomed the new mining law but are rather skeptical when it comes to its implementation. Increased export taxes on demanded minerals like cobalt would flow into the public purse, said lawyer Jean Claude Katende, but it depends on actual use of the money (which has to find its way back to the local level) if the population should actually profit from the new law.

The minerals experts Jacques Nzumbu Mwanga and Georges Mukuli from the DR Congo emphasize the improved conditions for artisanal miners, which are now secured by law. The new mining law provides 0,5 % of the profits generated by cobalt mining to a fund that was started to support local communes and is only to be used for financing social projects. The law obliges all corporations that are based in the mining business to fulfill their social responsibilities as well. The voluntary character of the Cooperate Social Responsibility (CSR) is abandoned. Corporations that contravene the environmental requirements and social standards can actually be convicted by Congolese courts. Despite the positive voices on behalf of the civil society to the new mining law, there is a lot of skepticism observing the realization due to the high political instability and corruption rate.

6. Strengthening of small-scale mining cooperatives through accompanying measures within development cooperation

The instrument of development cooperation is already being used by the federal government of Germany to implement political strategies regarding raw materials.

For the purpose of federal political aims like the SDGs 1, 8, 10 and 12⁴⁶ the federal government of Germany has to use this instrument more, to strengthen mining cooperatives as the most important income source for up to 250.000 artisanal miners and their families.

That includes the setup of credit cooperatives, capacity building to manage cooperatives, training in exploration and mining techniques as well as safety management and

raising awareness of artisanal miners regarding health risks during the extraction of cobalt, like the release of radioactivity. Additionally, on a diplomatic level provincial governments and other federal institutions must be convinced to assure that artisanal and industrial mining meet on eye level. That includes the strengthening of legal support to cooperatives and the clarification of legal parameters in relation to land titles, approvals and licenses. As of now the designation of zones for artisanal miners (ZEA) remain legally questionable and without any valid mining title.

7. Support economic diversification

If countries that are mining natural resources diversify their economy, they immediately reduce their dependence on natural resource exports and gain more independence from fluctuations of the world market price of natural resources. The roles along the cobalt mining chain are clearly distributed at the moment: the role of the DR Congo is confined to the supply of cobalt benefitting worldwide business activities. If the DR Congo diversifies

its economy, the country strengthens its bargaining position considering international natural resource trade. If artisanal miners are supported to establish alternative sources of income (e.g. in agriculture) then local and regional economic cycles can emerge that would boost the development of the country. People that are taking high health risks by mining cobalt due to a lack of alternative sources of income could gain more sovereignty.

8. Promote the creation of local value chains

The installation of value adding businesses within the own country contributes to the ability of states to use their mineral deposits more for the development of the country. As of yet there are only a small number of direct partnerships between companies at the end of the value chain and artisanal mining cooperatives in the cobalt sector. The trade and sale of cobalt functions through middlemen and smelting plants. However, a majority of the price

for the natural resources doesn't profit the small scale miners but is distributed among subsequent parts of the value chain. **Therefore, the establishment of partnerships between processing industries and cooperatives is necessary to achieve fair pricing and transparency.**

Companies should consider direct communication and cooperation with cooperatives to shorten the supply chains as well.

⁴¹ In the area of metallic raw materials, supply chains are subdivided into the upstream sector (from mining to smelting) and the downstream sector (from smelting to the finished product).

⁴² Jacques Nzumbu Mwanga, short analysis of the certification process in the cobalt sector, via Mail, November 2018

⁴³ The United Nations Global Compact is the biggest initiative for responsible company management worldwide.

⁴⁴ Schurath: Kratzer im Hochglanzlack. Südlink n° 185, 2018

⁴⁵ Reuters: <https://www.reuters.com/article/us-africa-mining-congo/congo-minister-declines-to-say-whether-new-mining-code-signed-into-law-idUSKBN1FROIF>, as consulted online on: 16.12.2018

⁴⁶ SDG 1: No Poverty SDG 8: Decent Work and Economic Growth; SDG 10: Reduced Inequalities; SDG 12: Responsible Production and Consumption



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