From the ore to the car

Mining conditions and supply chains in the commodity sector and the responsibility of the German automobile industry
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This summary of the study “From the ore to the car – Mining conditions and supply chains in the commodity sector and the responsibility of the car industry” does not contain any examples, diagrams or explanatory paragraphs. References to further reading have been restricted to the necessary bare minimum.
Foreword

Again and again, mining and processing of natural resources, or commodities, has involved violations of human rights and an escalating of violence and conflicts. Largely, this problem has lately received public attention as far as diamonds, coltan and other “conflict commodities” are concerned. However, the extraction of other commodities, such as iron, copper and bauxite, frequently also goes hand in hand with violations of human rights, severe environmental degradation, conflicts and the criminalisation of human rights defenders – as is attested by partner organisations of MISEREOR and “Brot für die Welt”, and as this study demonstrates.

Companies with a demand for large quantities of these commodities bear their share of responsibility for the mining and processing conditions. In Germany, branches this applies to include the car industry, which really ought to have an interest of its own in a socially and ecologically sustainable supply of these commodities.

This survey shows that measures taken so far by states, who would hold primary responsibility for regulation in our opinion, as well as the so far voluntary activities of companies in the context of Corporate Social Responsibility are not sufficient to eliminate abuse and grievances. It also demonstrates that significant improvements are possible in various areas provided that governments and companies are in favour of this. Finally, the study explains what concrete measures can and, in our opinion, ought to be taken in commodity mining to respect and defend the legitimate interests and human rights of the people living in poverty in the global South.

We would like to thank those who have contributed to this study for elucidating the complex relationships between violations of human rights and commodity extraction and processing in the production and supply chain “from the ore to the car”.

In order to achieve a truly sustainable way of life and economy, curbing our excessive hunger for commodities will be inevitable. In parallel, concrete steps to prevent negative ecological, social and human rights impacts as well as violent conflicts owing to the commodity mining and processing activities are urgently needed. For this purpose, it is necessary to close existing governance gaps. The processing industry, including the automobile branch, can and should make an effective contribution to this. The study on hand does not provide complete solutions; but in addition to comprehensive background information, it offers a number of recommendations for action and impulses for further dialogue with politics and business. MISEREOR, “Brot für Welt” and our partners in Asia, Africa and Latin America as well as the Global Policy Forum are ready to engage in this dialogue.

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Introduction

In spite of the global finance and economic crises, the world is currently experiencing a hitherto unknown boom in commodities. The worldwide demand for commodities has reached a historic climax. This particularly applies to metal commodities such as iron, bauxite and copper, too.

In order to take advantage of the present boom for their economic development, many countries of the South are increasingly opting for an exploitation of their mineral resources. New regions are developed for production, and additional mining licences are being awarded in already existing mining regions.

However, the mining often involves grave violations of human rights and environmental degradation. Again and again, there are reports from people in the regions affected of irreversible intrusions into nature, especially in the tropical rainforests, of drinking water and the air being contaminated, of expulsion from land and forced displacement, of violations of labour rights and freedom of speech and assembly. Neither do people always benefit economically from the run on commodities. So far, mining in the directly affected areas has too rarely given a sustainable impulse to development. This is why resistance to mining is growing in many countries. Often, violent conflicts already break out during the exploration phase between sections of the population and the government or corporation or between and within the affected sections of the population.

In German commodity policy, such problems tend to be a peripheral item at best. The Federal Government’s commodity strategy focuses on sufficient supplies of metal commodities for German industry. For this purpose, a bilateral agreement on commodities was signed with Mongolia in 2011, and in 2012, an agreement with Kazakhstan followed. Further partnerships are being planned. Here, talks are being held by the Federal Government with, among others, Chile, Zambia, Namibia and South Africa. The prime objective of these agreements is to facilitate access to sources of raw materials for German businesses. Other countries depending on natural resources have a similar approach. In pursuing such a policy, the Federal Government accepts that it is politically enhancing the status of authoritarian governments in entering such agreements and is willing to remain silent on human rights violations – as in the case of Kazakhstan.

It comes as no surprise that a permanent safeguarding of commodity supplies should also be at the centre of interest for German industry. The “Rohstoffallianz der deutschen Wirtschaft” (RA - raw materials alliance of German industry), founded early in 2012, also serves this purpose. And here, it is no coincidence that the automobile corporations Daimler and BMW as well as important suppliers such as Bosch and ThyssenKrupp are or will be involved in the “Rohstoffallianz der deutschen Wirtschaft”. For not only is the car industry one of the most important branches of industry in Germany, but at the same time, it is also one of the largest industrial end-consumers of metal commodities.

Automobile corporations are among the most important purchasers of these materials on the world markets. They have corresponding market power at their disposal vis-à-vis traders and producers. But this also raises the question what (co-) responsibility the car industry bears for the conditions that the commodities are mined under and the social, ecological and human rights impacts they entail.

No doubt it is first and foremost the duty of governments in the commodity-producing countries and the mining companies to see to it that universally valid human rights standards are observed and negative impacts on the local population are avoided. But the end-consuming industry bears a co-responsibility that may vary from case to case but that it cannot shirk.

Now, the key question is whether existing state instruments and business initiatives to establish corporate responsibility along the production and supply chain are sufficient and effective and are being consistently implemented by the companies in the automobile branch.

In the following, these questions are to be examined with the examples of three metals that are of key importance to vehicle construction: iron and steel, aluminium, and copper. This study intentionally focuses on these metals because, unlike the rare earths and conflict minerals, they are currently not at centre of disputes between politics, science and civil society, despite the fact that again and again, mining and processing these commodities involve human rights violations and severe environmental degradation.

The basic debate over transport and mobility concepts based on motorised individual transport is not addressed in the context of this examination. In particular, the severe problems relating to crude oil production and the emissions of harmful substances by cars are not focused on, for they are already at the centre of broad public discussions.
Human rights impacts of commodity production

Numerous case studies demonstrate that again and again, there are incidents of human rights violations in iron ore, bauxite and copper mining as well as in steel and aluminium production. These areas are essential for automobile manufacture. Incidents relate both to economic, social and cultural human rights and to the civil and political rights. The human rights violations are restricted neither to individual regions nor to particularly poor countries with fragile statehood.

Iron and steel

Steel and cast iron are the most important components of a car; these two materials account for around 65 percent of an automobile. Germany’s iron ore demand is covered exclusively by imports. In 2010, Germany imported 43.1 million tons of iron ore, chiefly from Brazil (52.6 percent), followed by Sweden and Canada. German industry covers its pig iron demand (incl. cast iron) mainly with imports from Russia (48.4 percent), South Africa and Canada. In 2010, these imports totalled 421,288 tons. The bulk of pig iron imports comes from Eastern Europe.

Copper

An average of 25 kilograms of copper is processed for a car, and 70 kilograms of copper is used in a commercial vehicle. Ten percent of German copper consumption is currently accounted for by the automobile industry. In 2010, 1.1 million tons of copper concentrate was imported. In addition, there were net imports of 635,539 tons of coarse copper. The most important exporting countries for the German copper industry in 2010 were Peru (25.2 percent), Argentina (17.8 percent), Chile (16.7 percent) and Brazil (14.3 percent). With a share of 6.7 percent, Germany is the third-largest copper processor following China and the USA.

The ecological, social and human rights problems of iron and steel production

In many countries, the considerable area consumption of iron ore mines results in land-grabbing and forced resettlement and displacement. A large amount of energy is needed to produce iron and steel. The blast furnaces used in smelting to obtain pig iron from iron ore are usually coke-fired. Coke consists of coal. In many countries of the South, coal mining causes social and ecological problems. Where it is cheaper to do so, charcoal is used as a source of energy. Charcoal is obtained largely from primeval forests or monocultures, which has frequently resulted in the degradation of habitats populated by indigenous communities. Also, there are reports of working conditions amounting to those of slavery in charcoal production. Growing monocultures leads to conflicts over land, displacement of the rural population, and environmental problems owing to the use of pesticides and high water consumption.
**water**, they can lead to grave health hazards for both humans and animals.

Ecological and human rights problems occur not only in the immediate vicinity of a mine. The masses of overburden that copper mining entails and their disposal via the river system can have a further impact on sections of the population living far away from the mine.

### Aluminium and bauxite

At 43 percent, the transport sector is the most important consumer of aluminium products among all branches of industry. In this sector, in turn, the automobile industry is the largest consumer. In 2010, German industry imported two million tons of bauxite and 921,000 tons of aluminium oxide and hydroxide. While 73.6 percent of the bauxite was from Guinea (Conakry), 14.9 percent came from Ghana.

The ecological, social and human rights problems of bauxite mining and aluminium production

Just like any other opencast mining, bauxite extraction represents a massive intrusion into the environment of the region affected. Severe ecological problems also arise in aluminium manufacture. Toxic red mud develops as a residue from production and has to be deposited leak-proof. Again and again, there have been cases of improper storage and containment of red mud, resulting in grave environmental and health problems.

A further problem in aluminium production is its immense energy consumption. This is why 55 percent of all aluminium smelters are supplied with electricity generated by hydropower. Frequently, the dam projects carried out to generate electricity also result in the violation of the right to decent living conditions owing to the resettlement and displacement of the people living in the area subject to flooding.

Finally, workers in bauxite mines and aluminium smelters often complain of poor working conditions, considerable health impairment and the violation of fundamental trade union rights.

### General observations and summary

When people criticise the impacts of ore mining and metal production, their protest is often suppressed by force. In particular, the spokespeople and leaders of protest campaigns are criminalised. Human rights defenders are intimidated or arbitrarily arrested, or they receive death threats; some people even pay with their lives for their involvement.

The militarisation of mining regions, the deployment of military and paramilitary security forces to crush protest and the use of private security forces hired by the companies themselves also represent flagrant violations of human rights or result in such violations.

Mining projects must only be carried out on the territory of indigenous peoples if the latter have given free, prior and informed consent (FPIC). However, in many cases, this right is violated by governments and mining corporations. Those affected are frequently only insufficiently involved in the decision-making processes, often at too late a stage and sometimes not at all. Again and again, negotiations are held with indigenous representatives who are not authorised to speak on behalf of the community.

In research conducted for this study in the context of mining and processing of iron, copper and aluminium, the violation of the following human rights was established:

- the right of every individual to a decent standard of living for oneself and one’s family, including sufficient food and accommodation,
- the right to clean drinking water,
- the right to optimally attainable level of physical and mental health for everyone,
- the right to fair, favourable, safe and healthy working conditions,
- the rights to freedom of speech and assembly,
- the right to protection from arbitrary arrest, and
- the right of indigenous people to free, prior and informed consent.
Scope and limits of metal commodity source traceability

The trade relations and supply chains in the automobile industry are extremely complex. Every car has thousands of components, and each of the major automobile corporations has thousands of suppliers. Identifying the origin of metal material with the aid of chemical and metallurgical analysis is only possible up to the processing stage of the coarse metal. It already becomes impossible to trace back origins at the level of alloys and pure metals. Partly, however, metal commodities (aluminium) are marked internationally for batch identification. Given the relevance of suppliers to automobile manufacture, it also makes sense to take a close look at this link in the supply chain. Here, the question is also to what extent automobile firms and suppliers can (and must) assume responsibility for the conditions under which the commodities they purchase are obtained.

Knowledge of automobile companies regarding the origin of the components used in the various preliminary stages of production and the commodities used in their production is sketchy. This entails a number of economic risks, sometimes even a loss of production owing to supply bottlenecks. The automobile manufacturers are therefore becoming increasingly interested in being comprehensively informed about their supply chains. So the automobile corporations are interested in the origin of their commodities provided that this is in their entrepreneurial interest. Currently, however, this occurs primarily in the context of assessing procurement risks and not with a view to complying with human rights, social and ecological minimum standards.

The automobile manufacturers regard their scope to control the direct suppliers as limited and traceability of the commodities used back to a mine as unachievable. The reason they point to is the complexity of the supply relations. Nevertheless, the German automobile manufacturers should not be prematurely relieved of their responsibility. For one thing, important supply channels for primary commodities are relatively straightforward since most supply contracts (also for semi-finished products and in one-off production) are directly agreed with the producers. Also, cross-company coordination and communication processes are steadily gaining ground.

Against this background, arguing that proof of origin would generally entail unacceptable costs does not make sense. For when commodities are imported to Germany, proof of their origin goes without saying as a rule. So in principle, both the automobile industry and the major suppliers could integrate proof of the location of the ore deposits for the primary commodities used into documentation of material flow, which has long been administrated electronically. Nowadays, no excessive technological effort is required to establish and apply a tailor-made information system on the origin of commodities.

Today, the automobile industry is already required to provide government authorities with comprehensive information on the material composition of the products used in its vehicles. The companies in the branch justify passing on hardly any information to the public on the origin of the primary commodities they use with the need to keep their procurement modalities secret.

The companies identify access to and supply of commodities as an essential production (and risk) factor that is correspondingly considered in company organisation and at various management levels. The automobile corporations could above all influence commodity procurement and compliance with specific standards (incl. human rights standards) in the mining and processing of commodities in the context of product development and procurement.

In practice, German companies have a wide range of options for leverage to also require that suppliers comply with environmental standards and respect human rights. For example, specific requirements and obligations to provide information regarding the (desired) origin of the primary raw commodities could be considered in the invitation of tenders, supply contracts, corresponding accompanying documents and assessments of suppliers.

Arguing that the use of secondary commodities complicates traceability may be factually correct but is misleading. For basically, it is not necessary to establish the origin of secondary commodities. Their use has no (direct) influence on the ecological compatibility and social impacts of ongoing mining activities.
The purchasers and processors of commodities, who also include the automobile corporations, bear a co-responsibility for the impacts and side-effects of commodity mining. And the German automobile corporations (as well as major suppliers such as Bosch and ThyssenKrupp) are increasingly addressing sustainability aspects in the supply chain. They are recognising more and more that responsibility for the social, ecological and human rights impacts of their business activities cannot be limited to their own companies and their direct business environment.

However, it appears that a systematic monitoring of observance of social, human rights and ecological minimum standards by the suppliers is obviously not taking place. Neither is it included as an item in the specific purchasing conditions of the automobile corporations. Company representatives have explained that they regard their scope to influence is limited to their direct suppliers and that tracing the commodities back to the mine is not achievable.

So far, neither the intergovernmental instruments nor the voluntary corporate initiatives have been sufficient to establish transparency along the entire production chain “from the ore to the car” and ensure that the metals used by the automobile corporations and their suppliers have not been mined and processed in violation of ecological, social or human rights minimum standards.

Recommendations for governments

Committing corporations to transparency along the production and supply chain would be a first important step towards identifying the compromising or violation of human rights and being able to take counter-measures. To this end, government efforts regarding the commodity sector at international level have above all focused on the disclosure of payment flows over the last few years. Based on the Publish What You Pay (PWYP) campaign and the activities of the Extractive Industries Transparency Initiative (EITI), legislative proposals have been made in the USA and the EU aimed at country-related obligations to report publicly for commodity companies. In the USA, the Dodd-Frank Wall Street Reform and Consumer Protection Act already go beyond the mere goal of transparency. It requires all businesses listed in the USA to ensure that the metals tin, tantalum, tungsten and gold that they are using neither directly nor indirectly contribute to the financing of armed groups in the DR Congo and the adjacent territories.

The extension of the Dodd-Frank Act, 1502 regulations to further metals, factual findings (such as the violation of human rights) and regions ought to be assessed. In advance, however, the existing framework for implementation ought to be thoroughly examined. In accordance with the Do No Harm principle, unintentional negative impacts on the people in the mining areas have to be avoided.

The California Transparency in Supply Chains Act 2010, which entered force on the 1st January 2012, has a similar objective. This law obliges traders and manufacturers conducting business in California and having a worldwide turnover in excess of 100 million US dollars to publicly report on what they are doing to counter slavery and human trafficking in their supply chains. For this purpose, they have to disclose information on whether and to what extent they are active in the following five areas: verification, auditing, certification, internal accountability and training.

It ought to be assessed whether the California Transparency in Supply Chains Act demonstrably contributes to combating slavery and human trafficking and can thus also serve as a model for generalised regulations.
The European REACH (Registration, Evaluation and Authorisation of Chemicals) regulation provides an entirely different approach in raising transparency along the supply chain. It entered force on the 1st June 2007, and also affects the automobile industry. In accordance with REACH, manufacturers, importers and downstream applicants have to register their chemicals and are responsible for their safe use. REACH also contains provisions on the passing on of information along the supply chain down to the final sale in order to ensure their safe use. Under REACH, all enterprises are required to compile an inventory of all materials and mixtures of materials used in an enterprise.

An inventory drawn up in the context of REACH could also provide an instrument to systematically establish the origin of the processed commodities. With the International Material Data System (IMDS), the automobile industry has created an information system that could possibly serve as a basis for this.

The companies have to provide proof of the substance that they wish to introduce on the EU market is not harmful to human health and the environment. In other words, the company has to give evidence of its action creating no harm before an authorisation is granted. In certain cases that would have to be precisely defined, this reversal of the burden of proof could be pursued in a similar manner when human rights are at risk.

In addition, it is crucial that victims have effective access to means of legal redress in order to be able to claim compensation and indemnity. One important precondition for this is that Germany and the EU suspend the legal principle of separating responsibilities according to which parent companies are not held liable for offences committed by their subsidiaries.

Legal liability also ought to be introduced for European companies in cases of human rights violations and damage to the environment in which a European company has not sufficiently observed due diligence.

Recommendations for companies

Independently of legal regulations, companies already have a wide range of options to raise transparency regarding the origin of the commodities used in their supply chain and to require that suppliers comply with environmental and human rights standards and monitor their conduct in this respect. For example, the UN Guiding Principles on Business and Human Rights contain numerous recommendations on how companies ought to assume responsibility to respect human rights. They imply that it is the responsibility of companies to

1. publicly commit themselves to observance of the International Human Rights Code;
2. systematically identify risks threatening human rights owing to their own activities or those associated with them among other companies;
3. conduct impact assessments regarding human rights in the case of risks arising;
4. integrate the results into business decisions and take preventive countermeasures;
5. regularly check the effectiveness of these countermeasures;
6. be accountable to the public regarding these measures and, in the event of harm arising, enable appropriate indemnification.

In principle, the Due Diligence Guidance of the OECD, which initially relates very specifically to corporate responsibility in the supply chain of conflict minerals from the DR Congo and the adjacent territories, also offers a general guide for businesses to observe due diligence regarding the supply chain. The guide comprises the following five stages: establishing management that is capable of asserting itself, identifying risks, developing and implementing a strategy, independent auditing and regular reporting to the public.

The automobile companies ought to systematically demand compliance with minimum standards in their guidelines for suppliers and procurement conditions. They ought to extend these standards specifically to the area of commodity procurement. In addition to the technical and qualitative requirements, they ought to systematically consider such minimum standards in choosing suppliers along the supply chain.

The crucial needle’s eye in the production chain of metal commodities is the smelting process. This is what the Conflict Free Smelter Program of the Electronic Indust-
Citizenship Coalition (EICC) sets out from. EICC has developed guidelines to enable a certification of smelting companies and parting works as “conflict-free”. So far, twelve smelting companies of the tantalum product chain, including the German firm H.C. Starck GmbH, and six gold-processing firms have been listed as “conflict-free”.

It ought to be assessed whether a certification system such as the Conflict Free Smelter Program can also be used by other branches, like the automobile industry. In addition, it ought to be examined whether and under what conditions such a system of certification is also transferrable to other commodities, such as bauxite, iron and copper, and other regions.

Already today, the automobile industry is required to provide extensive information on the material composition of products processed in its cars. For this purpose, automobile corporations have joined forces to establish a comprehensive data bank system, the International Materials Data System IMDS.

The Compliance Data Exchange (CDX) system developed by Hewlett-Packard pursues a similar objective. With this system, data on material relating to all levels of the supply chain can be gathered, updated and analysed. The CDX system enables companies to comply with legal provisions such as REACH and the Dodd-Frank Act.

Automobile companies and suppliers ought to assess to what extent they can also make use of information systems such as IMDS and CDX to trace back the metals they are processing and establish specific proofs of origin for them. Additionally, it ought to be examined whether and in what form qualitative information on observance of social, ecological and human rights minimum standards can be included in such data systems.

An uninterrupted, end-to-end traceability of the metals processed along the supply chain would be an initial important precondition for improved observance on the part of companies of due diligence regarding human rights. One crucial aspect here is that the origin of commodities and all measures put in place by the company to ensure human rights and environmental standards are observed and made comprehensible for the public.

Both the BMW and the Daimler automobile corporations and major suppliers such as Bosch and ThyssenKrupp will soon also have the opportunity to directly influence the mining conditions for metal commodities. As participants in the “Rohstoffallianz” (RA), they are directly involved in a strategically operating exploration company. One can expect them to then also be aware of the origin of commodities that they procure via the “Rohstoffallianz”.

The companies involved in the “Rohstoffallianz” have the opportunity and the duty to see to it that optimum environmental, social and human rights standards are observed in the Allianz projects. The German Federal Government ought to make its support of RA projects, for example in the shape of Hermes securities or untied credits for financing purposes, conditional on the demonstrable observance of these standards.

Automobile companies ought to systematically integrate the observance of social, ecological and human rights standards along the entire supply chain into their reporting on sustainability. The results of the working group on supply chain disclosure of the Global Reporting Initiative should be considered in this context.
Recommendations for civil society organisations

In the case of the automobile industry, civil society organisations can inform the public (and if necessary also the companies themselves) about the ecological, social and human rights impacts of vehicle manufacture. However, for this purpose, they themselves require a minimum of information that is not always at their disposal.

One important role of civil society organisations is to support and provide advice to affected groups of the population during their campaigns against environmental degradation and human rights violations in the context of mining and processing commodities.

Such activities often result in the staff of civil society organisations themselves becoming victims of reprisals taken against them.

The governments of the countries producing commodities have to guarantee unrestricted protection and freedom of speech and assembly for civil society activists. The German Federal Government is called on to make its cooperation with the countries exporting commodities, for example in the context of commodity partnerships, conditional on the observance of human rights.

However, the roles of civil society organisations are not confined to the disclosure of grievances and abuse and providing support for those affected. Creating awareness and sensitising the population before “emergencies” occur is just as important. One aspect of central importance in this context is to inform indigenous communities of their right to free, prior and informed consent (FPIC) in the case of an investment project so that they are integrated into all decisions affecting them and can thus realise their right of self-determination. Creating awareness among the population of the possible impacts of commodity projects is generally of importance to safeguard their human rights and prevent potential conflicts with investors.
Endnotes

1 Cf. e.g. the critical appraisal by civil society organisations of the Federal Government’s commodity strategy at www.globalpolicy.org/images/pdfs/GPFEurope/Anforderungen_an_eine_zukunftsfhige_Rohstoffstrategie.pdf.


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