German Environment Agency

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International Governance for Environmentally Sound Supply of Raw Materials

Policy options and recommendations

1 Background

The extraction of raw materials, but also their processing, treatment and transport, can have profound impacts on the environment. As most raw materials are being exported, these environmental impacts occur at places different from where the commodities are utilised. International approaches are needed to reduce the environmental impacts of raw material extraction.

The research and development project "International Governance for an Environmentally Sound Supply of Raw Materials", funded by the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, took stock of existing approaches and developed policy options and recommendations for the German Federal Government to strengthen international governance for an environmentally sound supply of raw materials.

In the stocktake, the project team assessed international treaties and customary law and non-binding international standards, as well as European and national legal acts with extraterritorial effect. It focused on the coverage of raw material extraction and the identification of governance approaches. The results were presented to the Federal Environment Agency in an interim report in November 2017.

Building on the stocktake, the project team developed policy options and recommendations for the German Federal Government to strengthen international governance for an environmentally sound supply of raw materials. These policy options and recommendations cover legally binding instruments, non-binding standards as well as international cooperation. Particular attention was given to European and national legislation with extraterritorial effects, including the potential of due diligence obligations regarding mineral extraction, the option to link such legal acts with non-binding standards, and options to improve implementation and enforcement.

The policy options and recommendations were presented to the Advisory Council on Environmental Issues in Raw Material Policy in September 2018 and discussed with experts and stakeholders during an Expert Workshop in November 2018. This paper reflects the draft final report that will be finalised in spring 2019.

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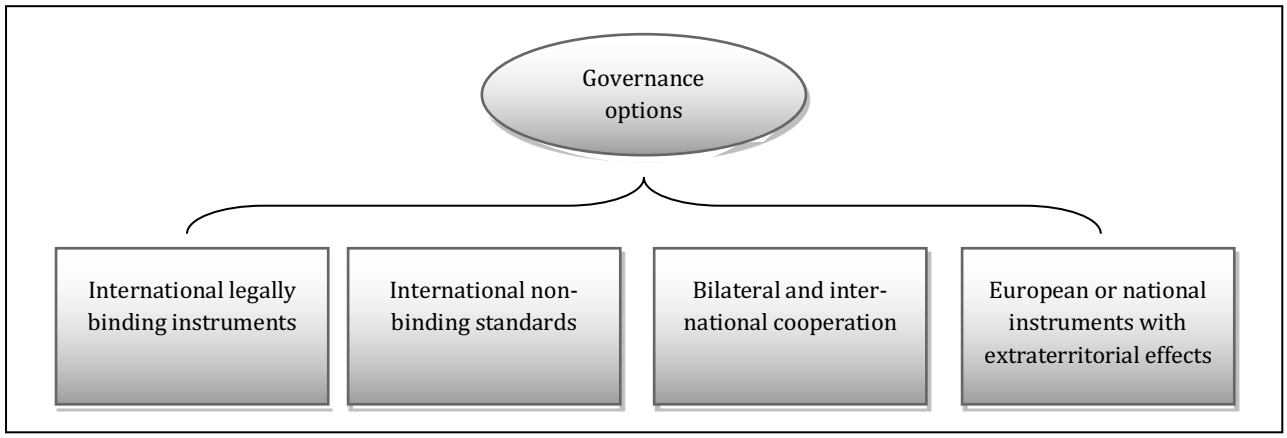
2 Policy options and recommendations

This chapter sets out a range of policy options and recommendations that the German Federal Government could pursue to strengthen the international governance of mineral extraction. They address international legally binding instruments, non-binding global standards as well as international and bilateral cooperation. Particular attention was given to European and national legislation with "extraterritorial effects", i.e. obligations on actors further down the supply chain who then exercise their leverage on the demand side to improve environmental and social standards of mining activities abroad. This includes the potential of due diligence obligations to mineral extraction, the option to link such legal acts with non-binding standards, and options to improve implementation and enforcement.



In selecting and drafting these policy options and recommendations, the project considered criteria such as the relevance of the respective instrument, its feasibility, the political will to adopt such an instrument, the timeline for its adoption as well as its impact for environmentally sound mineral extraction.

2.1 International legally binding instruments

2.1.1 Currently small prospects for a new stand-alone international mining treaty

Pursuing a new stand-alone treaty on mineral extraction could fill a gap in addressing sector-specific risks and impact. However, at this stage, such a treaty does not seem politically viable. In case the German government wants to pursue a new stand-alone international mining treaty, it would need to create – or wait for – the right moment to put it on international political agenda.

Description: International environmental treaties do not require states to implement measures to address the specific environmental and socials risks and impacts of mineral extraction.. A new stand-alone international mining treaty could address this shortcoming. It could contain requirements such as:

- **Permit:** Requirements to introduce a permit procedure for mineral extraction that covers social and environmental aspects, to apply the best available technologies for mineral extraction – e.g. for waste water discharge, and to implement a domestic environmental impact assessment procedure as part of the permit procedure.
- **Enforcement:** Requirement to introduce national mechanisms that allow affected local communities or environmental organisations to enforce environmental and social standards – either via a complaint mechanism or access to justice.

- **Standards:** Various organisations have developed social and environmental standards for mineral extraction. The international mining treaty could either build on those standards or reference them.

While a stand-alone international mining treaty could be a legal cornerstone of international governance of mineral extraction, implementation by state parties and their local authorities will be challenging, as will be regulation of small-scale mining.[1] Also, the political opportunity for such an international treaty is currently small. Mineral extraction does not necessarily have transboundary impacts and developing countries currently focus on its benefits for economic growth. This is shown by the low commitment to the ILO Convention on the Safety and Health in Mines that so far has been ratified by 32 countries only.

The political effort that would be required at this stage to create support for and start negotiations on a treaty appears out of proportion to the potential gain. The following options could be pursued as alternatives to a stand-alone international mining treaty:

- The German government could explore whether to include include the option of a treaty on mineral extraction in the current negotiations towards a "**Global Pact for the Environment**". The negotiations are a UN General Assembly initiative with a view to make recommendations to the General Assembly in June 2019 on options for addressing gaps in international environmental law. [2] It is not clear at this stage after the first round whether the recommendations could include specific issues such as mineral extraction and specific legal forms such as a treaty. But the initiative is an opportunity to address and include issues that are currently not adequately supported by legal norms..
- The German government could assess options to support dynamics in the UN Human Rights council regarding resolution 26/9 of 2014 which decided *"to establish an open-ended intergovernmental working group on transnational corporations and other business enterprises with respect to human rights, whose mandate shall be to elaborate an international legally binding instrument to regulate, in international human rights law, the activities of transnational corporations and other business enterprises."* There is a strong conceptual and legal-practical link of human rights and environmentally detrimental behaviour of enterprises, prominently in the mining sector. The establishment of human rights obligations of transnational corporations could therefore strengthen accounts of "rights-based" environmental protection.[3]

Leverage on: A treaty would address states (and the European Union). Subject to specific content, a treaty would be overarching and cross-cutting.

2.1.2 Strengthen environmental impact assessment

Environmental impact assessment is a tool to identify and assess the impacts of projects, such as mining projects, on the environment. It provides the basis for an informed permit decision and can guide the competent authority in its decision-making process. Based on the environmental impact assessment, the competent authority may refuse the permit or condition it to the fulfilment of certain requirements. Hence, an international obligation on states to subject mining projects to an environmental impact assessment is an important tool to ensure environmentally sound mineral extraction.

[1] Garner (2004): The Case for an International Mining Law, available at https://commdev.org/userfiles/files/1429_file_Pub_The_20Case_20for_20an_20International_20Mining_20Law.pdf (21.06.2018).
[2] UN GA resolution 72/A/L.52 of 7 May 2018.
[3] See further below, 2.4.

2.1.2.1 Support expansion of the Espoo-Convention beyond the UNECE area

The German government could support efforts of the UNECE Secretariat to expand the geographical scope of the Espoo Convention beyond the UNECE area.

Description: Having been ratified by over forty countries, the Espoo Convention is the leading instrument in the field of transboundary environmental impact assessment (EIA). However, its geographical scope is formally limited to the UNECE area. In 2001, the first Amendment to the Espoo Convention opened the convention for accession by all member states to the United Nations, which would further increase its political weight. For this amendment to enter into force, however, thirteen ratifications are still missing. The German government could support efforts of the UNECE Secretariat to secure the required number of ratifications, e.g. by raising the importance of the Convention in adequate political settings. This could be achieved in mid-term with medium political efforts. Once the first Amendment enters into force and becomes operational, the German government could support the accession of UN member states to the first Amendment as well as the implementation of the Espoo Convention in these countries.

The advantage of such an extension would be that the Espoo Convention contains a well-established set of rules that could help to identify transboundary impacts of mining internationally. In particular, while other international treaties, e.g. the CBD, also require an EIA for certain activities or to prevent certain impacts, the Espoo Convention is the only international instrument that details the procedure. The disadvantage of the proposal is that the Espoo Convention does not apply to environmental impacts within the boundaries of the extraction state, i.e. it does not address EIA for domestic activities without potential transboundary impacts. In contrast, the CBD does so, but EIA procedures must only be introduced "as far as possible and appropriate", which allows states to escape any form of EIA; since the CBD is a framework convention, any attempt for stricter provisions on EIA would certainly meet strong political resistance and can thus not be recommended.

Leverage on: The expanded Espoo Convention would potentially address all UN Member States and regional economic integration organizations.

2.1.2.2 Expand the duty to conduct an environmental impact assessment to projects with solely national impacts

According to the findings of the ICJ, the duty to conduct a transboundary environmental impact assessment for projects with likely significant environmental impacts constitutes a customary duty in the transboundary context. The German government could seek to expand the scope of this duty to mining projects with significant impacts on the environment within the territory of the home country.

Description: The duty to conduct an EIA is recognised by international customary law for any kind of activity likely to have a significant adverse impact on the environment, including activities related to the extraction or other activities concerning abiotic resources. However, its scope of application is unclear. The relevant ICJ judgements seem to limit the customary duty to conduct an EIA to a transboundary context. However, it is not yet settled in case law whether the duty also applies to a purely domestic context or to areas beyond national jurisdiction. According to an advisory opinion of the Seabed Disputes Chamber of the International Tribunal of the Sea (ITLOS), the ICJ´s reasoning may also apply to activities with an impact on the environment in areas beyond national jurisdiction like the deep seabed. Although there is no precedent yet for a purely domestic context, the German government could seek to expand the scope of this duty to mining projects with significant impacts on the environment within the territory of the home country. This could be done by continuous statements in relevant fora that Germany is of the opinion that the customary EIA duty also applies to domestic matters. Such a position could especially refer to Principle 17 of the Rio Declaration that

describes EIA as national instrument, and to Art. 14 CBD which requires introducing EIA in a domestic context "as far as possible and appropriate".[4]

Such a task would require high, continuous and systematic efforts for a long time. The advantage of a customary EIA duty in the domestic context would consist in ensuring that authorities take the environmental impacts of projects into consideration, thus providing for informed decision making. However, it would be challenging to define what activities would require an environmental impact assessment. The disadvantage of the proposal is that not only the scope but also the content of the customary EIA duty is unclear. While the ICJ left it to the states to determine the specific content of the impact assessment required, it specified some details, most notably including that the obligation involves continuous monitoring of the activity's effect on the environment. In this respect, the Espoo Convention as the only international instrument that details the procedure may shape the content of that obligation, e.g. through providing best practice. Likewise, the list of relevant activities in Appendix I of that convention may be used as indicator for the activities likely to have significant adverse impact on the environment. These are arguments for supporting the expansion of that convention beyond UNECE members even though it only applies to cases with transboundary impact.

Leverage on: The expanded duty to conduct an EIA for projects with solely national impacts would address states.

2.1.3 Push at European level for environmental standards in Free Trade Agreements

Mid-term: Germany could promote the integration of environmental and social standards in the chapters on trade and sustainability in future free trade agreements and work via the Council to ensure the negotiating directives given to the European Commission have a clear mandate to that end. One opportunity to put the topic on the agenda is the Council presidency from July to December 2020.

Description: New generation free trade agreements include chapters on trade and sustainable development. Examples are the free trade agreement with Colombia and Peru[5], the association agreement with Central America[6] and the free trade agreement with South Korea[7]. The content of such chapters depends on the respective country and its trade relationship with the European Union. Usually, the parties to the free trade agreement reaffirm their commitment to implement multilateral environmental agreements and agree to effectively enforce their environmental laws to avoid effects of weak or selective enforcement on trade. The chapter on trade and sustainable development in the association agreement with Central America also contains provisions on trade in forest products and fish products. Implementation of the chapter on trade and sustainable development is usually overseen by a committee or board composed of government representatives that meet on a regular basis. Issues arising between the parties concerning implementation of the standards set by the chapter on trade and sustainability can be solved via consultation or dispute settlement.

Environmental and social standards for mineral extraction as well as support mechanisms linking their implementation in the country of origin to financial or technical assistance and capacity building can be integrated in chapters on trade and sustainable development of free trade agreements. In comparison with a stand-alone international treaty on mining, the integration of environmental and social standards in free trade agreements has several advantages:

[4] See Dupuy and Viñuales (2015) at 70; Birnie et al (2009) at 167.
[5] Trade Agreement between the European Union and its Member States, of the one part, and Colombia and Peru, of the other part, OJ L 354 of 21 December 2012.
[6] Agreement establishing an Association between the European Union and its Member States, on the one hand, and Central America on the other, OJ L 346 of 15 December 2012.
[7] Free trade Agreement between the European Union and its Members States, of the one part, and the Republic of Korea, of the other part, OJ L 126 of 14 May 2011.

- Access to minerals can be linked to standards that reflect the situation of the country of origin and its trade relationship with the European Union.
- The advantages of a free trade area with the European Union can create an incentive for the country of origin to agree on ambitious standards.
- Integrating environmental and social standards into free trade agreements is an approach that the European Union and also other countries – for example the United States and Canada – are already taking.
- Implementation of the chapter on trade and sustainable development is overviewed by a committee or board that meets on a regular basis and can identify challenges and agree on support measures.

However, using free trade agreements as a vehicle for enforcing environmental and social standards for mineral extraction in countries of origin faces several challenges:

- The geographical scope is limited as this approach would, at least initially, only apply to new free trade agreements. Also, the European Union is only pursuing free trade areas with a limited number of countries.
- So far, the dialogues in the committee and board have not proven to be an effective tool to facilitate implementation of the standards enshrined in the chapters on trade and sustainable development.
- Under EU law, Germany cannot conclude Free Trade Agreements with third countries, as this falls within the competence of the European Union.

According to Article 3 (1) (e) TFEU, the exclusive competence to conclude free trade agreements rests with the European Union – and also covers trade and sustainable development.[8] Still, there are various opportunities for Germany to push for the integration of environmental and social standards for mineral extraction in such EU free trade agreements and strengthening the enforcement mechanisms of such free trade agreements:

- According to Article 207 (3) and Article 218 TFEU, the European Commission can only enter into the negotiation of free trade agreements upon a mandate given by the Council and has to follow associated the negotiating directives. Germany could ensure that such directives cover the integration of environmental and social standards for mineral extraction. Also, free trade agreements can only be signed by the EU upon decision by the Council – giving the Council the right to approve the final text and to assess whether the negotiating directives have been implemented. For each free trade agreement to be negotiated, Germany can use its vote in the Council to discuss environmental and social standards for mineral extraction. Germany could also use its Council presidency from July to October 2020 to put this topic on the agenda.
- The European Commission has published its strategy "Trade for all – Towards a more responsible trade and investment policy"[9] in 2015. Accordingly, it plans to secure access to raw materials by proposing a raw material chapter in each free trade agreement, and to promote sustainable development by increasing the priority given to sustainable management and conservation of natural resources in free trade agreements. The strategy is up for consideration by Member States in the Council and by the European Parliament. Germany could initiate a Council conclusion or resolution that reflects the necessity to integrate environmental and social standards for mineral extraction in free trade agreements.The European Commission has published a non-paper on

[8] CJEU Opinion 2/15 of 16 May 2017, EU-Singapore Free Trade Agreement, paras 139 et seq.
[9] European Commission, Trade for All – Towards a more responsible trade and investment policy, Communication, COM(2015) 497 of 14.10.2015, available at https://ec.europa.eu/transparency/regdoc/rep/1/2015/EN/1-2015-497-EN-F1-1.PDF (22.06.2018).

"Trade and Sustainable Development (TSD) chapters in EU Free Trade Agreements (FTAs)"[10] in 2017 that puts two options for better enforcement for discussion: (1) a more assertive partnership on trade and sustainable development and (2) a model with sanctions for non-compliance with standards. Germany could engage in the discussion to ensure future free trade agreements have effective enforcement mechanisms.

Leverage on: Environmental and social standards in free trade agreements would address countries of origin that enter into a free trade agreement with the EU in the future.

2.1.4 Integrate aspects of mineral extraction in the implementation and further development of existing international treaties

Neither the UN Convention to Combat Desertification nor the UNECE Convention on the Protection and Use of Transboundary Watercourses take a sector-specific approach. However, considering the obligations for parties included as well as the environmental and social impacts covered, both conventions provide for opportunities to integrate aspects of mineral extraction in the implementation and further development.

2.1.4.1 UN Convention to Combat Desertification (UNCCD)

Mid-term: Germany could initiate the development of guidelines for sustainable mining in drylands and provide financial resources to affected country parties for activities in drylands that seek to implement environmental and social standards for mining.

Description: Key obligation under the UN Convention to Combat Desertification (UNCCD) is the preparation and implementation of national action programmes by affected developing country parties. The implementation analysis has discovered that different developing countries have included mineral extraction in their national action programmes – either as a driver for desertification or as an opportunity for alternative livelihoods in drylands. However, a clear vision for mining in drylands that respects environmental and social standards is missing under the Convention.

Germany could bring mineral extraction in drylands on the agenda of the UNCCD by initiating the development of guidelines for affected country parties. Accompanying this, Germany could mobilise resources for activities in affected country parties implementing such guidelines.

- Article 31 UNCCD determines the procedures for the adoption or amendment of annexes to the Convention. Although the parties have not taken the opportunity up to now, they can adopt technical implementation annexes. Germany could initiate the development of a technical annex on mineral extraction in drylands that guides affected developing country parties in the identification of appropriate actions that can be integrated in the national action programmes.
- Article 22 UNCCD gives the Conference of the Parties (COP) the mandate to take the decisions necessary to promote the effective implementation of the Convention. Germany could initiate the development of a COP decision that guides affected developing country parties in the identification of appropriate actions that can be integrated in the national action programmes.
- Article 20 UNCCD requires developed country parties to mobilise resources. Germany could mobilise financial resources and set up programmes in affected developing country parties to integrate activities related to mineral extraction in drylands in their national action programmes and to implement such activities.

[10] European Commission, Trade and Sustainable Development (TSD) chapters in EU Free Trade Agreements (FTAs), Non-paper of the Commission services of 11.07.2017, available at http://trade.ec.europa.eu/doclib/docs/2017/july/tradoc_155686.pdf (22.06.2018).

Guidelines for mineral extraction in drylands can help affected developing country parties that have identified mineral extraction as a driver for desertification or land degradation and wish to take action. However, there are several constraints:

- Up to now, the COP has restrained from adopting sector-specific guidelines under the UNCCD. Considering other problems countries are facing in regard to their drylands, mineral extraction may not be a priority on the agenda.
- After the adoption of the UN Sustainable Development Goals the UNCCD claimed leadership to implement Target 15.3 on Land Degradation Neutrality. The related activities require all available capacity and make the success of additional initiatives unlikely.
- As the implementation analysis has shown, national action programmes have not been an effective instrument to initiate change. There is hardly any proof that actions identified by affected developing country parties have been implemented.

Despite these constraints, initiating a discussion about standards for mineral extraction in drylands would raise awareness in affected country parties that need to take action and developed country parties that could provide financial resources.

Leverage on: Guidelines for sustainable mining under the UNCCD would address affected developing countries that exploit mineral in drylands.

2.1.4.2 UNECE Convention on the Protection and Use of Transboundary Watercourses

Short-term: Germany could initiate the development of guidelines for waste-water discharge from mineral extraction, set up projects to implement the obligations of the UNECE Water Convention for the mining sector, and lobby for the accession to the UNECE Water Convention in countries outside of the UNECE region.

Description: Article 3 of the UNECE Water Convention establishes obligations for the prevention, control and reduction of transboundary impacts associated with human activities – and therefore also mineral extraction. These obligations are rather specific: Parties have to take measures, inter alia,

- to prevent, control and reduce the emission of pollutants at source;
- to provide for prior licensing of waste-water discharges from point sources; and
- to set limits for waste-water discharges in permits based on the best available technology.

Therefore, the discharge of waste-water from mineral extraction may require a permit that sets limits based on best available technologies. However, the scope of this obligation is rather limited: First, the waste-water needs to be discharged into a transboundary watercourse – defined as surface or ground waters which mark, cross or are located on boundaries between two or more states. And second, the waste-water discharge needs to have a transboundary impact – defined as a significant adverse effect on the environment. Another limitation is the – at least for now – limited geographical scope of the Convention. Since its global opening to the UNECE to all UN Member States, only Chad has opted for an accession.

Still, the obligation may be of relevance for mineral extraction and therefore be a starting point for regulating the impacts of mineral extraction for one environmental compartment, i.e. water. To use the entry points for a regulation of waste-water discharges from mineral extraction in a transboundary context, Germany could pursue the following:

- A project with a focus on tailings management facilities supported by Switzerland has started 2017 in Kazakhstan.[11] Germany could financially support projects to strengthen the safety of mineral extraction within the context of the UNECE Water Convention.
- Experts from UNECE Member States have developed document to guide implementation of the UNECE Water Convention in 2015.[12] While this document is quite comprehensive, it only contains few examples on mineral extraction and hardly any information on prior licensing of waste-water discharges. A specific guidance on the latter issue dates from 1996.[13] Germany could initiate the development of a guidance document prior licensing for mineral extraction.
- Since its global opening, only Chad has decided to accede to the UNECE Water Convention. Germany could use diplomatic means to recommend countries, especially countries with extraction sites close to borders, to accede to the Convention.

However, considering the limitations of the UNECE Water Convention described above and the reluctance of especially developing countries to accede to an international treaty that was designed for the circumstances in the UNECE region, the success of such activities may be limited.

Leverage on: Guidelines and projects for waste-water discharge of mineral activities would assist parties to the Convention in the application of the different obligations to the extraction of mineral resources.

2.1.5 Engage in ongoing activities under UNCLOS

The German government is actively involved in the process of developing Draft Exploitation Regulations for the exploitation of mineral resources in the deep sea-bed. Therefore, we do not include any recommendation concerning the exploitation of mineral resources in the deep sea-bed under UNCLOS.

Activities in the deep sea-bed have to be conducted in accordance with the Mining Code that is continuously developed by the International Seabed Authority. The Mining Code already contains regulations for the exploration of different metals that have more elaborated environmental requirements than Part XI of the UNCLOS and the Implementing Agreement. Recent Draft Regulations for Exploitation show that higher environmental standards are required for the actual exploitation of resources in the Area. The German government is actively involved in the process of developing these draft regulations, has criticised that the current draft regulations are not sufficiently detailed and has provided corresponding suggestions (see analysis to UNCLOS and Implementing Agreement above). Therefore, there is no need for any recommendations to the government concerning the exploitation of mineral resources in the deep sea-bed under UNCLOS and the Implementing Agreement.

2.1.6 Promote ratification of ILO Conventions

The German government could promote the ratification of the ILO Convention on the Safety and Health in Mines.

Description: The ILO Convention on the Safety and Health in Mines aims to prevent any fatalities, injuries or ill health affecting workers or members of the public arising from mining operation. To achieve these objectives, it requires parties to establishes obligations for competent authorities,

[11] http://www.unece.org/environmental-policy/conventions/industrial-accidents/areas-of-work/assistance-programme/envteiaapimplementation/pilotproject.html (21.06.2018).
[12] UNECE (2015): Guide to Implementing the Water Convention, available at https://www.unece.org/fileadmin/DAM/env/water/publications/WAT_Guide_to_implementing_Convention/ECE_MP.WAT_39_Guide_to_implementing_water_convention_small_size_ENG.pdf (21.06.2018).
[13] UNECE (1996), available at http://www.unece.org/fileadmin//DAM//env/water/documents/licensingwwguidelines.pdf (21.06.2018).

employers and workers in their national laws. While there are no similar obligations for damage to the environment arising from mining operation, positive effects on the environment can be presumed. Despite its potential, only 32 countries have joined the convention so far. The German government could promote the ratification of the ILO Convention on the Safety and Health in Mines via different pathways:

- An obligation to join the ILO Convention and to implement it could be integrated in future free trade agreements with third countries.
- The German government could raise the importance of the ILO Convention in adequate political settings.

Leverage on: All ILO members that join the Convention on the Safety and Health in Mines will need to implement its obligations and will thereby establish structures that can also benefit environmental protection from mining operations.

2.2 Non-binding international standards

2.2.1 New world-wide non-binding mining standard

For political reasons, it is recommended that Germany or the European Union initiate an international process involving China and developing and emerging countries to develop a new world-wide non-binding mining standard.

Short-term: Strengthening diplomatic relations with China and developing/emerging countries in the field of raw materials policy and responsible mining.

Mid / long-term: A world-wide non-binding mining standard can serve as a reference document, for example for trade agreements, cooperation agreements and CSR activities along the value chain.

Description: Considerations on an international legally binding treaty were already discussed in Section 2.1.1 with the conclusion that it will require substantial political efforts to start negotiations on such a treaty and the political will in this regard appears limited at this stage.

However, for political reasons, the international development of a non-binding global standard for responsible mining is a very interesting approach. There are currently a large number of initiatives and a large number of standards or guidelines addressing the topic from different perspectives. Put simplified, there are a large number of "western" standards, most of which were initiated by stakeholders from industrialized countries, and a growing number of Chinese standards. The "western" and "eastern" standards still stand side by side, and the developing countries in which mining takes place were not or only to a lesser extent involved in the development of these standards.

A forward-looking international dialogue on responsible mining can build bridges by jointly developing an international non-binding standard. Even without a legally binding effect, such a process would have a high political value and the resulting standard could serve as a reference document, for example for government activities such as trade agreements and cooperation agreements, and for companies' CSR activities along the value chain. The design of such a standard could include different levels. For example, both low level and more ambitious best practice approaches could be formulated.

In addition to the political value of such a process, a global non-binding standard is also expected to make a practical contribution to better local performance, as mining companies, public authorities and downstream companies have a clear reference and benchmark. This indirectly also supports German

companies which are active in international mining, mainly as suppliers, and have a strong interest in uniform high standards and their implementation.

The roles in such a process are to be discussed. For example, Germany or EU could invite to such a dialogue and provide the infrastructure. German or European support for a global institution such as UNEP to steer the process is also conceivable. The Intergovernmental Forum (IGF) would be a key stakeholder for developing countries; other key players would be the World Bank including the finance institution working along the Equator principles, various stakeholders of responsible mining initiatives, mining associations (ICMM, TSM, etc.) and stock exchanges. On the Chinese side, relevant stakeholders are government institutions as well as the China Chamber of Commerce of Metals, Minerals & Chemicals Importers & Exporters (CCCMC) and different institutions from the finance sector (e.g. Asian Infrastructure Investment Bank and China Banking Regulatory Commission (CBRC)).

Leverage on: A joint development of a global mining standard could involve multiple stakeholders (governments, companies, initiatives) across the globe and contribute to international raw material diplomacy and transparent benchmarking. This is assumed to be only effective when backed with sufficient political momentum, also from other world regions. If this is not the case, such an initiative might as well further contribute to a "mushrooming" of standards in the mining sector.

2.2.2 Integrate environmental reporting into EITI

Short-term: The German environmental ministry should start a discussion process on whether environmental reporting duties can be explicitly integrated into the Extractive Industries Transparency Initiative (EITI) - and if yes, how they can be integrated.

Description: The Extractive Industries Transparency Initiative (EITI)[14] founded in 2003 has become a global standard for the open and accountable management of oil, gas and mining industries resources. It is the only international multi-stakeholder initiative involving a large number of non-governmental organizations, companies and governments. So far, fifty-two resource-rich countries from around the world and resource-poor countries (like Germany, the United Kingdom and the Netherlands) have implemented or started to implement the standard.[15] They dedicated themselves on a voluntary basis to the transparency of the resource revenues in their countries from the extraction of raw materials with the aim to fight corruption and to support good governance. Implementing countries are required to disclose information along the extractive industry value chain, from the point of extraction, following revenues through the government, to how they ultimately benefit the public. To this end, each EITI country provides an EITI-report. The report includes information on the licensing and contracting processes, fiscal and legal arrangements, revenue payments, locations of allocated revenues, and economic contributions in the country. An important role for the implementation of EITI in a country plays the national multi-stakeholder group (MSG), with contributions from companies, state organizations and civil society organizations (CSOs).[16] The MSG oversees the implementation of the EITI in its country and is a motor to turn the global minimum standard into a nationally owned process.[17]

[14] See EITI-website: https://eiti.org/.
[15] See: https://eiti.org/countries.
[16] Schüler et. al. (2016), Voluntary initiatives in the mining sector and their principles and criteria on environmental sustainability, STRADE policy brief 07/2016, p. 8.
[17] Moberg/Ponsford (2016): The role of the extractive industries transparency initiative in delivering sustainable development in the extractive sector, Law in transition Journal 2016, p. 78.

EITI-reports that have been produced to date have greatly improved the quality of public information on revenues, expenditures and activities in the participating countries and world-wide.[18] While international reporting standards and transparency in the mining sector also play an important role in improving environmental and social performance in countries,[19] information on the environmental impacts of mining operations in resource-rich countries is generally lacking. For EITI this is not surprising, as the standard does not explicitly require reporting on information about environmental policy and management. However, requirement 1.4 of EITI encourages MSGs to explore innovative approaches to extend EITI implementation and to increase the comprehensiveness of EITI. Against this background some MSGs have decided to cover aspects of environmental policy, management and compliance in their reporting. Colombia, Germany, the Kyrgyz Republic, Niger, the Philippines and the Seychelles have stated work plans related to environmental issues.[20] Additionally, some civil society organizations in Peru have been pushing to broaden the EITI agenda to include beneficial ownership disclosure and environmental information. Some extractive companies opposed to that.[21]

Hence it is recommended to the German government not only to continuously fund EITI, but to initiate a discussion process on EITI-level if and how environmental reporting for the sourcing and processing of raw mineral materials should be explicitly integrated into EITI and even become a minimum reporting duty.

There are several reasons why countries implement EITI, for example to fight corruption, attract foreign direct investment or build trust between citizens.[22] These reasons can be fostered by implementing environmental reporting in EITI, as transparency on environmental performance of countries contributes to the general objectives of EITI.[23] The pros and cons for making environmental reporting an obligation under EITI are manifold and should be carefully scrutinized:

- Tansparency on environmental performance of mineral extraction in EITI countries can help reduce business risks for mining companies. As mining business is a long-term investment in general, an enabling investment climate and healthy environmental conditions are favourable to reduce business risks. Therefore it can be assumed that integrating environmental reporting in EITI will improve the environmental situation in the same way EITI has contributed to increasing financial and fiscal transparency[24] in the minerals and mining sectors of developing and emerging resource-rich countries.
- Increased transparency on environmental performance of the mining sector in EITI countries can help governments to implement environmental legislation in the country, especially on the sub-national level. Such reporting signals to the world that these countries are comfortable being monitored by their citizens as well as outsiders.
- Environmental reporting strengthens the role of CSO in resource rich countries to deal with breaches of environmental regulations and to make them public. Germany initiating such a

[18] For example for state-owned companies (SOCs), Bauer (2018): Governance challenges and the role of international reporting standards in improving performance, commissioned by EITI, p. 47.
[19] See the high costs of the tailings dam failure of the state-owned Ok Tedi Mining Ltd. (OTML) in Papua New Guinea, in: Bauer (2018): Governance challenges and the role of international reporting standards in improving performance, commissioned by EITI, p. 25.
[20] See examples in EITI (2017): Coverage of environmental information in EITI reporting – a review of how some EITI countries are covering environmental information in EITI reporting, http://extractives-baraza.com/assets/content/PDF/Publications:%20CSO%20Engagement/eiti_brief_environment%20(1).pdf
[21] Natural Resource Governance Institute (2017): Resource Governance Index – Peru – mining. Carstens/Lozana/Eslava (2018): EU cooperation strategy with resource-rich developing and emerging countries, STRADE, p. 16.
[22] Moberg/Ponsford (2016): The role of the extractive industries transparency initiative in delivering sustainable development in the extractive sector. Law in transition Journal 2016, p. 80.
[23] EITI (2017).
[24] Schüler/Carstens/Farooki (2018): Towards new paths of raw material cooperation - renewing EU partnerships, STRADE final report.

process in EITI could encourage further countries to set an example and to become market players for environmental performance in the mining sector in the international arena.

However, integrating environmental reporting into EITI also entails risks: Especially in countries where the EITI faces capacity constraints there is the risk that this additional reporting obligation weakens the work on the existing EITI requirements.[25] Moreover, environmental reporting should not duplicate existing national systems for monitoring environmental aspects.

Leverage on: Integrating environmental reporting into EITI would expand existing efforts of participating countries to provide for transparency in extractive industries.

2.2.3 ISO Norm for sustainable products containing mineral raw materials

Mid-term to long-term: At ISO level, the German environmental ministry should initiate a standardization process for products containing sustainable mineral raw materials. The aim is to promote information and transparency through consistent and widely accepted principles for environmental requirements in the mining and processing of mineral resources in this area.

Description: The OECD DD and the EU conflict minerals regulation have launched many companies' efforts to develop responsible supply chains that focus on human rights. So far, there is no equivalent for environmental requirements, also a later DD guidance with the focus on environmental requirements on the part of the OECD is not announced. On the one hand, the challenges in the implementation in the previous subject areas are still large and partly unresolved. On the other hand, the environmental problem is even more complex than the issue of conflict minerals and serious human rights violations, so that there are no simple criteria for what is "environmentally friendly".

In view of the globalized supply chains, the topic should be addressed on an international level. This gap could be narrowly closed with an ISO (International Organization for Standardization) standardisation process for responsible supply chains. A clear advantage of an international standardisation process, being a private standardisation process of industry, is that those addressed by the standard steer the process. Moreover, policy-makers and civil society organisations can give input to the process.

Conceivable are various standardisation deliverables that could be targeted, like International Standards, Technical Specifications or International Workshop Agreements:

- An International Standard (ISO standard) provides rules, guidelines or characteristics for activities or for their results, aimed at achieving the optimum degree of order in a given context. Apart from product standards, test methods and codes of practice, there are guideline standards and management systems standards, too, e.g. environmental management (ISO 14000), life cycle assessment (ISO 14040) or social responsibility (ISO 26000).
- Technical Specifications (ISO/TS) address work still under technical development: A TS is published for immediate use, but it also provides a means to obtain feedback. The aim is that it will eventually be transformed and republished as an International Standard.
- An International Workshop Agreement (IWA) is a document developed outside the normal ISO committee system to enable market players to negotiate in an open environment. International Workshop Agreements are typically administratively supported by a member body. The published agreement includes an indication of the participating organizations involved in its development. In contrast to a Standard or TS, which have an unlimited lifespan, an International Workshop Agreement has a maximum lifespan of six years, after which it can be either transformed into another ISO deliverable or is automatically withdrawn.

[25] EITI (2017).

As stated above, the development of environmental requirements for the mining and processing of mineral resources is very complex and still at an early stage. After all, responsible procurement with regard to environmentally compatible mining is hardly possible, since there are hardly any certified products and no globally accepted standards. The recommendations at the ISO level must therefore be geared towards long-term development; initially starting with simple principles. Later, with increasing availability of certifications and standards, these can be included and possibly recommended. One step in this direction is currently being done by developing ISO/PC 308 on "Chain of Custody". While this process does not aim at developing criteria for sound raw material production itself, it aims at developing criteria, definitions and consistent approaches for product and material related chain of custody. A draft version of the standard will most likely be published in the second half of 2019. Once finalized, the standard can be used to certify product and raw material related sustainability claims (that are based on other standards/certifications) along supply chains. As the standard will be open in terms of product and material scope, it will be possible to use it to verify that certain raw materials in products comply with upstream sustainability claims (e.g. environmental criteria in mining and processing). As the ISO/PC 308 will only addressed chain of custody, it will only be applicable in combination with other standards or criteria on sound raw material production. For developing detailed criteria on sound raw material production, it does at the moment not seem sensible to develop one or more specific ISO Standards. Rather the deliverable is intended primarily to assist downstream companies in their efforts towards a responsible supply chain and, above all, to recommend observing principles and principles for the environmentally friendly procurement of products with mineral raw materials. The content of the format as well as the practical experience can then also provide impetus for a rule setting in sustainable public procurement. Therefore an International Workshop Agreement, for example, appears to be a much more advisable format. The IWA process is pragmatic, tied to tight times, the results publicized, and the reputation of the ISO-format good. Before initiating an IWA for green procurement of products containing mineral raw materials, experience should be gained with a recent IWA "Guidance Principles for the Sustainable Management of Secondary Metals - ISO IWA 19 Working Draft". Participation and input from civil society groups would be an important pre-condition for a wide acceptance of related approaches.

Leverage on: The joint development of global principles and guidelines for green procurement of products containing mineral raw materials would address multi-stakeholders (governments, companies, civil society organisations) across the globe and contribute to international rules for (public) procurement.

2.3 Strengthen bilateral and international cooperation

2.3.1 Use instruments for foreign trade and investment promotion

The German government could rethink the objectives of the existing raw material partnerships when revising its raw materials strategy. A stronger focus could be placed on the concept of responsible mining practice as a strength of the German suppliers of mining-related technologies and services. The unique expertise that German small and medium-sized companies (SMEs) have built in the area of sustainable mining practices, from low-impact exploration to waste management and remediation, should be used to position them much stronger in resource-rich developed as well as in emerging and developing countries.

Description: Germany's raw materials policy has already triggered the establishment of several instruments to facilitate raw material supply security for the German industry and to promote German investment abroad.

One of the instruments to foster cooperation with emerging countries rich in raw materials are the raw material partnerships (*"Rohstoffpartnerschaften"*). The raw material partnerships, currently in place with Kazakhstan, Mongolia and Peru, were launched with a focus on trade facilitation, mainly to support German commodity security. This ambitious goal has only been achieved to a very limited extent because of the non-binding nature of the bilateral initiatives and the original focus on German investment into new projects for raw material extraction. This has proven to be a much more complex undertaking due to a lack of companies with the available budget, profile and ambition to invest in primary resource extraction.

Another instrument developed as part of the 2010 Raw Materials Strategy (*"Rohstoffstrategie"*[26]) currently under review are the Competence Centres for Mining and Mineral Resources (*"Kompetenzzentren für Bergbau und Rohstoffe"*). Their focus is on supporting resource security but also on promoting and supporting the suppliers of German machines, technologies, and services in the mining sector. Currently there are competence centres in 6 countries (Australia, Brazil, Canada, Chile, South(ern) Africa and Peru). These are part of the national chambers of foreign trade and form a network with each other.

Instead of focusing on commodity security, it seems appropriate to rethink the objectives of the existing raw material partnerships in order to revive them. Their mandate should be aligned more closely with the potential of the German raw materials industry, i.e. the suppliers of mining technologies and services. This is particularly relevant as the suppliers must become increasingly internationalized based on the ongoing structural changes in the German mining sector – especially with the phasing out of coal mining.

While resistance against mining projects is increasing worldwide and companies see themselves forced to invest in their social licenses to operate, there is a potential for the German suppliers of mining technologies and services. The German government is in the process of updating its 2010 Raw Materials Strategy, a draft should be available by summer 2019.[27] It could use this opportunity to emphasize the concept of responsible mining practice as a German peculiarity, particularly with regard to environmental aspects. In concrete terms, topics such as environmental technologies, renewable energies, energy efficiency or water management could be placed at the centre of Germany's instruments for enhancing foreign trade and investment promotion in the mining sector. In addition, the subject of mine closure – from mining waste management to recultivation – is increasingly gaining international importance within the debate about legacy mines and thus holds great potential for the experienced German suppliers of technology and services.

The lack of know-how and training opportunities in non-industrialized mining countries also offers opportunities for German companies and training institutions. The promotion of knowledge exchange and the qualification of employees in the private and public sector are important fields of action for strengthening responsible mining practice directly in the mining countries with the help of German expertise. The support to Mongolia in the training and qualification of professionals and SMEs in the mining sector is a positive example for such an integrated cooperation approach.

With its broader understanding of raw materials policy, the German Environment Agency should actively contribute to the necessary expansion of the mandate of the Competence Centres for Mining and Mineral Resources and the redesign of the raw material partnerships.

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[26] Bundesministerium für Wirtschaft und Technologie (2010), Rohstoffstrategie der Bundesregierung, http://www.rohstoffwissen.org/fileadmin/downloads/160720.rohstoffstrategie-der-bundesregierung.pdf.
[27] Deutscher Bundestag, Drucksache 19/4946, Antwort der Bundesregierung vom 28.11.2018.

Leverage on: Aligning the raw material partnerships and the Competence Centres for Mining and Mineral Resources with the concept of responsible mining practice will impact the situation with concrete mining sites in resource rich countries as well as the role of Germany´s raw materials sector. Moreover, the knowledge exchange and the qualification of employees in the private and public sector in resource rich countries will be improved.

2.3.2 Support innovative supply chain initiatives

The German government could further support voluntary supply chain initiatives for responsible mining. This can be done by assisting SMEs to find their way through the broad spectrum of supply chain standards and by funding innovative public-private partnerships for connecting players along the supply chain or shortening it. .

Description: German mining companies are only of minor importance on a global scale. Therefore, Germany has very limited possibilities to directly influence the mining conditions in the countries of origin. However, German industrial companies and consumers are important processors and buyers of mineral raw materials. They are increasingly exercising their influence via ecological and social standards for primary products and suppliers - also due to changing legal requirements (e.g. the EU conflict minerals regulation) and greater consumer awareness.

There is already a range of supply chain standards for mineral raw materials. These standards and certifications cover different commodities and stages along the supply chain, focus on different producers (LSM vs. ASM), key concerns, and often do not recognise each other. As an example, many of the mineral supply chain standards covering the ASM sector focus on conflict-related aspects and do not even cover environmental topics. It is therefore difficult for companies and consumers to find their way through the broad spectrum of standards. Consequently, there is a need for advice especially for SMEs that want to make their supply chain more "environmentally friendly" within the scope of their limited possibilities.

Due to the large number of existing supply chain standards, it is questionable whether Germany should promote the development of further standards. Instead, public funding for supply chain standards should be coordinated at least at EU level and dependent on the consideration of lessons learned, e.g. that the initial scenario is recorded adequately in order to allow for impact evaluations or, in the case of certifications, that the cost burden for certification and auditing is not only with the producers in order to avoid creating additional high barriers to legal market entry for the ASM sector.

Instead of directly promoting supply chain standards, the public sector can also promote innovative initiatives for the responsible extraction of individual raw materials or products through co-financing or public-private partnerships (PPPs), e.g. for connecting players along the supply chain or shortening it. In particular, raw materials relevant for the German industry that pose a particular risk to the environment and are produced in small-scale mining appear to be worthy of support, e.g. manganese or graphite.

DeveloPPP is already an instrument of the Federal Ministry for Economic Cooperation and Development (BMZ) by which pilot projects for raising supply chain standards in developing countries are subsidized. Although DeveloPPP is cross-sectoral, private sector projects to improve the environmental situation in the production of mineral raw materials in developing countries are eligible for co-financing. A new instrument that focuses solely on improving responsible mining is the European Partnership for Responsible Minerals (EPRM). EPRM aims to improve the working and living conditions of miners in conflict-affected and high-risk areas (CAHRAs) involved in the mining of

3TG minerals. It does this by means of co-financing projects involving at least one partner directly involved in the mineral supply chain. So far, EPRM has a primary focus on social and economic aspects and no explicit mandate to improve the environmental situation in mining. Germany is a member of EPRM since 2018 and participates in its financing. Germany should continue to play an active role in this regard and advocate the inclusion of environmental aspects more prominently in EPRM's further development.

Leverage on: Targeted support of the German government would benefit private companies that stand up for global responsible mining.

2.3.3 Strengthen development cooperation in the mining sector

The German government could expand its support for emerging and developing countries with their national reforms to improve resource governance. There are different approaches for aligning environmental aspects in the raw materials sector with other priorities of German development cooperation, such as :

- Advocating for the environmental peer reviews to cover mineral extraction.

- Supporting the implementation process of the Minamata Convention.

- Giving the German Environment Agency a more prominent role in discussions about development cooperation on raw materials.

Description: In addition to legal regulations and voluntary instruments, international cooperation can make an active contribution to raising environmental standards directly on site. If the measures are adapted to the local and national context, technical cooperation can build long-term capacity to set and adequately control the framework for responsible mining.

Credible information and close involvement of the partners should be the basis of any cooperation action. Participatory instruments for analyzing the influence of mining on environmental protection and nature conservation such as the Environmental Peer Review procedure by OECD/UNECE are therefore welcomed. Germany should advocate that these reviews explicitly address resource extraction in mining countries.

Environmental pollution from mining particularly occurs where mining is uncontrolled. Since mining takes often place in remote areas and its supervision has to be decentralized, measures to strengthen local governance are of great importance. These include capacity and competence building in the fields of environmental impact assessment, licencing procedures, monitoring and sanctions for non-compliance. Support for civil society, parliamentary oversight and policy dialogues are also important instruments for building good governance structures.

A sector that by definition often evades state supervision is artisanal and small-scale mining (ASM). ASM is of high relevance for both social and environmental issues: On the one hand, it sustains the livelihoods of an estimated 150 million people worldwide. On the other hand, ASM leads to habitat and ecosystem degradation, deforestation, soil loss and pollution of water and air. Based on its relevance and its widespread informality, there is a great need for support for the sector - optimally embedded in integrated rural development programmes. The Minamata Convention on mercury has a special focus on small-scale gold mining gold - one of the main drivers of environmental damage caused by mercury. The Convention has been ratified by many developing countries with relevant gold mining sectors and entered into force in 2017. It thus creates a historic momentum for the long-term formalisation of small gold mining. Germany should actively support the further progress of the Convention and its implementation.

Germany's development cooperation has been active in the field of responsible mining for many years – notably through cooperation projects implemented by BGR and GIZ. It is recommended to continue the bilateral programmes with proper financial resources and to regularly examine whether new challenges in the raw materials sector or new legal regulations which should be accompanied by cooperation instruments require new foci and/or an increased budget. On the one hand, the BMU can examine whether environmental and climate initiatives such as IKI could be more open to projects for responsible mining with a direct relevance to environmental protection and biodiversity. On the other hand, the relevance of raw materials policy goes beyond the boundaries of environmental policy. Because mining is a relevant economic sector in many developing countries for promoting employment and generating public revenues it has the opportunity and potential to positively contribute to all 17 SDGs.[28] Projects for environmentally sound supply of raw materials therefore offer an opportunity to actively shape existing conflicts of use and to harness the potential of mining in line with environmental and development policy objectives.

UBA can contribute to align environmental aspects in the raw materials sector with other priorities of German development cooperation. There are concrete opportunities, for example, in integrating the results of UBA work such as the ÖkoRess method for the effective assessment of environmental risks into the selection and design of new development cooperation projects in the mining sector, e.g. for strengthening mining supervision. UBA, with its understanding of the ecological risks involved in the extraction and processing of raw materials, should therefore play a more important role in the discussion of German and European development cooperation.

Leverage on: A strategic orientation of development cooperation towards environmentally-sound mineral extraction could benefit local governments, the civil society as well as companies in developing countries.

2.3.4 Increasing international engagement for legacy mine site rehabilitation in developing countries

Short term: It is recommended that Germany and/or the EU promote an international platform for supporting developing countries in the rehabilitation of legacy mines.

Mid and long-term: A platform can make a big contribution to create an inventory of legacy to mines in developing countries, to prioritize sites in terms of urgency and coordinate and provide administrative, technical and financial support for the rehabilitation.

Description: The discussion about good international raw material governance and corresponding frameworks and sector programmes mainly focuses on active mines, including concepts for the post-mining phase. Less international attention is currently being paid to the issue of the many legacy mine sites in developing countries which are not being remediated due to a lack of financing sources and/or lack of know-how or inadequate inventories. Exceptions are newly emerging concepts that promise interesting re-use of the sites, e.g. the recovery of secondary materials from old tailings, which today, in contrast to previous years, are becoming economical due to the availability of improved technologies or increased raw material prices. Up to now, there has only been selective knowledge of legacy mine sites in developing countries whose ores have been used in Germany/Europe. The legacy mine site mapping that has taken place in developing and emerging countries (e.g. in South Africa, Chile, Peru and in sub-Saharan countries) supports the assumption that the environmental challenges from legacy mine sites in developing countries are massive.

[28] UNDP (2016): Mapping Mining to the Sustainable Development Goals: An Atlas http://www.undp.org/content/undp/en/home/librarypage/poverty-reduction/mapping-mining-to-the-sdgs--an-atlas.html.

In 2008 a roundtable on restoration of legacy sites was held with key global actors such as ICMM, IUCN, governments, private sector, and representatives of NGOs[29]. One key recommendation was the creation of a global inventory and a risk assessment framework for prioritizing legacy sites. The roundtable further expressed the need for a „home" for international joint action and knowledge sharing and sees financial restrictions as one key obstacle for enforced rehabilitation efforts. The 2008 study for the IGF in 2008 also emphasizes that, in addition to national commitment, international support for developing countries is also necessary to cope with the financial burden.

Currently - 10 years after the Roundtable - there are, as before, scattered rehabilitation projects which are carried out, supported or financed by various national and international institutions. German actors here include GIZ and BGR; on the international level there are projects by GEF, UNEP, UNIDO, World Bank Group and others. Despite individual projects on the topic, there is still no broad-based international thematic programme that bundles the measures, develops an inventory and presents an action plan with priority areas. Many of the above-mentioned institutions focus on extractive industries with a focus on current mining projects (including good post mining management to avoid future contaminated sites) and on chemicals or waste or similar overarching topics, under which mine site rehabilitation is addressed among others. In summary, the topic is addressed in many individual activities, but a superordinate platform that gives an overview, coordinates and develops prioritizations is missing.

A similar conclusion is made by UNEP in the field of tailing dam management. There are similar gaps in the knowledge of the location of the numerous tailing dams for ore processing and the corresponding environmental threats from potential dam failures. Since they pose a major environment risk, a global inventory is proposed by UNEP. It would be conceivable to create synergies and jointly address inventories for tailing dams of operating mines, tailing dams in the post mining phase and legacy mine sites.

In addition to the focus on reducing environmental damage, such an inventory should also identify the potentials and benefits of remediation, taking into account various options for reuse. The recovery of valuable materials (e.g. secondary metals from old mine sites), reuse for tourism, forestry or even agricultural purposes can be considered. Other important points are capacity building and know-how transfer with the aim of building up administrative and technical capacities in the countries concerned.

Considerations are necessary regarding which existing or new institution could host the proposed platform. UNEP might be an adequate global institution that could advance the issue, eventually in cooperation with the GEF, which in principle finances selected rehabilitation projects under the 'chemicals and waste' topic.

Leverage on: An international platform for legacy mine would support states and implementation bodies, particularly in developing countries, in the rehabilitation of legacy sites with high hazardous risk.

2.4 Further explore opportunities for extraterritorial impact and for combining legal instruments with non-binding standards

Legal acts with extraterritorial impacts give states or the European Union an instrument to work towards an environmentally sound mineral extract in the state of origin via obligations for importers that are passed on in the supply chain. They empower states or the EU to act in the absence of binding or non-binding international standards.

[29] IUCN-ICMM Roundtable on Restoration of Legacy Sites, roundtable report, 2-8 March 2008, Toronto, http://msdata.iucn.org/downloads/iucn_icmm_post_mining_alliance_2008_legacy_roundtable_report.pdf.

2.4.1 Explore and assess options of extraterritorial legislation at national or European level, notably supply-chain due-diligence

Germany should further explore and assess further possibilities of addressing environmental issues of mining activities through national or EU rules with extraterritorial effect, potentially combined with non-binding standards. This is a mid- to long-term task, because it should take into account the implementation and effectiveness of the relatively recent models for this regulatory approach. Based on these models, key questions and options to be addressed include:

- Whether and how to use due diligence obligations as the core regulatory approach;
- Whether to establish sector-specific or general obligations;
- Whether and how the legislation integrates or links to non-binding standards (see separate recommendation below);
- Complementary options to strengthen implementation and enforcement in particular of due diligence obligations (see separate recommendation below).

Description: Insofar as legal and political opportunities in international law for setting environmental or social mining standards are limited, an alternative -or complementary- binding approach is to use domestic or EU legislation. Instead of regulating the mining activity as such, Germany could consider obligations on actors further down the supply chain, e.g. on importers. The idea is that the commercial power of the companies so obliged influences the supply chain from the demand side and eventually improves the environmental and social standards of mining activities abroad. In the case of the EU timber regulation, at least in theory there is also an incentive for the state of origin to improve its standards in order to establish FLEGT licenses which enjoy the presumption of legal harvest. The EU timber regulation thus provides an example for additional leverage on the producer countries: Bilateral agreements aim at reforms of the respective timber-producing partner state – the EU timber regulation refers to the legal regime of the state of origin as the standard against which to evaluate the legality of imported timber. Following this example, national or EU rules with extraterritorial effect could be complemented by bilateral agreements that aim to improve the legislation in the countries of origin. Such bilateral agreements could require certain standards in the state of origin that extractors have to comply with. In return, trading minerals from such states would be privileged, for instance by deeming such minerals to be aligned with national or EU supply chain due diligence or to be extracted legally. This economic advantage for exporters is an incentive for states of origins to conclude bilateral agreements and to improve their national laws. The EU conflict minerals regulation has a similar mechanism, which however does not apply to countries but instead to private actors, namely smelters and refiners. The European Commission will keep a list of so called global responsible smelters and refiners that are deemed to fulfil the requirements of EU conflict minerals regulation. Buying from listed smelters and refiners will reduce the scope of the supply chain due diligence obligation.

There are **regulatory examples** for the approach using legislation with extraterritorial effect, notably the EU CSR directive, the EU conflict minerals regulation, the EU timber regulation and the French law on the duty of vigilance. Although none of them set or refer to specific standards for mineral extraction, their approach could be a useful starting point. However, since they are quite recent and some do not even apply yet, it is too early to recommend one approach over the other. Germany should assess their differences and implementation, in order to consider whether and how these approaches could be used and adapted more specifically for addressing environmental issues of mining activities.

The assessment should take into account key differences in the four regulatory examples and include the following **key considerations**:

- What is the legislation's conceptual approach for eventually influencing the mining activities? All four examples use the **concept of supply-chain due diligence**, but with different stringency: The CSR directive merely requires companies to *report* on its due diligence processes, but not to *have* them. Others require companies not only to have and implement due diligence policies, but attach import restrictions or enforcement mechanisms such as liability and court proceedings. In addition, what exactly should the obligation to exercise due diligence contain? A due diligence obligation is not an end in itself. It has to be linked to a purpose, such as human rights or protection of the environment. To what extent should legislation indicate which diligence is "due", i.e. what a company has to do in order to fulfil the obligation to exercise due diligence? One option is for the law to refer to non-binding standards (see below, Section 2.4.2). An integration of country specific legality-criteria with respect to ecological, social and economic effects of mining may also be seen as an advantage.
- In parallel, Germany should consider **which material environmental and social standards** it would like to see implemented in extraction. This issue is distinct from how whether or not it should support the due diligence approach and the regulatory technique of linking binding obligations to otherwise non-binding standards which is addressed separately (see below, Section 2.4.2).
- Whether to pursue rules **specifically for the mining industry, or supplement general rules**, e.g. by adding mining-specific standards to general due diligence obligations? Conceptually, options include due diligence obligations that refer to specific environmental and social standards or, alternatively, to legislate a comprehensive law on due diligence obligations addressing environmental, as well as social and human rights related aspects.
- **Legislation at EU or domestic level?** New legislation or amend existing legislation? Generally, the legislative process for amending existing legislation is the same as for adopting new legislation. It needs to be assessed whether the chances for obtaining political agreement could be higher for amending existing legislation. For instance, the EU conflict minerals regulation already put in place a mechanism for addressing the mining industry specifically, which could be used to amend.
- How do supply chain due diligence obligations need to be designed to **be consistent with WTO law**? The principles of market access and non-discrimination are the cornerstones of international trade law. WTO members my not discriminate between products originating in the territories of different members and may also not treat domestic products "more favourable" then "like" imported products. However, there are exception for certain measures to protect the environment or relating to the conservation of exhaustible natural resources.

Options: The **different elements and approaches of the four regulatory examples could be combined in various ways** and of course also adapted as appropriate. One of the legally more stringent options would be to build on the example of the EU conflict minerals regulation and the EU timber regulation. For instance, environmental standards could be included in the EU's conflict minerals regulation, which appears to be particularly justified in cases where environmental impacts have severe negative effects on human health and living conditions and can therefore be interpreted as violations of human rights. Alternatively, a comprehensive law on due diligence obligations, comparable to the French law on the duty of vigilance, addressing the whole value chain and all economic sectors and incorporating environmental as well as social standards would be another feasible option for a legally binding instrument. While a sector specific law would allow for legislation focussed on the mineral sector, such as establishing obligatory and enforceable rules on public reporting by national or European importers, a comprehensive law on due diligence obligations may be more flexible and efficient. A

general rule in the law could be elaborated in more detail over time by the courts and at the same time by integrating sector specific, non-binding standards.

Leverage on: The concept of using obligations on actors further down the supply chain, e.g. on importers, provides indirect leverage on the mining activities in the countries of origin. The idea is that the companies obliged under EU or German jurisdiction use their commercial power to influence the supply chain from the demand side, which eventually improves the environmental and social standards of mining activities abroad. It should be kept in mind that the different approaches described, such as supply chain due diligence or legality requirements, are not an end by itself but should be designed to serve this purpose.

2.4.2 Explore and assess options for the legislation to integrate or link to non-binding standards

In order to cope with the complexity of the technical specifics and environmental effects of mining and to improve the effectiveness of new legislation, Germany should assess the regulatory option of integrating non-binding standards into extraterritorial legislation on due diligence obligations.

Description: The analysis of the regulatory mechanisms of the EU conflict minerals regulation and the EU timber regulation points at possibilities to address ecological aspects of mining activities in legislation which incorporates binding and non-binding standards. A comprehensive or a sector-specific national or EU law on abiotic resources could for instance establish obligatory and enforceable rules on public reporting by national or European operators on their supply chain due diligence policies and practices. Respective mandatory due diligence systems could be required to be established by the operators themselves or by recognized third parties as monitoring organizations. Certification schemes may be integrated in such a framework of risk assessment and risk mitigation procedures - the key elements of due diligence. A “process-based-approach” on mandatory self-regulation has advantages based on its “openness”: diversified due diligence and certification schemes can take into account the ecological specifics of business segments and producer countries as well as dynamic developments of the economic or regional context of mining.

- None of the four examples assessed by the study set or refer to specific standards for mineral extraction. There is a multitude of non-binding standards relating to the mining industry. New binding rules could assess the incorporation of the respective substance of these standards, or refer to one or several of them in a more or less exclusive manner. It could be useful to be able to refer to an overarching, globally accepted standard (see Section 2.2.1 on a global non-binding standard).
- There are different degrees of how detailed stipulations integrating external non-binding standards may be. Some of the regulatory examples simply refer to a list of external standards without specifying how this to be implemented or monitored and enforced by authorities. Others require the authorities to maintain some form of positive list or certification. Others, such as the French law, apparently do not refer to external standards and leave it to the authorities and courts.
- The purpose and added-value of referring to a non-binding standard should be clear. One consideration is that a non-binding standard could help maintaining a level playing field for the companies obliged by the legislation. It might also be simpler for the legislator to use the expertise that went into existing standards. On the other hand, referring to non-binding standards should not become a fig leaf for the legislator to pass on its own responsibility.
- One major obstacle to the integration of certification schemes by an account of mandatory self-regulation is that–in contrast to the timber sector, for example – there are currently no effective certification systems available for the environmentally friendly exploitation of abiotic

resources. The development of certification schemes or concrete criteria for a due diligence system would therefore have to go hand in hand with endeavours to develop functional criteria for responsible sourcing with regard to environmental aspects.

Leverage on: The regulatory options to combine a legal instrument with non-binding standards should be further assessed with respect to concrete options. The potentials of a "mixed" instrument depend on the existence of qualified non-binding-standards respectively on the question, if the adoption of such qualified standards is conceivable. The leverage of a mixed instrument therefore is related to the recommendations discussed in Section 2.2. Depending on the specific design, combining legal instruments with non-binding standards will have a cross-cutting impact on various stakeholders confronted with the mining issue. It can also have an impact on the mining policies in producer countries and respectively the rules for companies in the importing countries. Certification bodies will increase their efforts to develop certification schemes to demonstrate compliance with due diligence.

2.4.3 Assess complementary options to optimize the implementation and enforcement of due diligence obligations

A proposal for legislation on legally binding supply chain due diligence obligations should explore options to improve the efficiency of their implementation and enforcement. One option is the establishment of a civil liability of downstream actors and corresponding rules for choice of forum and legal standing in Germany e.g. for plaintiffs from countries in which the mining takes place

Description: The implementation analysis of the EU timber regulation substantiates, that the implementation, control and enforcement of due diligence obligations seems to be one of the main challenges of approaches to mandatory self-regulation: Analysis shows that state agencies often do not sufficiently control compliance and enforce violations of the obligations. The extraterritoriality of the relevant practices and possible violations renders it difficult for agencies to control the compliance with certain obligations and to illuminate the circumstances of infringements. It therefore should be considered to supplement the mechanisms of public control and enforcement by national authorities by establishing a civil liability of *downstream* actors for violations of due diligence obligations. Current civil proceedings before German[30] and other national courts[31] with respect to extraterritorial or cross-border human rights violations are examples for the general possibility as well as the legal and political functions of a civil liability. However, according to the current state of the law, parent companies and importers frequently cannot be held responsible for rights violations by subsidiaries or suppliers in other countries: European collision law may impede an effective access to justice for victims from producer countries. For example, in typical constellations concerning the liability in tort, the law of the producer country can apply, which may be less beneficial for the victims than European tort law.[32] Major impediments to a civil liability of down-stream actors and parent companies can also be found in material principles of contract law and corporate law. E.g. a parent company is, in general, not liable for the conduct of the subsidiaries in which it invests according to the principle of the separation of the corporate identity.[33]

Enabling victims to obtain compensation for harm resulting from non-compliance with due diligence obligations could be considered to be a major improvement of this legal situation. Extraterritorial

[30] Cf. Urt. V. 10.01.2019, Az. 7 O 95/15 (LG Dortmund Urt. v. 10.1.2019 – 7 O 95/15, BeckRS 2019, 388); Saúl Lliuya ./. RWE AG (Az. 5 U 15/17 OLG Hamm).

[31] Cf. Lungowe v Vedanta Resources plc [2017] EWCA Civ 1528, http://www.bailii.org/ew/cases/EWCA/Civ/2017/1528.html.

[32] Cf. Junker 2018, MüKo Bd. 12 (2018), § 7 Rom II VO, Rn. 21 f.

[33] Cf. van Dam, JETL 3/2011, 247.

rights of action could compensate for the limited range of the control of state authorities, as victims of the consequences of infringements could decentrally initiate the enforcement and e.g. account for evidence from the location of the violation. The risks of liability can provide a strong incentive for compliance for economic actors.

As the example of the French law on the duty of vigilance shows, rules on the civil liability of *downstream* actors may be integrated in a general law on due diligence obligations. The interplay between legally defined due diligence obligations, mandatory reporting and a rule on civil liability may also be productive in a procedural manner: The required content of the mandatory vigilance plan makes it easier for victims to overcome the burden of proof in the case of rights violations.

The effectiveness of legislation integrating rules on the civil liability for violations of due diligence obligations depends on various and complex substantial (e.g. thresholds for addressees, definition of due diligence obligations), procedural (e.g. rules on jurisdiction) and practical (e.g. barriers to the access to law for plaintiffs from countries of origin) preconditions. Approaches to strengthen governance for mining activities should further assess preconditions and regulatory options to establish extraterritorial rules on civil liability of downstream actors.[34]

Leverage on: Leverage could be increased by adding enforcement mechanisms such as liability, and corresponding rules for choice of forum and legal standing e.g. for plaintiffs from countries in which the mining takes place. Non-Governmental organisations would increase their effort to point at violations of due diligence. Dependent on the concrete design of a rule, risks of liability can provide a powerful incentive to compliance for economic actors.

[34] Cf. the research project "international liability of corporations for environmental damages" (Internationale Haftung von Unternehmen für Umweltschäden UFOPLAN-Projekt FKZ 3718 17 100 0), starting in September 2018.