Artisanal and Small-Scale Mining Formalisation

A German Development Cooperation Perspective and Beyond

Artisanal and Small-Scale Mining (ASM) remains a relevant topic for international cooperation efforts for two main reasons: the sector's role in supplying essential raw materials like cobalt and lithium for the energy and mobility transitions, and the fact that it often operates in conflict zones, raising issues of due diligence and ethical sourcing. Within this context, the formalisation of the ASM sector is gaining importance. This fact sheet summarises the key learnings from a study commissioned by the BMZ-commissioned GIZ Sector Programme "Extractives and Development". It outlines Germany's development cooperation commitment to ASM formalisation, and offers recommendations for advancing the formalisation agenda, drawing on interviews, literature reviews, and project document analysis.

Defining ASM

The ASM sector refers to mining operations characterised by a low level of mechanisation, minimal capital investment, and labour-intensive methods, often conducted on a small production scale.

> In 2012, the Organisation for Economic Co-operation and Development (OECD) offered a definition to distinguish ASM from other mining activities:
> „formal or informal mining operations with predominantly simplified forms of exploration, extraction, processing, and transportation. ASM is normally low capital intensive and uses high labour-intensive technology. ASM can include men and women working on an individual basis as well as those working in family groups, in partnership, or as members of cooperatives or other types of legal associations and enterprises involving hundreds or even thousands of miners."[1]

While ASM is a critical economic activity for millions, it faces significant challenges, including informality, environmental degradation, and poor health and safety conditions. The sector is also often linked to violent conflicts over valuable mineral resources. Formalising ASM is viewed as a key strategy to harness its economic potential while addressing its associated risks.

> According to the last annual State of the Artisanal and Small-Scale Mining Sector report 2023, ASM is the primary source of employment for at least 44,67 million people, of which 13,4 million are women across 80 countries worldwide[2].

Formalisation of ASM

The goal of formalisation is to make ASM more sustainable, equitable, and beneficial for the miners, their communities, and the broader economy. It involves a range of activities including legal recognition and licensing, improving labour conditions and safety standards, promoting environmentally friendly practices and enhancing social responsibility. Formalisation efforts also address issues such as child labour, gender equity, and community impacts through technical support and training. These efforts might include informing miners on safer techniques, more sustainable methods, and facilitating their access to formal markets for selling minerals. The latter helps miners obtain fair prices for their products and reinvest in their operations. Access to credit or financial services is also crucial in order to facilitate establishing their businesses.
By organising miners into cooperatives or associations, formalisation can also enhance collective bargaining power and access to resources.

> The terms „legalisation" and „formalisation" are often used interchangeably but represent different concepts. Legalisation refers specifically to the legal recognition of ASM operations, while formalisation is a broader process that includes integrating ASM into the formal economy, improving market access, and ensuring sustainability.

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Barriers to ASM Formalisation

Despite the benefits, formalising the ASM sector faces significant barriers. One of the primary obstacles is the complexity and cost of legal and regulatory requirements, which can be prohibitive for small-scale miners who often lack the necessary resources and knowledge to navigate these systems. Additionally, entrenched informal networks and corruption can make it difficult for miners to transition to formal operations, as these networks often have vested interests in maintaining the status quo. There is also resistance from within ASM communities themselves, where fear of increased taxation, regulation, or loss of livelihood can lead to reluctance in adopting formal practices. Moreover, when governments lack the resources or commitment, it can be hard to enforce formalisation policies effectively. Lastly, access to finance and markets remains a significant barrier, as many small-scale miners struggle to find the capital and buyers needed to operate within the formal economy.

German Development Cooperation (DC) in ASM Formalisation

In the 1980s, the perception prevailed that ASM are small entrepreneurs and the development cooperation focused on improving productivity for example by providing ore processing facilities to miners. Despite these efforts, it soon became clear that the targeted groups mainly consisted of subsistence miners who lacked the various preconditions to use the technology.

In the late 1990s, donor support for ASM shifted to incorporate livelihoods perspective. During this period, the GTZ (now GIZ) emerged as a pivotal player in bilateral aid for ASM in Sub-Saharan Africa, particularly in Zimbabwe and Ghana, both of which had vibrant artisanal gold mining sectors. The GTZ not only funded technical support initiatives but also facilitated significant partnerships with civil society, enhancing the effectiveness of projects like the Small-Scale Mining Project in Ghana, which included the establishment of administrative centres and technological facilities[3]. Nevertheless, while developing the mining industry in many countries of Sub-Saharan Africa, support, for example by the World Bank, was primarily directed towards the large-scale mining industry including the drafting of new mining legislations. Through licensing systems designed specifically for large-scale mining, unregistered ASM activities were rendered illegal.

In the 2000s, global efforts were made to tackle conflicts driven by mineral trade. One key initiative was the Kimberley Process, launched in 2003, which aimed to stop the trade of conflict diamonds. This certification scheme played a crucial role in reducing the flow of so-called conflict diamonds, supporting ethical practices within the ASM sector, and contributing to regional stability and development. Concurrently, ASM was recognised in Poverty Reduction Strategy Papers as a player in economic development. In Latin America, German DC supported programmes promoting the reduction of mercury in artisanal gold mining. The Minamata Convention of 2013 brought back attention to the environmental and health impacts of mercury use in ASM, resulting in stricter regulations and responsible sourcing guidelines. Over time, legal frameworks such as the Dodd-Frank Act in the USA, OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas, and the EU Conflict Minerals Regulation, along with certification initiatives like Fairmined and Fairtrade Gold, have integrated ASM into the global economy, promoting sustainability and ethical practices.

German DC, along with other international development agencies, has been actively involved in the formalisation of the ASM sector across various regions, primarily focusing on Sub-Saharan Africa and Latin America since the 1980s. These efforts include establishing and improving legal and regulatory frameworks, strengthening institutional capacities of governmental agencies, cooperatives and civil society organisations, enhancing environmental and social standards, and promoting the economic sustainability of the ASM sector.

Some recent examples of German DC include the support of multi-lateral initiatives like the European Partnership for Responsible Minerals (EPRM) and the World Bank multi-donor trust fund Extractives Global Programmatic Support (EGPS) as well as regional and bi-lateral projects. Inclusion of ASM into the Extractive Industries Transparency Initiative's (EITI) Standard disclosures adds transparency to the sector, an important lever for formalisation efforts. Germany is a strong supporter of the EITI.

[1] OECD (2016): OECD Due diligence guidance for responsible supply chains of minerals from conflict-affected and high-risk areas. 3. edition. Paris (FR): OECD. ISBN: 978-92-64-25247-9

[2] World Bank (2023): 2023 State of the Artisanal and Small-Scale Mining Sector, Washington D.C.

[3] Hilson (2002): Promoting sustainable development in Ghanaian small-scale gold mining operations. The Environmentalist 22, 51–57 D.C.

Regional Focus: Mano River Union (MRU) and the Kimberley Process

In the Mano River Union (MRU) region, comprising Sierra Leone, Liberia, Guinea, and Côte d'Ivoire, German DC supports the implementation of the Kimberley Process, aimed at preventing conflict diamonds from financing violence. Given the region's history of conflicts, the MRU focuses on promoting peace and security, which is critical given the role of minerals like diamonds in fuelling past conflicts. A key area of the MRU's work is aligning mining regulations and policies across its member states. This harmonisation is essential to addressing issues like illegal mining and smuggling, ensuring that ASM miners in one country are not disadvantaged by differing regulations in neighbouring countries.

GIZ's approach in the region centres on promoting sustainable extraction practices and local value creation. Although formalisation was not an explicit goal of the project, several of its activities are related to it. These activities included training local miners on safer and more environmentally friendly mining techniques and assisting in improving the governance structures that regulate mining activities. Furthermore, German DC supports MRU countries in combating illicit financial flows through enhanced cooperation between law enforcement agencies, civil society organisations, and mining associations.

Challenges: Limited resources, inadequate surveillance, and corruption continue to undermine efforts to formalise and regulate the ASM sector effectively. It became clear during the project implementation that if governments want to prevent smuggling, they must improve the living conditions of miners and mining communities. A key issue is how to establish value addition in the mining sector, ensuring that people benefit from resource extraction rather than merely experiencing its negative impacts.

Regional Focus: International Conference on the Great Lakes Region (ICGLR)

German DC has cooperated with the ICGLR since 2004 to improve responsible governance of natural resources and promote peace and security in the Great Lakes Region. This support is part of broader efforts by many cooperation partners to address the issue of conflict minerals – minerals that are mined in conditions of armed conflict and human rights abuses in the eastern Democratic Republic of the Congo (DRC), and with significant smuggling risks related to DRC's neighbouring countries.

The ICGLR certification scheme, also known as the Regional Certification Mechanism (RCM), is a key tool in this effort.

> The Regional Certification Mechanism (RCM) is a regional standard to combat the illicit production and trade of tin, tantalum, tungsten and gold (3TGs), which is part of the Regional Initiative against the Illegal Exploitation of Natural Resources (RINR) and first entered into force in 2011.

Measures include strengthening the institutional capacities of ICGLR member states to implement and enforce the certification scheme, enhancing traceability of minerals, promoting the involvement of various stakeholders, and support the monitoring and evaluation of the certification process.

Challenges: Many ICGLR member states struggle with limited resources, weak institutions, and a lack of technical expertise, which hampers their ability to enforce the RCM effectively. Corruption and poor governance as well as ongoing conflict and political instability in parts of the region further undermine the certification process, allowing conflict minerals to enter the supply chain.

Additionally, the informal mining sector, where many miners lack resources or incentives to comply with certification, poses significant challenges.

The complexity of mineral supply chains, involving multiple intermediaries and cross-border movements, makes traceability difficult. Issues like smuggling and fraud further complicate efforts to maintain clean supply chains.

Coordination among ICGLR member states is also challenging, with differing national priorities and capacities hindering cooperative efforts.

Lastly, monitoring and enforcing compliance with RCM standards is tough, especially in remote or insecure areas. Weak penalties for non-compliance reduce the effectiveness of the system.

Democratic Republic of the Congo (DRC): Complexities and Challenges

The DRC is rich in minerals like copper, cobalt, tantalum, tin, and gold, with millions relying on the ASM sector for their livelihoods. However, the sector faces significant challenges, especially in the eastern regions, where the mining of conflict minerals has been linked to funding armed groups and perpetuating violent conflicts.
Efforts of German DC and other cooperation partners focus on promoting formalisation, enhancing transparency, improving socio-economic conditions, and bolstering environmental protections.
The GIZ aims to create sustainable income opportunities for artisanal miners through vocational training and financial education, helping them transition to alternative livelihoods outside of mining. Meanwhile, the Federal Institute for Geosciences and Natural Resources (BGR) has advanced responsible supply chains in the DRC through the Certified Trading Chains (CTC) system and other initiatives, promoting transparency and sustainable mining practices and improving access to international markets.

Challenges: Despite these efforts, the DRC's complex political landscape, limited governmental capacities, corruption, and ongoing conflicts significantly hamper progress. The lack of government ownership and its weak enforcement capacity, especially in the eastern DRC complicate the situation.

Rwanda: Mine Inspections and Certification Efforts

In Rwanda, BGR supported national mining authorities to implement the ICGLR's Regional Certification Mechanism and the CTC approach, particularly between 2009 and 2016. These efforts led to successful mine inspections, supported by strong governmental backing.
Key developments during this period include successful mine inspections and the establishment of a national mineral certification unit. However, post-2016, there has been a shift towards promoting national mining companies, leading to a decline in support for ASM and pushing many operations into informality.

Challenges: Obstacles persist, including access to finance, business management, and sustainable mining skills. Moreover, the lack of reliable mineral traceability and the risks of smuggling, particularly concerning DRC-originating 3TG minerals, remain significant.

Ongoing Challenges and the Path Forward

Despite significant efforts by many countries, German DC and other international actors, the formalisation of the ASM sector faces numerous challenges across different regions. Issues such as weak governance, corruption, and conflicts of interest at various levels continue to hinder progress.

Legalising and formalising ASM is a complex but crucial process. Historical approaches of neglect, prohibition, or repression have not only failed but exacerbated existing challenges. Embracing legalisation and formalisation is vital to transforming ASM into a sector that robustly contributes to economies and promotes sustainable development.

Key Recommendations

Based on interviews and analysis, the following elements are crucial for successful ASM formalisation:

a) Secure land and mine tenure
Ensure miners have legally recognised rights to land and resources, fostering investment and sustainability.

b) Efficient licensing system
Develop a streamlined, cost-effective licensing process to reduce bureaucratic barriers and encourage legal operations.

c) Reliable market access
Facilitate connections between ASM operators and legitimate buyers, both locally and internationally. This involves establishing fair trading platforms and eliminating barriers that restrict small miners from entering the legal market.

d) Attractive financial incentives:
Provide tax breaks, subsidies, or other financial incentives to encourage sustainable practices and technological upgrades.

e) Technical and financial support
Long-term training programmes, coaching, technical advice, and financial aid to improve extraction and processing techniques, meet environmental and safety standards, and boost overall efficiency.

f) Enhancement of organisational capacities
Support the formation of miners' associations or cooperatives to strengthen collective bargaining power and resource access.

g) Integration into the local economy
Encourage the development of local industries that can benefit from and support ASM, such as equipment manufacturing, repair services, and local processing facilities ensuring economic benefits are retained within the community.

h) Promote participation
Promote participation of ASM organisations in designing policies and projects on ASM.

Conclusion

Without strong governmental resolve and a dedicated approach, efforts to formalise ASM are likely to fail, limiting their potential impact on the economic and social well-being of artisanal miners and their communities.
The success of the formalisation efforts hinges on the willingness and ability of governments to commit to improving the ASM sector. This commitment must be reflected through legislative frameworks that protect the rights of ASM operators, the allocation of financial, human, and technological resources, and transparency in license awarding procedures and revenue spending. Engaging actively with ASM communities and adopting a strategic approach that considers long-term environmental and social impacts are also essential.
Finally, addressing the involvement of illicit actors in ASM poses significant challenges for donors. A careful analysis is needed, as mining operations can be entangled with local or national power structures, making it politically sensitive for DC to intervene. The effectiveness of interventions largely depends on the willingness and capacities of local and national governments to combat corruption and enforce mining regulations. DC can support efforts to improve governance and accountability, invest in training and equipping local authorities, and engage with local communities to raise awareness about the negative impacts of illicit mining and the benefits of legal compliance. Funding programs that provide alternative livelihoods can also reduce economic dependence on illegal activities
In conclusion: Formalisation of ASM should not be viewed merely as a means to satisfy traceability for due diligence. A people-centred ASM policy that prioritises the needs and well-being of the mining communities and that emphasises the incentives for formalisation is needed.

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