

Artisanal and Small-scale Mining (ASM) of Copper and Cobalt in 2025



Results of Mine Site Field Survey in Haut-Katanga and Lualaba Provinces, Dem. Rep. Congo (DRC)

Alain Ciabu, Alain Ombeni (BGR/DRC Project), Pacifique Mubalama (SAEMAPE),
Jean-Jacques Kayembe (EITI DRC), Egyul Mamoko (CTCPM)

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Madrid, 12.05.2026

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Study Motivation

- Artisanal and small-scale mining (ASM) of copper & cobalt in the DRC is a **livelihood** base for >100,000 miners and their families
- The ASM sector faces a number of **ESG and transparency challenges**, due diligence risks, and formalization issues
- In view of regulations and reputational concerns, many international stakeholders **avoid sourcing** from the ASM sector, despite its importance for development & metal supply
- Addressing these challenges and developing impact-oriented solutions requires **credible information** – the study shall contribute to these efforts by the DRC mining authorities



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- **Since 2009**, the Federal Institute for Geosciences and Natural Resources (BGR) and the DRC Ministry of Mines have jointly implemented **technical cooperation** projects in the mining sector
- **Current project (2024-2027)** with three components:
 - ASM economics (geology, gender)
 - ASM and supply chain transparency (including this study)
 - Environmental management of industrial mining
- **Examples for previous work** on ASM transparency by BGR and the DRC Ministry of Mines:
 - Certified Trading Chains (CTC): 35 ASM mine audits (2011-2023); mine validation missions (3TG)
 - ASM Cu-Co sector mapping in 2018 and 2020 (published 2019 and 2021)
 - Training on ASM organization, responsible mining practice, digital supply chain traceability

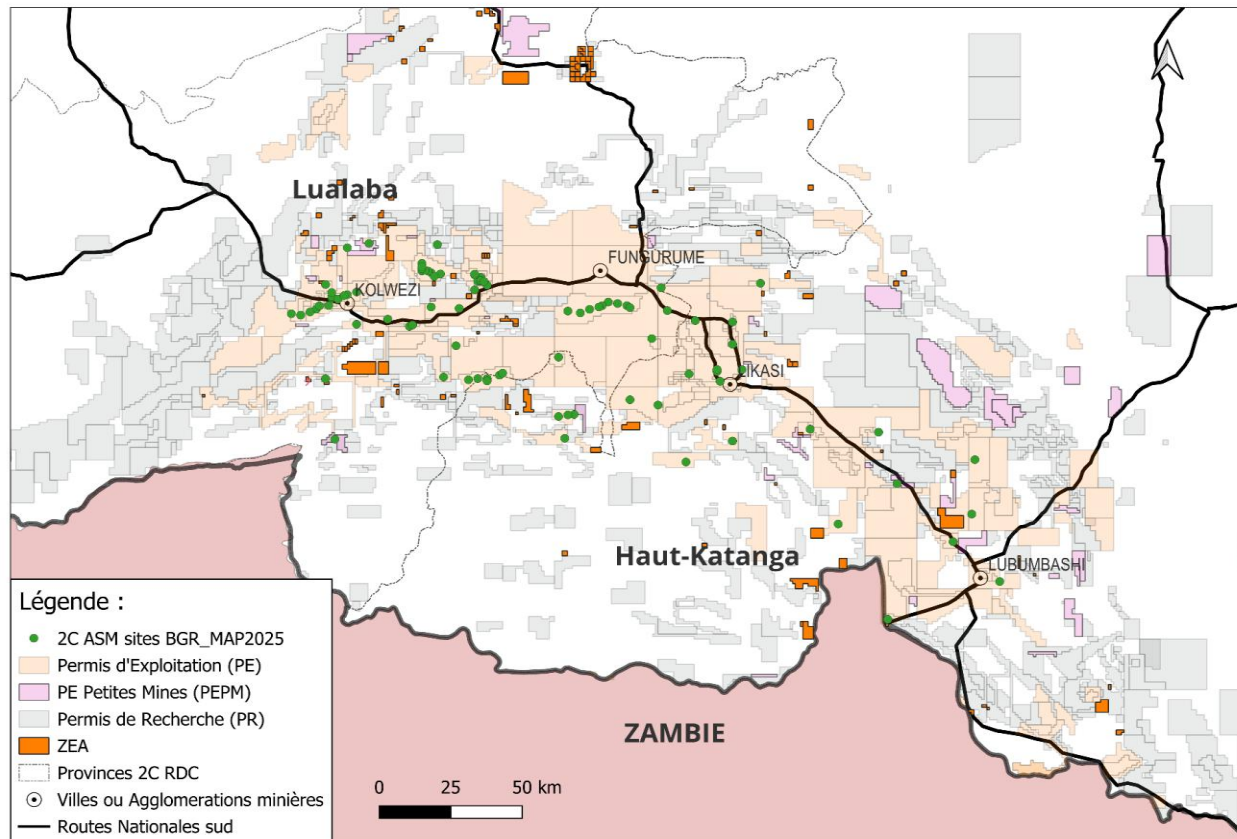
Objectives

- **Strengthen transparency** in the copper-cobalt ASM sector
- **Harmonize efforts** of technical partners: DRC Ministry of Mines, EITI (DRC), BGR
- **Update information** from previous work (2018-2020) to understand the dynamics
- **Build the capacity** of partners regarding field mapping methods
- Develop a **dashboard for accessing** ASM sector information, hosted by the DRC Ministry of Mines

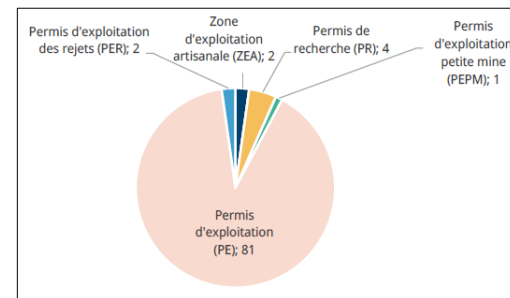
Implementation

- **Mapping and site visits** to 90 ASM copper-cobalt sites from April-June 2025 in Lualaba and Haut-Katanga provinces (traders/processors excluded)
- **Joint field team** of DRC Ministry of Mines (SAEMAPE, Adm. des Mines), BGR, EITI/DRC; data consolidation at the Ministry (CTCPM)
- **Cross-verification of findings** against government production data (SAEMAPE) and IPIS mapping findings (Lualaba province)
- **Data sources:** observations, interviews, document review; data capture with digital toolbox (Kobo Collect)

Distribution of copper-cobalt ASM sites in the DRC



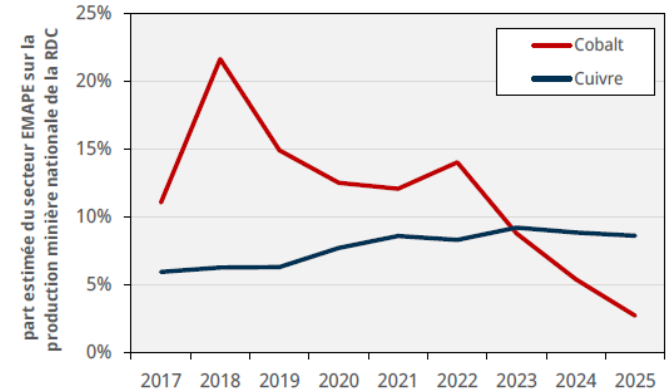
- Only 2% of 90 ASM sites (green dots) are located in official artisanal mining areas (ZEA)
- 98% of ASM sites located on 3rd party permits
- Out of 90 ASM sites visited, 15 declined access to team



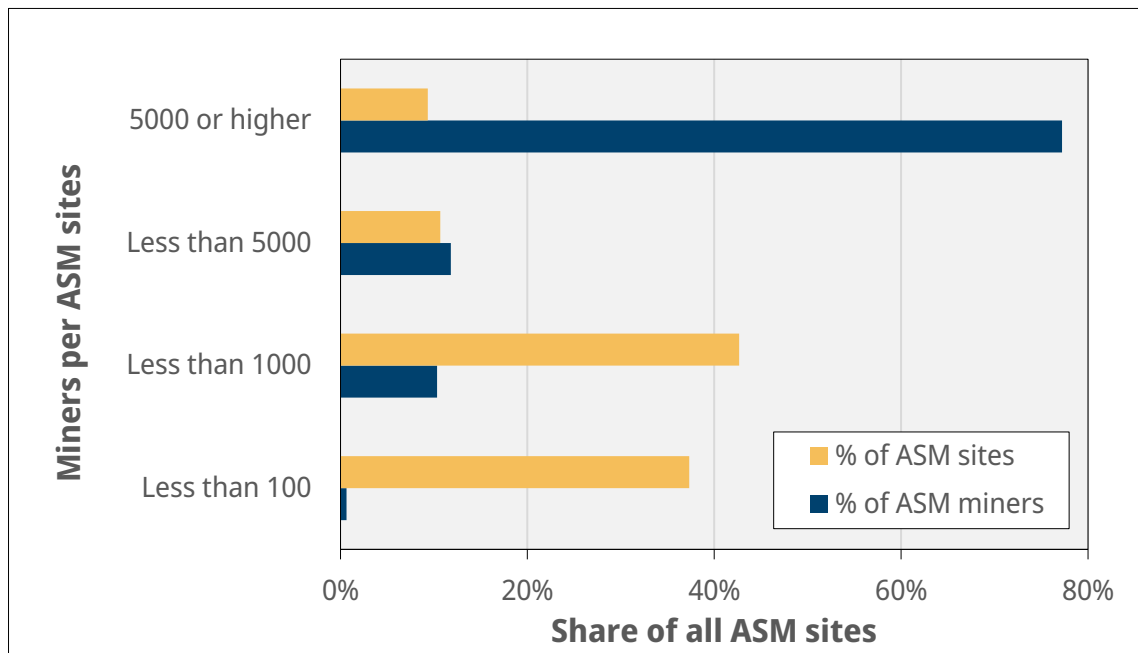
Development of ASM production



- ASM metal production has a **high uncertainty**, but **meaningful trends** can be established nonetheless
- DRC ore deposits often contain both copper and cobalt; artisanal miners focus on copper- or cobalt-rich ore zones
- **In the 2010s**, artisanal miners focused on cobalt-rich ore. National (DRC) cobalt production included a **significant share of ASM cobalt**
- **Over the past few years**, and especially in 2025, artisanal miners have increasingly focused on **copper-rich ore** – due to economic and regulatory reasons. In contrast, ASM cobalt production has decreased

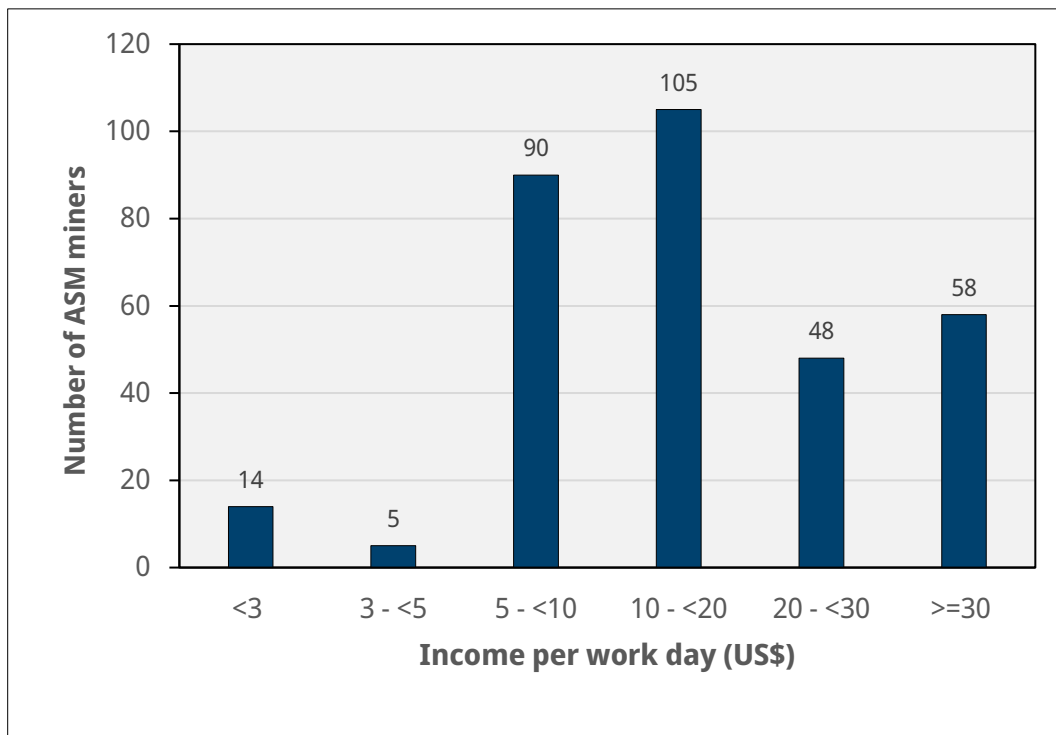


Distribution of copper-cobalt ASM sites classified by number of miners



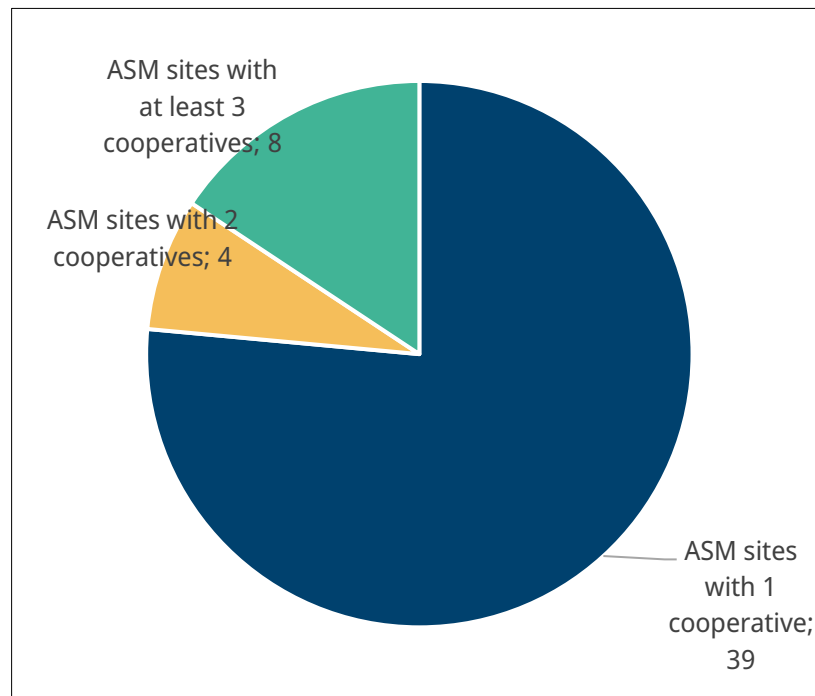
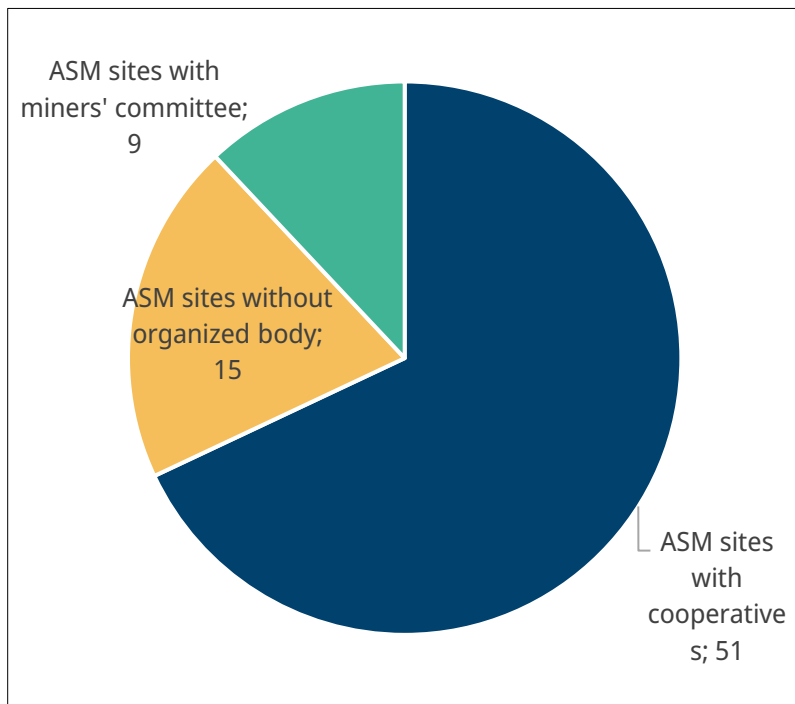
- ASM copper-cobalt production is currently concentrated on few major sites
- Controlling <10 major production sites would allow reaching 80% of the whole ASM population

Income level of artisanal miners

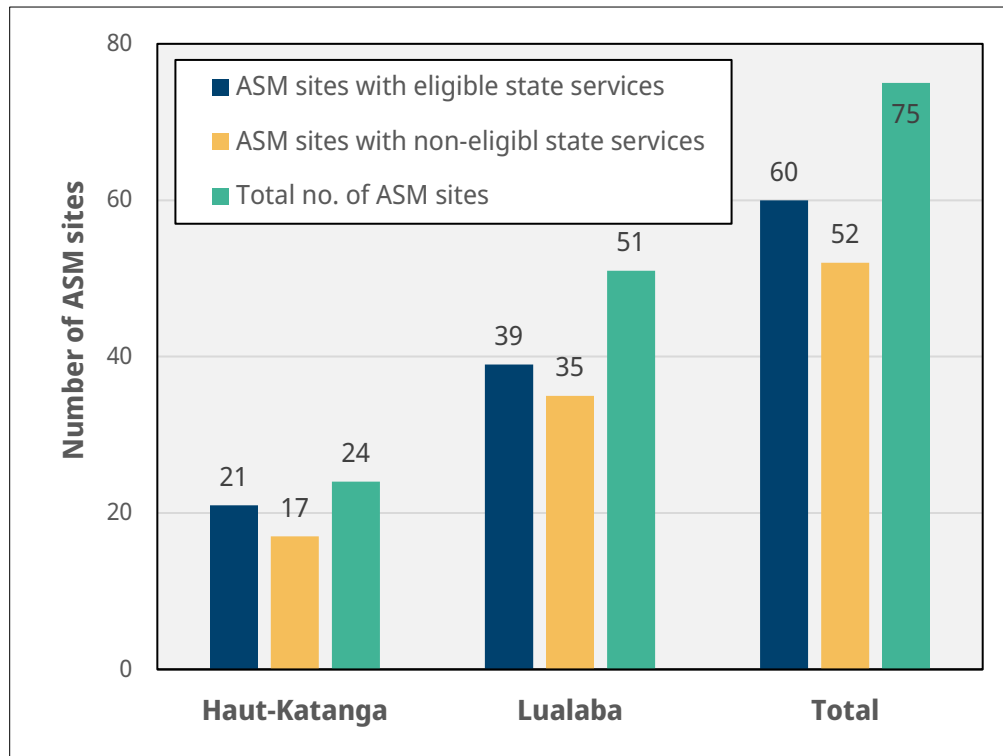


94% of artisanal miners earn more than the minimum wage during the 2025 field campaign, well above the global poverty line.

Organization of artisanal miners

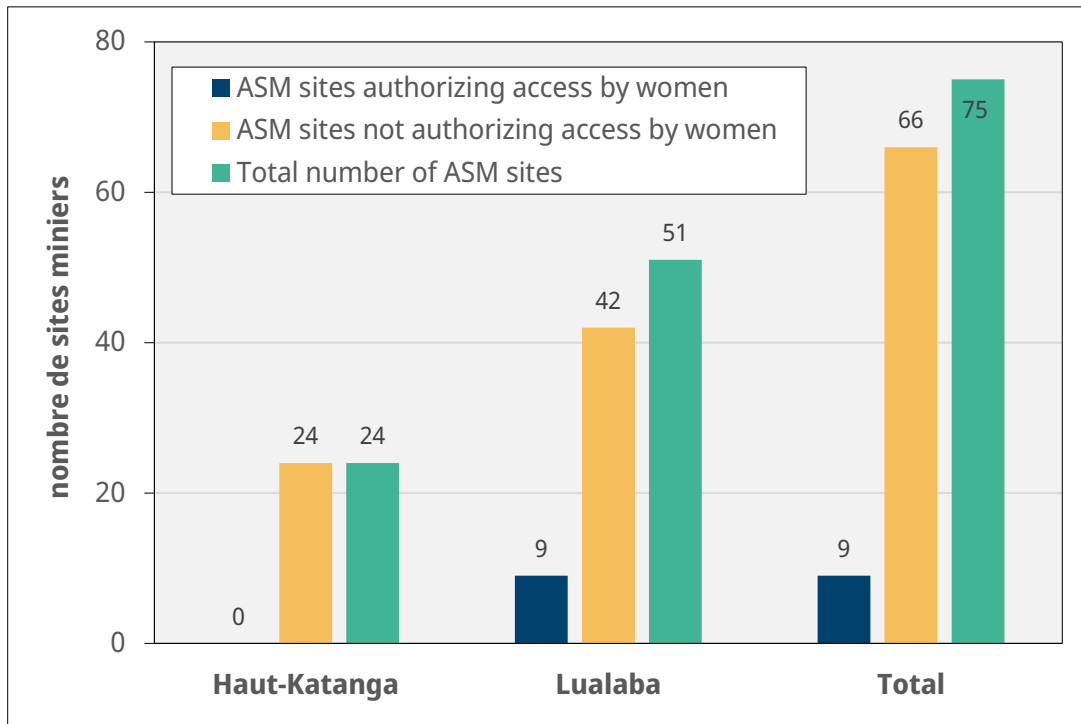


Presence and Role of State Officials at ASM Sites



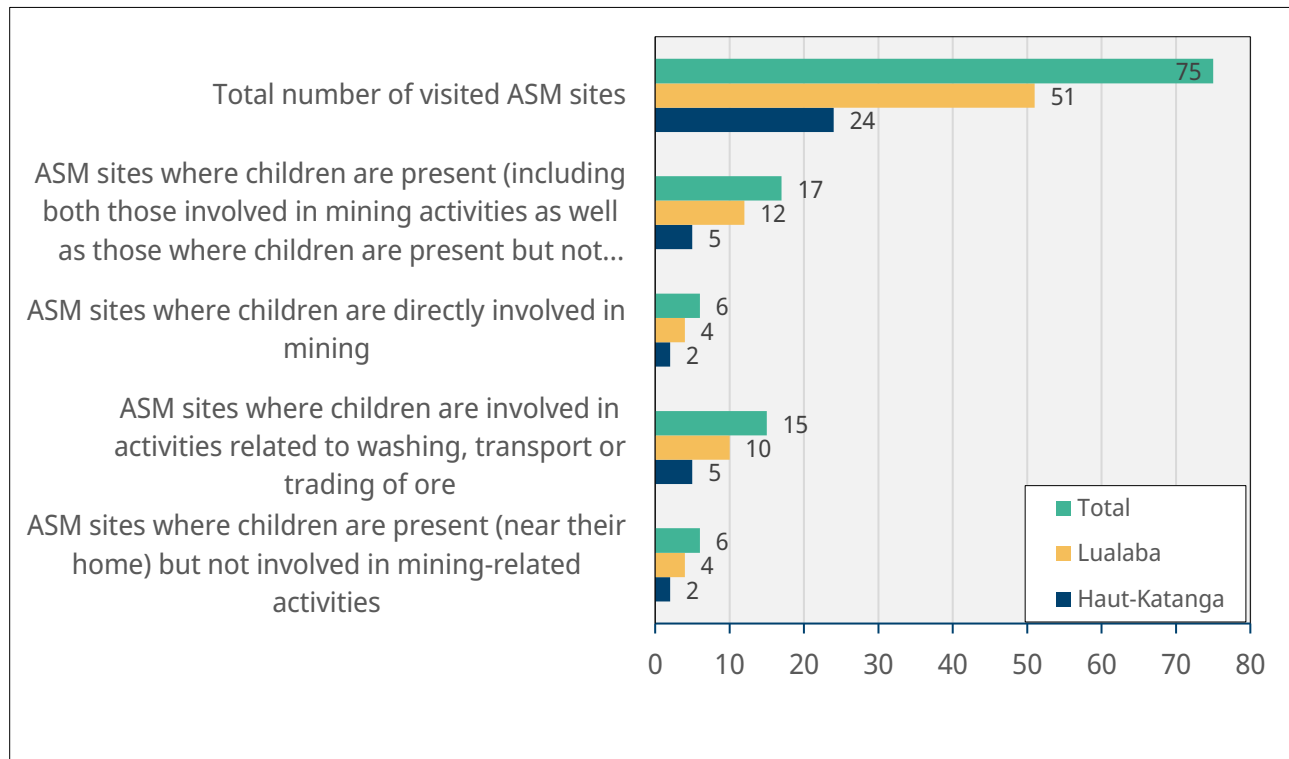
- The DRC Mining Law gives formal responsibility to control mine sites to few state services (PMH, Saemape, DivM)
- Additional state services may be called in for to provide security, but their presence is not mandated by law
- There is a widespread presence of such state services throughout the ASM copper-cobalt sector
- This also reflects that many ASM activities take place on industrial mining concessions, who may seek protection

Women's Presence and Discrimination



- Women are represented only in the approximately 11,000 identified mining operations
- The exclusion of women from mining operations in the majority (88%) of ASM sites is due to tradition and superstition
- Women usually perform non-mining activities, such as washing the ore

Presence of children on ASM sites



- Approximately among 2000 to 3000 children in total located in residential zones
- Affects both provinces
- Most children's presence reflects association of ASM sites and communities (villages)
- Presence of children implies child labor risks: 100-200 children observed directly involved in mining

Semi-Mechanization of ASM Sites



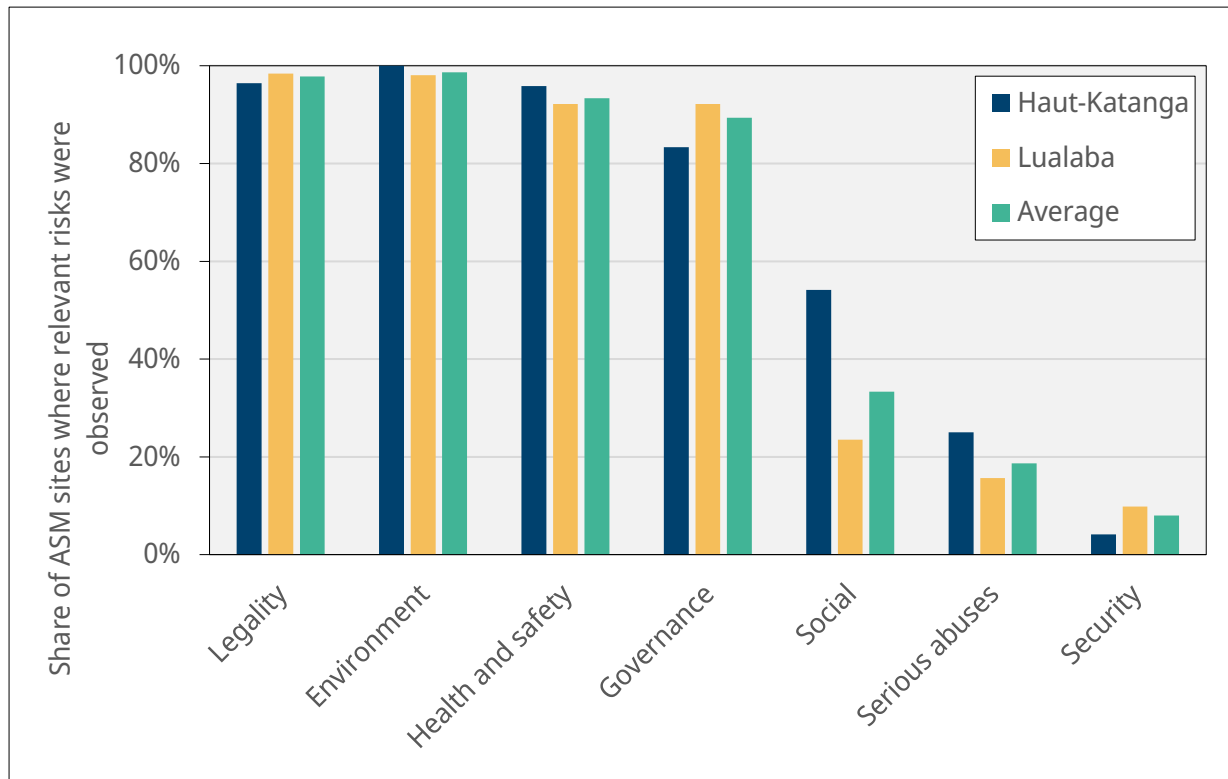
- Semi-mechanization of several mining sites (extraction and transport)
- Stripping of ore (improving working conditions and accessing mineral resources)
- Load and haul of mineral ores from the ASM site to processing plants
- ASM sites may generate environmental impacts similar to small industrial mines

ASM Indicative Risk Assessment



- Field teams performed an ad-hoc, generic risk assessment for general orientation.
- It is necessary for supply chain stakeholders to perform their own, detailed risk assessments.
- The risk categories evaluated were as follows:
 - 1. Legality**
 - 2. Governance**
 - 3. Environment**
 - 4. Occupational Health and Safety**
 - 5. Social**
 - 6. Security**
 - 7. Serious Violations (Human Rights – OECD DDG, Annex 2)**

ASM Indicative Risk Assessment



The top-4 risk categories are:

Legality

Environment

Occupational health and safety

Governance

The above risks mentioned demonstrate the need for holistic actions to formalize the ASM copper-cobalt sector.

Stakeholders should not only focus on single risks, such as child labor.

Conclusions and next steps



- A comprehensive dataset on the 2025 production situation in the ASM copper-cobalt sector has been established. This is accessible through a dashboard hosted by CTCPM.
- ASM copper-cobalt mining remains an important economic activity in the DRC. Advancing sector formalization will require addressing multiple issues.
- A follow-up mapping / study in 2026 will evaluate mine sites as well as extend further to selected DRC supply chain entities (depots, processing plants).

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FOR YOUR
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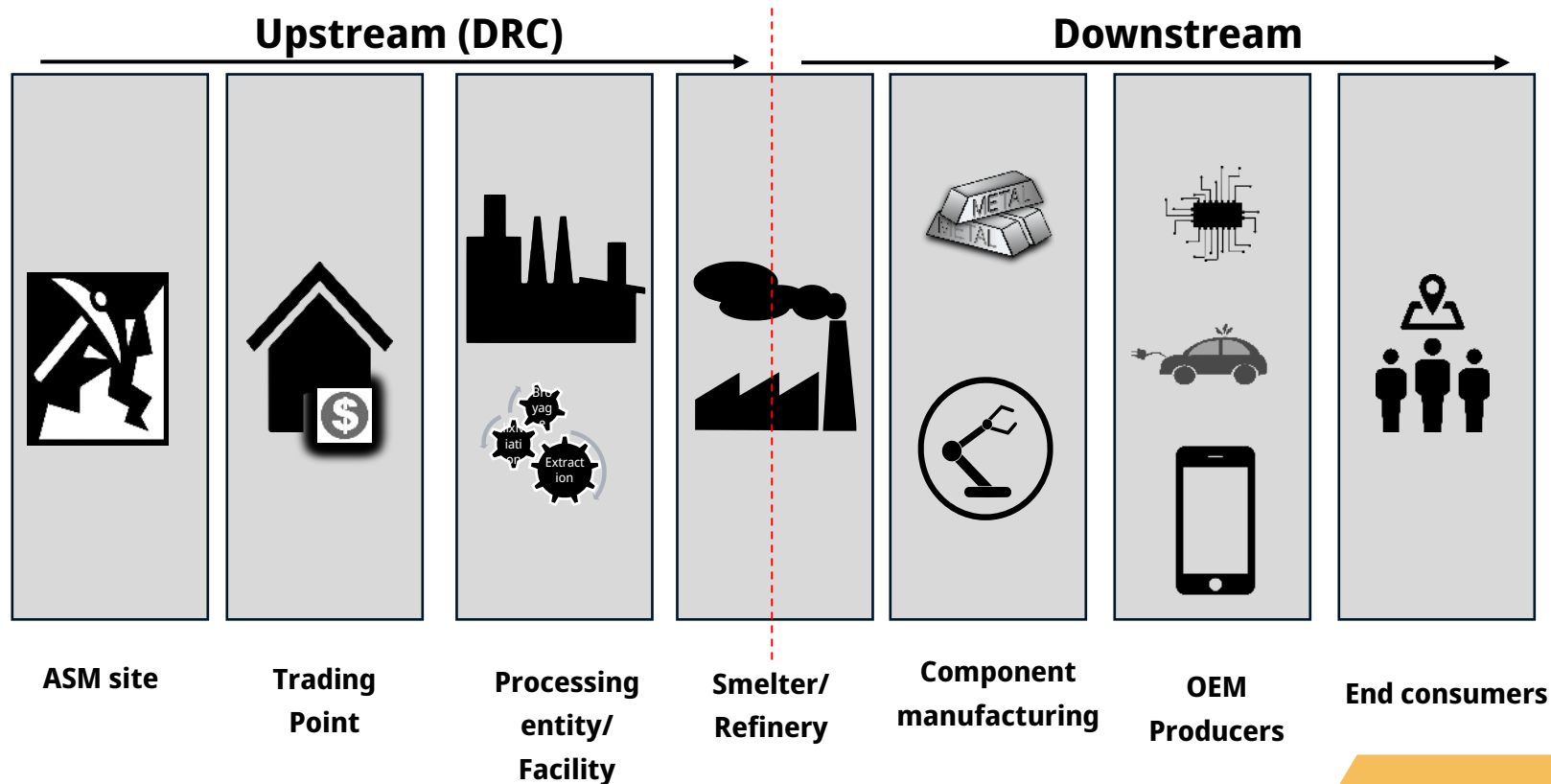
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Schematic overview of the ASM supply chain



Number of artisanal copper-cobalt miners



Artisanal Miners per ASM site	Share of Miners	Share of Site	Total number of artisanal miners	Total number of sites
< 100	1%	37%	720	28
>1000	10%	43%	11 600	32
>5000	12%	11%	13 280	8
>5000	77%	9%	86 751	7
Total			112 351	75

Summary table of risks



Risk category	Information / indicators gathered in the field
Governance (Transparency)	Mineral fraud and smuggling, unreliable production data, lack of proof of taxes paid, withholding of ASM identification cards, lack of mineral traceability
Environment	Poor management of tailings and mine as well as general waste, washing of ore in natural rivers or lakes, poor management of diesel (contamination risks)
Health and safety	Miners using personal protective equipment, working conditions
Social	Presence of children on site, situation of women (discrimination, pregnant and elderly women), resettlement, relationships between artisanal miners and local population
Sécurité	ASM site control by armed groups and non-armed groups (state or non-state, control by parties with political affiliation)
Serious harm	Torture, cruel, inhuman and degrading treatment, forced labor, the worst forms of child labor, sexual violence, war crimes (annex 2 of OECD Guidelines)
Légalité	ASM activities taking place on third party mining concessions, without considering informal agreements where the latter accept the presence of artisanal miners (legal gray area). Evaluation of this risk category was applied to all 90 ASM sites rather than just the 75 ASM sites visited during the field campaign of this study.