

# SUMMARY REPORT

**Comprehensive Mapping of the Upstream Copper  
Artisanal and Small-Scale Mining Supply Chains in  
the North-Western and Copperbelt Provinces  
of Zambia**

# Acknowledgement

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This study was commissioned and conducted by ActionAid Zambia (AAZ) and ActionAid Netherlands (AANL) with support from the European Partnership for Responsible Minerals (EPRM) under the Co-Mining: United in Responsible Copper and Cobalt Mining, project.

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# 1. CONTEXT AND PURPOSE

The study was commissioned by ActionAid Zambia and ActionAid Netherlands, in partnership with the Small-Scale Miners Association of Zambia (SSMAZ) and the Zambia Association of Manufacturers (ZAM) and supported by the European Partnership for Responsible Minerals (EPRM). It maps the upstream copper supply chains in the Copperbelt and North-Western Provinces, examining actors, roles, pricing dynamics, value distribution, gender inclusion, and governance with the aim of generating evidence to inform policy, programme design, and responsible sourcing initiatives. The study used a mixed methods approach, undertaking 27 key informant interviews (KIs), 7 gender-disaggregated focus group discussions, structured miner surveys, desk reviews, and site observations across Kitwe, Chingola, Kalulushi, Solwezi, Kalumbila, and Mwinilunga.

## 2. PROVINCIAL CONTEXT: TWO DISTINCT OPERATING ENVIRONMENTS

### 2.1 Copperbelt Province

ASM in the Copperbelt is concentrated at legacy slag dumps and tailings, most notably at the Black Mountain (Nkana Slag Dump) in Kitwe, which has historically contained over 20 million tonnes of smelter slag at grades of 1.2% copper. Activity is dense, youth-dominated (90% aged 16-24), and closely linked to Chinese-owned processors in Kitwe and Chambishi. Miners work in informal groups of 13 to 15 people and produce an average of 2 tipper truckloads per week (K10,000 per truck). The chain is short and localised, with processors, smelters and buyers all within 30 km. The key constraint is that pricing is set through verbal negotiation; no scales or LME reference, and payment irregularities are common. However, women's participation is largely limited to vending at the mine site; cultural norms and the absence of safety gear exclude them from extraction.



#### Black Mountain (Nkana Slag Dump)

has historically contained over **20 million tonnes** of smelter slag at grades of **1.2% copper**



**90%**

of ASM participants are youth aged 16-24 years.



miners work in informal groups of

**13 to 15**

people.



Average production:

**2 tipper truckloads**  
per week

Value: **K10,000**  
per truckload



The ASM value chain is short and localised; processors, smelters and buyers are all

within **30km** of the mining sites in Kitwe and Chambishi.



## 2.2 North-Western Province

ASM in North-Western Province involves primary copper ore extraction from pits, conducted by smaller family and community groups of approximately 10 members. The province has no local processing or smelting capacity. All material must be transported 300-500 km to the Copperbelt, a journey that buyers use to justify price deductions of 20-40% compared to Copperbelt rates. Power supply is absent at most ASM sites, telecommunication is weak, and seasonal flooding halts production. Notably, distance to processing facilities is the primary driver of low miner income and buyer dependency. In terms of gender disparity, women are more visibly involved in washing, sorting, and food preparation in the Copperbelt, but are still excluded from ownership and pricing.



**PRIMARY COPPER ORE EXTRACTION**  
from pits by smaller family and community groups of about **10 members.**



**NO LOCAL PROCESSING OR SMELTING CAPACITY**  
All material must be transported to the Copperbelt.



**LONG DISTANCE TO MARKET**  
All material must be transported 300-500km to the Copperbelt.



**PRICE DEDUCTIONS DUE TO DISTANCE**  
Buyers use the long journey to justify price deductions of **20-40%** compared to Copperbelt rates

## IMPACT ON MINERS



## 3. SUPPLY CHAIN STRUCTURE

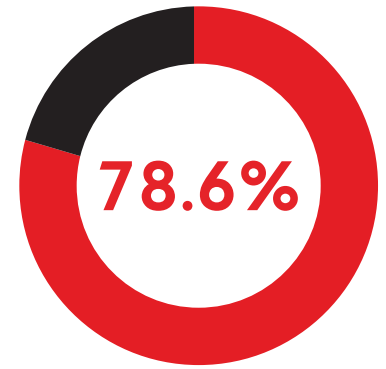
The two provinces operate structurally different supply chains as indicated in the table below:

Stage	Value Share	Key Actors	Copperbelt	North-Western
Extraction	10%	ASM miners	Slag & rivets from legacy dumps; youth-dominated (90% aged 16 to 24)	Primary copper ore from pits; family and community
Buying/Aggregation	25-30%	Middlemen, local traders	Short chain (30km); cash advances bind minerals to buyers	Long chain (300-500 km); travelling buyers; transport cost deducted from miner price
Processing (Concentration)	Included in 40-50%	Chinese-owned plants	Kitwe & Chambishi; ore crushed and concentrated on-site	No local capacity, all ore is transported to the Copperbelt for processing.
Smelting	Included in 40-50%	Chambishi Smelter, Sino Metals	Direct access; concentrates smelted to blister/anode locally	Only accessible via Copperbelt – NWP has no smelting infrastructure
Export & Off-Take	10-15%	Chinese/Lebanese traders	Concentrates and blister copper → China, Asia, Middle East	Same destination; no direct NWP export route

## 4. KEY FINDINGS

### 4.1 Market and Pricing

- ASM minerals are pure price-takers. Pricing is verbal, without scales, testing, or LME reference. Buyers use subjective visual colour grading to justify below-market payments. 78.6% of miners surveyed were unaware of international copper prices.
- Middlemen advance K50-200 daily for food and transport, deducted from sales. This binds miners to specific buyers, creating a monopsony that further suppresses prices. No formal microfinance or banking services are available to ASM operators.
- The waiver on copper concentrate exports incentivises processors to export semi-processed material rather than smelt domestically. When suspended, processors redirect to Sino-Metals; when reinstated, they revert to exports – preventing stable domestic beneficiation.



**78.6% OF MINERS SURVEYED WERE**

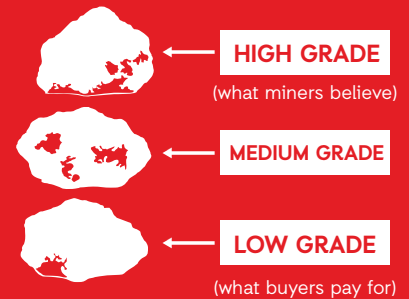
unaware of international copper prices.

ASM minerals are pure price-takers. Pricing is verbal, without scales, testing, or LME reference.

Buyers use subjective visual colour grading to testify below-market payments.



**SUBJECTIVE VISUAL COLOUR GRADING** used by buyers to justify lower prices.



### 4.2 Gender and Social Inclusion

- Women constitute 30% ASM participants nationally but are confined to low-paid auxiliary roles: washing, sorting, and vending. Ownership of mining sites, tools and licenses is overwhelmingly male dominated.
- Women's participation is more visible in NWP than in the Copperbelt, but income and decision-making disparities remain pronounced in both provinces.
- At Black Mountain, youths aged 16 to 24 constitute 90% of diggers. The presence of under-18 participants raises safeguarding concerns. No age-verification mechanism is in place at any ASM site.



women constitute

**30%**

**OF ASM PARTICIPANTS NATIONALLY**

**CONFINED TO LOW-PAID AUXILIARY ROLES**



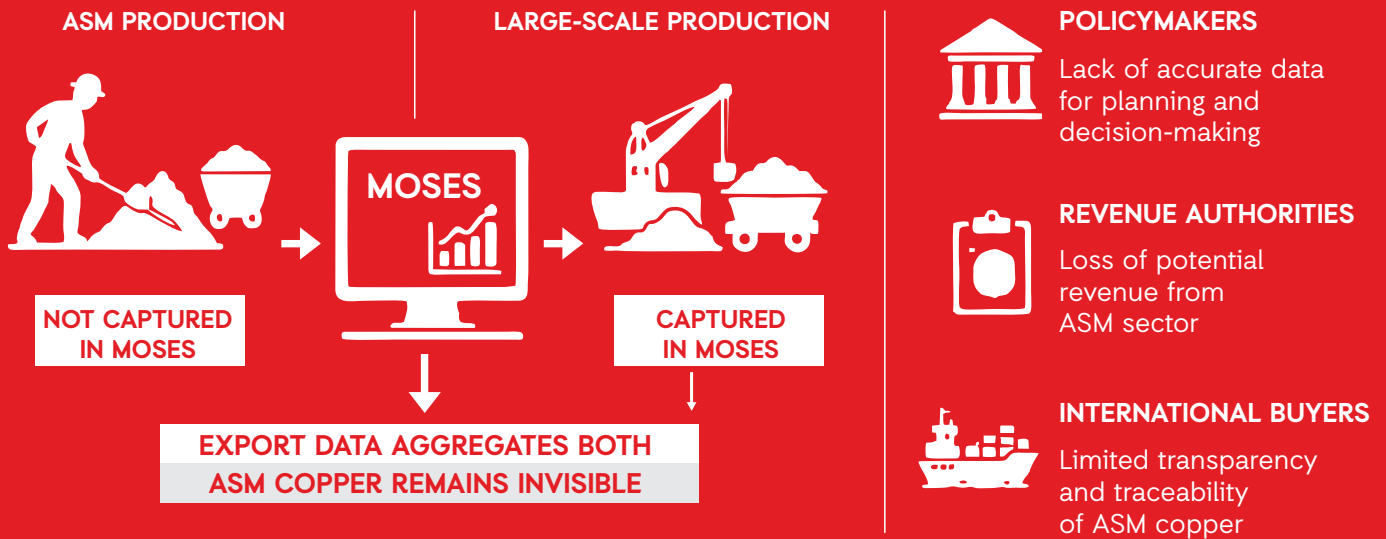
WASHING



SORTING



VENDING



### 4.3 Governance and Traceability

- ASM production is not captured in MOSES. Export data aggregates ASM and large-scale mining, making ASM copper invisible to policymakers, revenue authorities and international buyers alike.
- Neither MMMD nor ZEMA conducts field visits to ASM sites in either province. Most miners are unaware of licensing requirements or reporting obligations. Formalisation costs (K900 license + K60,000 environmental brief + K13,000 ZEMA certification) remain prohibitive

### 4.4 International Dimension

ASM copper reaches international markets indirectly via Chinese-owned processors and traders. International buyers, bound by the OECD Due Diligence Guidance, the EU Conflict Minerals regulation, and the Australian Modern Slavery Act, in practice purchase ASM-origin copper without conducting upstream supply-chain due diligence. This is a governance failure and a missed opportunity to leverage international procurement as a driver of formalisation.



## 5. RECOMMENDATIONS

### **Market transparency:**

Establish district Mineral Buying Centres with certified weighing, testing equipment and weekly LME-referenced price bulletins to break the middlemen's pricing monopoly.

**Local Value Addition:** Invest in community-scale concentrators in North-Western province to reduce transport dependency. Review and, where appropriate, reform the export duty waiver on concentrates to incentivise domestic smelting.

**Formalisation:** Reduce and decentralise licensing and environmental permit costs. Adapt MOSES and FlexiCadastre to ASM realities and establish field-level support services, particularly in NWP, where regulatory visibility is near zero.

**Gender equity:** Implement targeted financing, equipment access and occupational safety programmes for women. Revoke Section 132 of the Labour Code Order of 1992 to permit women's participation in underground activities.

**Supply chain traceability:** Require processors applying for export licenses or export duty waivers to declare the proportion of ASM-sourced feedstock. The single measure would begin making ASM copper visible in official data.

**International accountability:** Engage international buyers, smelters and downstream companies to extend responsible sourcing due diligence upstream to the ASM level. Leverage international procurement requirements as a driver of ASM formalisation and fair pricing.

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