



# Artisanal Miners' Demographic and Migration Profile Assessment (AMDM)

MOZAMBIQUE: Tete and Zambezia | December 2023



## BACKGROUND

Artisanal mineral extraction attracts high numbers of migrants within Mozambique, and the Southern African region more widely. These informal mining points are particularly vulnerable to communicable diseases, and communities often have limited access to basic social infrastructure, including health facilities.

The Artisanal Miners' Demographic and Migration Profile Assessment (AMDM) aimed to explore the socio-economic and migratory patterns of artisanal miners in two significant locations: Gile, Zambezia, and Cahora Bassa, Tete. In focusing on these two remote mining areas in Zambezia and Tete respectively, the AMDM provides an evidence base that complements IOM's support to a migrant-friendly health service model that bridges gaps between migrants and host communities in vulnerable regions.

With calculated sample sizes of 117 and 170 respectively, to achieve a 95% confidence interval and a 5% margin of error- the AMDM survey delved into the miners' movement history, educational backgrounds, employment profiles and livelihood strategies. This comprehensive inquiry sought to uncover the migration patterns, educational attainments, main sources of income, banking and financial practices, and familial obligations of the miners, including the impact of their labor on minors with interviewed families. By understanding these aspects, the AMDM aims to provide insights into the challenges and opportunities faced by these under-served migrant communities, informing policy and support mechanisms to enhance their access to health services, livelihoods and other socio-economic conditions in Mozambique.

## WHERE ARE THEY FROM?

The survey shows that majority of the miners are from Mozambique (93%, Cahorabassa and 100% Gile mining site) with the rest of the miners coming from neighboring countries (Zimbabwe and Malawi). In the same vein, 72% of the miners from Mozambique are also from the site province of Tete in Cahora Bassa and 74% from Zambezia, Gile site.

### Cahora Bassa, Tete

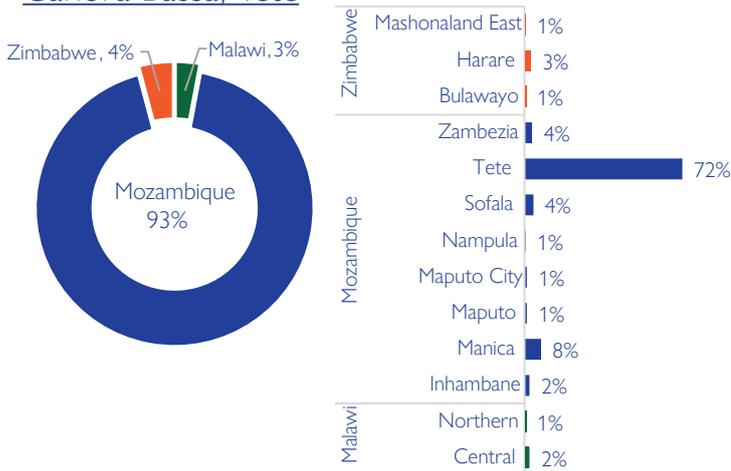


FIG 1: Migration pattern, Cahora Bassa, Tete

### Gile, Zambezia

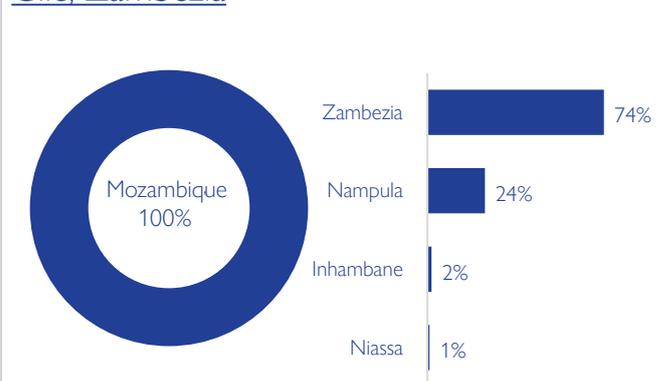


FIG 2: Migration pattern, Gile, Zambezia

## PREVIOUS WORK IN THE PAST FIVE YEARS

The survey analysis of artisanal miners in Cahora Bassa and Gile reveals distinctive migration patterns and employment sectors. In Cahora Bassa, only 10% reported working in another province, with mining (53%) and commerce (12%) being the most common sectors. Gile displayed a higher mobility rate, with 20% working in another province, predominantly in mining (61%) and commerce (22%). This indicates a significant internal migration trend among miners, primarily driven by opportunities in the mining sector. Furthermore, available data underscores the critical role of mining in the livelihoods of artisanal miners, alongside notable engagements in commerce and agriculture, reflecting the economic diversities within these communities.

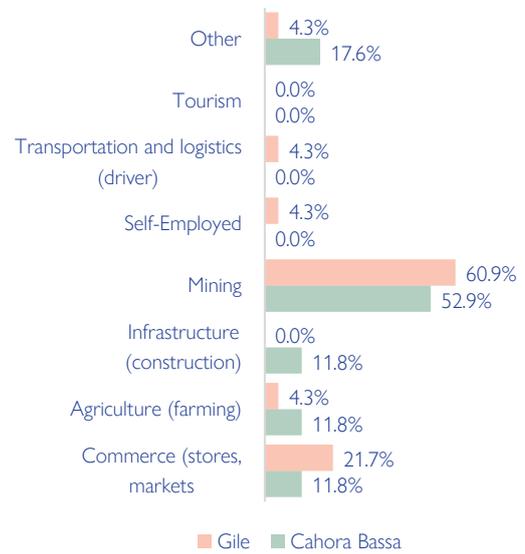


FIG 3: Employment history of miners interviewed

## DURATION AT THE MINING SITE

Artisanal mining communities form rapidly whenever and wherever minerals are found. In Mozambique, multiple informal sites are mined by 8 to 10 individuals per site. Migrant miners often do not have regular healthcare services. Although serving as a significant source of livelihood, this is a serious issue for miners, frequently on the move and working in an unregulated and informal sector.

In Cahora Bassa, the majority (80%) are unsure about their stay duration, followed by 9% intending to settle. Notably, 4% plan to stay more than one year. In Gile, a larger proportion (89%) are unsure, with 9% planning to settle permanently. Unlike Cahora Bassa, Gile has no respondents planning to stay more than a year.

This indicates a prevailing uncertainty among miners in both locations regarding their future plans. The insignificant percentage of those intending to settle suggests some find these areas unsuitable for long-term residence. Consequently, the overall uncertainty might reflect the dynamic nature of artisanal mining environmental and human costs of a vital livelihood source.

In Cahora Bassa, 50% of miners planning a 3-12 month stay show a mixed pattern regarding family location; notably, 74% without local family ties are uncertain about staying. Gile presents a clearer trend: 64% intending to settle and 82% uncertain about their stay have family elsewhere, emphasizing family ties' strong influence on residency decisions.

This analysis suggests that in Gile, miners with family members in another location are more inclined to consider settling or express uncertainty about their stay, possibly reflecting the influence of family ties on their mobility and settlement decisions. Conversely, in Cahora Bassa, a higher proportion of respondents without family in another location still show uncertainty or a desire to settle, indicating that factors other than family location might influence their stay duration decisions.

## MAIN LANGUAGE SPOKEN

In Cahora Bassa, 65% mainly speak Nhungwe within their communities, showcasing cultural identity amidst linguistic diversity with Portuguese (11%), Cichewa (8%), and Shona (8%) speakers, whereas in Gile, Lomwe dominates as the preferred spoken language amongst 67%, indicating a more homogeneous linguistic community, followed by Makhuwa (21%).

This highlights the distinct cultural identities of the two locations. Cahora Bassa's diversity, including a significant portion speaking Portuguese, suggests broader communication channels in a potentially more cosmopolitan setting. In contrast, Gile's language profile suggests a more insular community with strong ties to local traditions and languages.

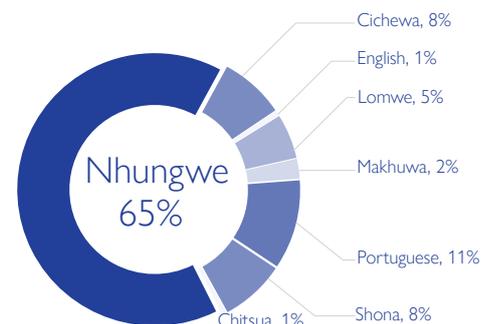


FIG 4: Language spoken, Cahora Bassa, Tete

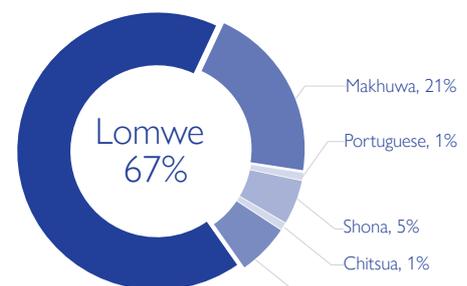


FIG 5: Language spoken, Gile, Zambezia

# EDUCATIONAL LEVEL

In Cahora Bassa, the majority of respondents have primary education (51%), followed by no formal education (26%), while in Gile, primary education is also most common (54%), but there's a higher percentage of secondary education (28%) and no reported cases of higher education.

Education levels predominantly center around primary and secondary schooling in both locations, with a notable absence of higher education degrees among respondents. This educational profile correlates with the types of employment pursued, where labour-intensive mining stands out as the primary sector, followed by commerce and agriculture.

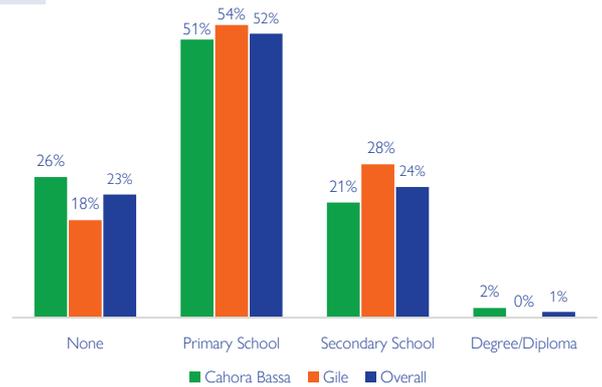


FIG 6: Education

The absence of higher education levels might reflect the socio-economic background and limited access to tertiary education within these communities. The types of employment, especially the prominence of mining, align with the artisanal nature of their work and the local economic opportunities available to them. This analysis underscores the interplay between educational attainment and employment choices in artisanal mining communities, highlighting the reliance on natural resource-based and informal sectors for livelihoods.

# PERSONAL FINANCE

In Cahora Bassa and Gile, a significant majority of male and female interviewed miners identify as the main income source for their families, at 92% and 78% respectively, with both locations reporting 19-21% of children involved in work. The majority of children found in these mines are engaged in hazardous work. This includes the use of heavy hand tools to excavate pits and remove dugout materials for underground extraction, unprotected operation of crushing and milling machines, and panning mineral-bearing material in streams using hazardous chemicals. Cahora Bassa sees a low bank account ownership at just 9%, Gile's population is evenly split on this matter. For mobile money use, though Gile has double the proportion of residents sending remittances compared to Cahora Bassa. Comparatively, Gile demonstrates a more balanced approach to banking and mobile money usage than Cahora Bassa, suggesting better access to or trust in financial services.

The necessity for loans is low in both areas, suggesting either a lack of access to credit or sufficient means to cover basic expenses without borrowing. The stark contrast in remittances between locations underscores different family dynamics or economic needs, with Gile showing a much higher engagement in supporting family members through local and international remittances.

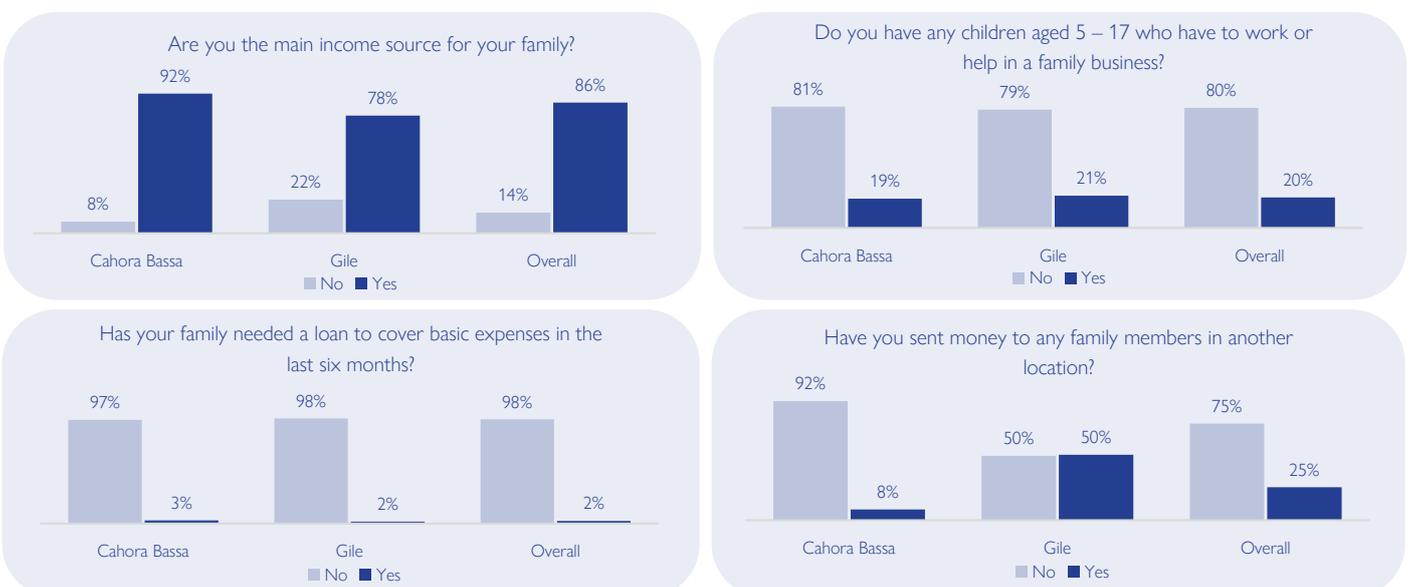
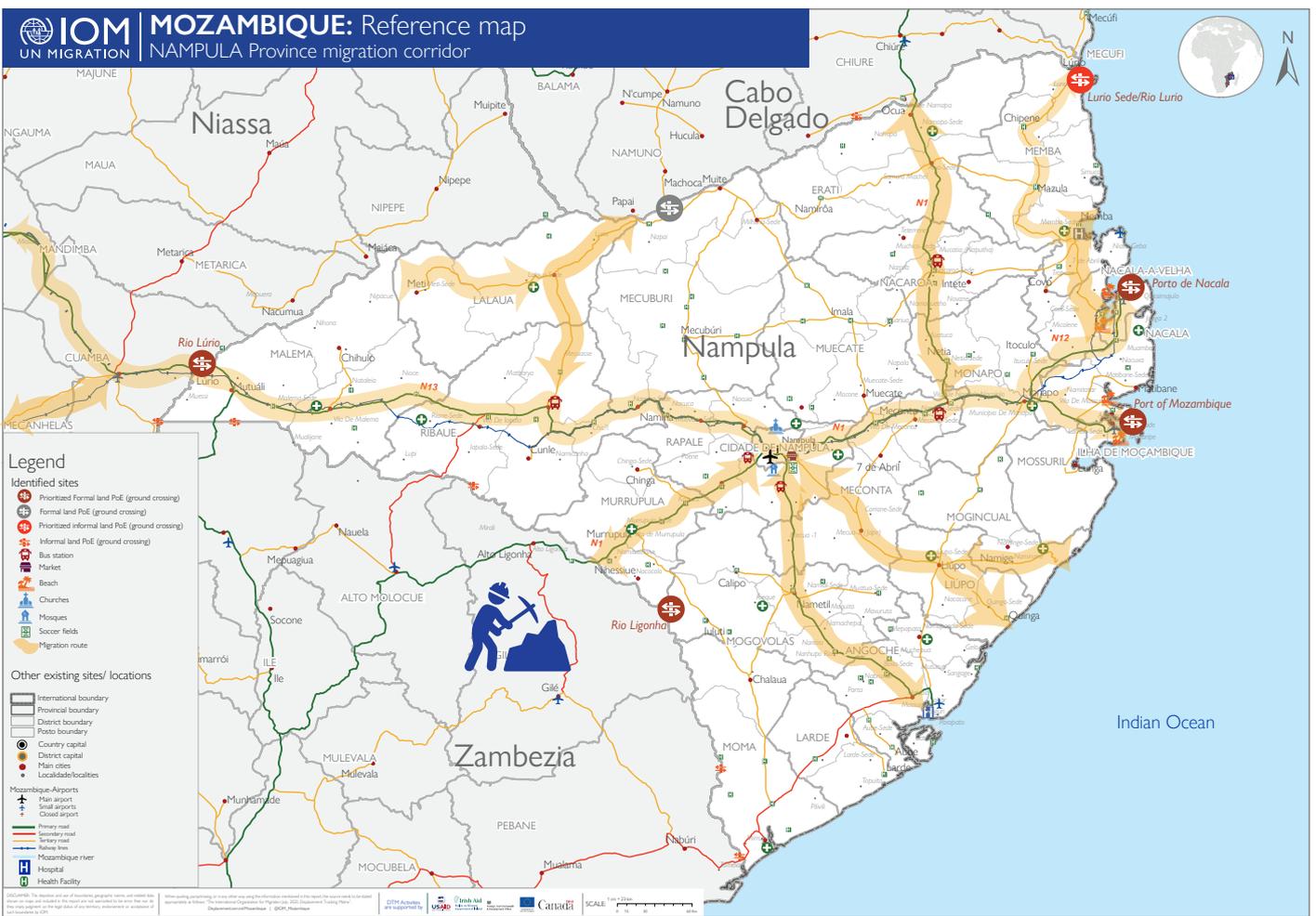


FIG 8: Financial patterns observed



## CONCLUSION

The Artisanal Miners' Demographic and Migration Profile Assessment (AMDM) provides a comprehensive overview of the socio-economic and educational backgrounds, migratory patterns, financial behaviors, and employment profiles of artisanal miners in Cahora Bassa and Gile. The analysis reveals a significant reliance on primary and secondary education levels, with a predominant engagement in mining, followed by commerce and agriculture. Notably, Cahora Bassa and Gile exhibit differences in financial inclusion, mobile money usage, and familial support through remittances, reflecting varying access to financial services and economic stability.

A considerable percentage of miners interviewed are the main income sources for their families, with a minor yet significant portion of children participating in work, underscoring economic pressures. The low incidence of loan needs suggests a level of economic resilience or lack of access to formal credit facilities.

Linking these findings to health implications, the economic pressures, limited educational opportunities, and reliance on artisanal mining could impact miners' and their families' health. Limited financial inclusion and access to services might hinder their ability to access healthcare, leading to potential health disparities and disadvantages. The presence of child labor also raises concerns about children's health and development, emphasizing the need for integrated socio-economic and health interventions to address these communities' multifaceted challenges.

## LIMITATION

Conducting the survey in Portuguese may have posed a limitation since, despite a general understanding of Portuguese among the miners, the predominant languages spoken are Nhungwe in Cahora Bassa and Lomwe in Gile. This could lead to potential misinterpretation of questions and affect the accuracy of the responses, considering the significant majority communicate primarily in their local languages. Such a language mismatch can impact the depth and reliability of the collected data, suggesting a need for linguistic adaptation in future assessments to ensure clarity and enhance respondent engagement.

Furthermore, owing to the informal nature of the sector, the current AMDM Assessment was unable to assess on the total number of reported incidents resulting directly influencing deteriorating health conditions, injuries and death of miners. Most injuries are dealt with in private requiring further dedicated assessments into the environmental and health risks associated with unregulated artisanal mining.