

Informing dialogue on artisanal and small-scale mining in Tanzania

A thematic review of challenges
and solutions

Fitsum Weldegiorgis and Abbi Buxton

Discussion Paper

October 2017

**Sustainable markets; Natural
resource management**

Keywords:
Mining, artisanal and small-scale mining,
dialogue

About the authors

Fitsum Weldegiorgis is a senior researcher at IIED and Abbi Buxton is an IIED associate.

Corresponding author email:
fitsum.weldegiorgis@iied.org

Acknowledgments

The authors would like to thank Tanzanian ASM stakeholders whose ideas and insights make up the core content of this paper. We would also like to thank Lucy Lynus, representing HakiRasilimali, who helped coordinate the thematic dialogues on which this paper is based; and the theme experts, Dr Willison Mutagwaba and Dr Rosemarie Mwaipopo, who presented key thematic challenges and co-facilitated discussions. Thanks are also due to Dennis Allan Eliashifie, who provided translations, transcription of notes and general coordination support.

Produced by IIED's Shaping Sustainable Markets Group

IIED's Shaping Sustainable Markets group works to make sure that local and global markets are fair and can help poor people and nature to thrive. Our research focuses on the mechanisms, structures and policies that lead to sustainable and inclusive economies. Our strength is in finding locally appropriate solutions to complex global and national problems.

Partner organisations

This discussion paper is based on thematic dialogues conducted in collaboration with **HakiRasilimali**, which is a platform of civil society organisations (CSOs) working on strategic issues around minerals, and oil and gas extraction in Tanzania. HakiRasilimali is affiliated to Publish What You Pay (PWYP), and is committed to the global transparency agenda. Contact: Coordinator@Hakirasilimali.or.tz

HakiMadini is the Dialogue Convenor for IIED's national action dialogue on artisanal and small-scale mining in Tanzania. HakiMadini is a Tanzanian NGO, whose mission is to strengthen the capacities of artisanal/small scale miners and the local community to engage, participate and benefit from the mineral wealth, as well as to defend and promote basic human rights. Contact: Amani Mhinda, Executive Director (amani.mhinda@hakimadini.org)

MTL Consulting Company Limited is the Dialogue Researcher for IIED's national action dialogue on artisanal and small-scale mining in Tanzania. MTL was formed in 1998 with the aim of providing consulting services to the natural resources sector, specifically the mining and oil and gas sectors.

Contact: Willison Mutagwaba, Managing Director (wmutagwaba@mtlconsulting-tz.com).

Published by IIED, October 2017

Weldegiorgis, F and Buxton, A. 2017. *Informing dialogue on artisanal and small-scale mining in Tanzania: A thematic review of challenges and solutions*. IIED Discussion Paper, IIED, London.

<http://pubs.iied.org/16635IIED>

ISBN 978-1-78431-541-2

Printed on recycled paper with vegetable-based inks.

International Institute for Environment and Development
80-86 Gray's Inn Road, London WC1X 8NH, UK
Tel: +44 (0)20 3463 7399
Fax: +44 (0)20 3514 9055
www.iied.org

 @iied

 www.facebook.com/theIIED

Download more publications at <http://pubs.iied.org>

IIED is a charity registered in England, Charity No.800066 and in Scotland, OSCR Reg No.SC039864 and a company limited by guarantee registered in England No.2188452.

Tanzania’s mining sector dates back several decades, and involves exploitation of various metals (including gold, copper, silver, platinum, tin), gemstones (including diamonds, tanzanite, garnets, sapphires, rubies, emeralds) and industrial minerals (including lime, gypsum, kaolin, salt, sand). Artisanal and small-scale mining (ASM) has long offered Tanzania’s impoverished population an opportunity for employment and income generation. But a range of issues continue to prevent ASM from becoming a profitable and responsible sector. Priority challenges identified through local research and engagement include an unsupportive environment for business; gender discrimination; tensions with large-scale miners and with government; inconsistent and complex land and licensing policies; and conflicting land uses. Through action-focused dialogue, multiple actors need to identify priority actions with clear roles and responsibilities within a roadmap for positive reform. Dialogue will need to address a number of key questions including: how can policymaking and implementation be made more participatory and gender-sensitive? What specific and realistic actions can be designed, what key responsible stakeholders identified, and what effective partnerships fostered to achieve a successful outcome? And what are the reciprocal obligations intrinsic to mutually respectful and beneficial relations across the sector?

Contents

Summary	4	4 Interactions between ASM and LSM – and the role of government	22
Background to the research	7	Framing the challenge	23
		Identifying solutions	23
1 Promoting profitable and productive ASM and linked businesses	8	Join the debate	26
Framing the challenge	9		
Identifying solutions	9	Acronyms	27
2 Supporting women’s roles in ASM	13	Related reading	28
Framing the challenge	14		
Identifying solutions	14	References	29
3 Improving ASM’s interface with other land uses	17	Annex 1: Participants List: Tanzania ASM thematic dialogues	30
Framing the challenge	18		
Identifying solutions	18	Annex 2: Questionnaires: Tanzania ASM thematic dialogues	33

Summary

The importance of pre-dialogue research and engagement

IIED's 'action' dialogue programme for artisanal and small-scale mining (ASM) is informed by a 40-year track record in fostering participatory reform and policy change in mining, forestry and other sectors. It is designed to help national stakeholders identify solutions that promote formalised, rights-based, productive ASM within a more inclusive and responsible mining sector. The programme provides a much-needed forum for multi-stakeholder collaboration and knowledge sharing to promote better governance, greater voice, and secure and productive employment – both across the mining sector and complementary rural livelihoods such as agriculture. The programme strives to make sure that all stakeholders participate, that the process is locally owned, and that discussions focus on solutions. This way, the IIED dialogues can help align ASM with national priorities and sustainable development agendas.

A successful dialogue needs to be preceded by a process of engaging and preparing stakeholders for action-focused dialogue. At pre-dialogue stage, the IIED model begins with a comprehensive scoping of a country's ASM sector and the socio-economic and governance structure in which it exists. We do this through two key components – country dialogue research and an ongoing uni- and bi-stakeholder engagement – in collaboration with a country dialogue researcher and dialogue convenor. These two activities help compile a body of evidence that is further distilled through thematic dialogues focusing on key thematic challenges. The resulting ideas for solutions are debated at the national ASM action dialogue. Also at this stage, we conduct multi-stakeholder mapping corresponding to various thematic areas – with tentative roles scoped to aid the drafting of a roadmap for reform at the national dialogue.

Pre-dialogue discussions offer key sector stakeholders a shared platform to discuss their concerns and perspectives on the main challenges facing the ASM sector. Engagement and research lays the groundwork for identifying solutions that are actionable, with clear roles and responsibilities for multiple stakeholders in the sector. All of this is crucial to support a dialogue that:

- Convenes multiple stakeholders in constructive (solutions-focused/harmonious) discussion
- Identifies clear priorities and next steps within a roadmap for positive reform in the ASM sector
- Gives multiple stakeholders clear roles and responsibilities in that roadmap.

Why is dialogue important in Tanzania's ASM sector?

Mining is a significant and rapidly growing activity in Tanzania, with 1–1.5 million miners directly involved in ASM across the country. While important ASM policy initiatives have been introduced, the sector suffers from significant legal and policy limitations; institutional misalignments and lack of coordination at various horizontal and vertical levels; inconsistent standards and requirements; poor mining practice; and unrealised potential for sustainable development.

The sector faces complex challenges, and emerging government and stakeholders' interests highlight its need for development. A participatory and solution-oriented multi-stakeholder 'action' dialogue is needed, to understand and explore key ASM issues and bring about consensus-based reform in policy and practice.

The time is ripe for dialogue on ASM in Tanzania. Through our pre-dialogue engagements, stakeholders have expressed interest, excitement, readiness, and a willingness to collaborate in identifying and implementing solutions to some of the key challenges.

Progress within the ASM sector in Tanzania is necessary to:

- Maximise the potential of a sector that provides significant employment and the potential for high incomes among an impoverished population, both directly and indirectly
- Reduce conflict between large-scale and small-scale mining, maximise the natural resource potential of Tanzania and improve environmental and social impacts across the sector
- Tackle the problems posed by irresponsible artisanal and small-scale miners, and showcase the many examples of positive and productive ASM.

Moving towards a roadmap for positive reform

IIED, in partnership with HakiRasilimali, ran a series of 'thematic dialogues' in September 2017. During these dialogues, participants from across Tanzania's ASM sector discussed the various challenges it is facing, with a focus on suggesting solutions. Discussions included: how to promote profitable and productive ASM and linked businesses; how to support women's participation in ASM; how to ensure the productive coexistence of ASM with other sectors, like agriculture and other land uses, maximising cross-sectoral dependencies particularly for capital and labour; and how to address the tensions between large-scale and small-scale mining. Participants were tasked with identifying a range of solutions to specific challenges. This paper shares the findings of those discussions and a long list of micro- and macro-level reforms that are needed to progress towards a Tanzanian ASM sector characterised by responsible practices that drives sustainable economic development.

Along with the findings from the Tanzanian ASM dialogue research and uni- and bi-stakeholder engagements, the results of these discussions should inform the Tanzanian ASM action dialogue by helping shape a roadmap for reform in the ASM sector in Tanzania. This should include a shared vision for reform across the multiple stakeholders, and identify clear roles and responsibilities for the next steps. During the dialogue, participants will identify a learning and leadership group (LLG) who will be tasked with progressing the next steps in line with this roadmap.

There is demand for policymakers to look more closely at existing laws; to make sure they are gender-sensitive and don't overlap, leading to contradictory decision making (a breeding ground for corruption). Going forward, policy and decision-making processes need to be more participatory and inclusive of a range of voices, particularly those of women.

Tackling deep-seated discrimination against women in Tanzania, which has long undermined their role in the economy and society, is crucial to improving livelihoods across ASM. Sector-wide champions were identified as being key to promoting gender empowerment and a number of other key messages – such as the importance of increasing income diversification in rural areas and promoting harmonious relations between ASM and large-scale mining (LSM) actors. The LLG should be made up of these sector-wide champions and seek to tackle the problems and prejudices that abound in the media and in public perceptions, undermining trust and collaboration.

Capacity building and skill development are needed in both the public and private sectors. Local government authorities, who play a key role in bridging the gap between central government and local communities, need to be well-informed and educated on the challenges, solutions and their role.

Central government has a hugely important role to play in tackling many of the challenges facing the sector, from law making to ensuring capacity for effective implementation at the ground level. Effective collaboration across government departments and support from civil society organisations and non-governmental organisations will be crucial to ensuring their success.

LSM and ASM operators must too take responsibility for their actions and the role that they have to play in delivering on a shared vision for the sector. Tools of peer-peer learning, awareness raising and knowledge exchange are a cost-effective way to promote better sector practices.

A number of themes and questions underlie the solutions identified through pre-dialogue engagement and research and discussed here. Addressing these questions should help inform the roadmap for reform:

- What actions are needed in the short, medium and long term to ensure better policymaking for the sector?
- How can policymaking be made more participatory and inclusive of local voices, realities and priorities?
- What are the priority areas for government to tackle? How does this align with national development priorities and spending plans?
- What is needed to both support and drive action within the Ministry of Energy and Mines, regional mining offices and zonal mining offices, who are key players in achieving many of the solutions needed for the ASM sector?

- Who are the individuals – across all stakeholder groups – who would make good champions for reform in key areas such as women’s empowerment and participatory decision making?
- How to provide space for continued dialogue and engagement across stakeholder groups?
- How do we ensure good policies are followed by good implementation with multi-stakeholder agreement on roles and responsibilities? What are the reciprocal obligations key to building mutually respectful and beneficial relations in the sector?
- How do we actively address the role of women in the sector and strengthen their voice in formulating gender-sensitive policies and actions? Who are the sector champions and what role can they play in overcoming social and cultural barriers to progress?
- How do we expand and improve on what is working well within public institutions and private sector relationships?

Next steps

Questions including those above were discussed in pre-dialogue uni- and bi-stakeholder engagements and thematic dialogues, resulting in suggested solution areas. These suggested solution areas are set to be distilled at the national ‘action’ dialogue for ASM in Tanzania, to be held in Geita, Tanzania, between 7 and 10 November 2017, bringing together a range of key stakeholder participants. Through the process of dialogue, participants will agree a set of priority actions with clear roles and responsibilities, and draft a roadmap for positive reform in the ASM sector. The outcome of the dialogue will be written up and shared with local, national and international stakeholders (and made available at www.iied.org) as a follow-up to this paper.

Background to the research

In September 2017, IIED collaborated with local partner HakiRasilimali to host four 'thematic dialogues' on ASM in Tanzania. Thematic dialogues help to engage stakeholders in active discussion and identify clear and actionable solutions in advance of the national 'action' dialogue. The national action dialogue on ASM in Tanzania will take place in Geita, Tanzania, from 7 to 10 November 2017. Pre-dialogue engagements are instrumental in ensuring national dialogues are action- and solution-orientated and participants are prepped and ready to engage in forward-facing and constructive dialogue.

In Tanzania, the four themes for pre-dialogue were selected based on stakeholder feedback during scoping work in Arusha and Dar es Salaam in September 2016. The thematic dialogues (which were each one-day workshops) were:

1. Women in ASM (held on 5 September 2017 in Arusha)
2. ASM's interface with agriculture and other land uses: challenges and solutions for sustainable livelihoods (6 September 2017, Arusha)
3. Business case for ASM: opportunities and challenges for growing mining and linked business (11 September 2017, Mwanza)
4. ASM-LSM interface and the role of government (12 September 2017, Mwanza).

In total, 92 stakeholders participated in the thematic dialogues. These included artisanal and small-scale miners; supply and value chain actors, including local entrepreneurs involved in support sectors, such as food vending and equipment supplies and mineral processing and trading; local government leaders; members and leaders of regional and national ASM associations; representatives from national government; civil society organisations (CSOs); media, academics and financial actors (see Annex 1 for the participant list). Following presentations of key thematic challenges and solution-focused discussions in working groups (see Annex 2 for questionnaires used in discussion), participants identified a list of possible solutions to the main challenges, and the relevant stakeholders and partnerships responsible for taking these solutions forward. This paper shares the outcomes of those discussions and should form the basis for further discussion during the national action dialogue.

Promoting profitable and productive ASM and linked businesses

1

A profitable and productive ASM sector, with a multiplier effect on linked businesses, requires access to markets and finance; a well-trained workforce with good equipment and information; and a supportive regulatory environment with clear policies and strong implementation. Although the Tanzanian government has gone some way to providing an improved regulatory and operating environment for ASM, many of these elements are still missing. For successful policymaking and implementation there is a need for: collaboration between institutions in and outside of government; regular and transparent information sharing (of licensing and land policies, geological data and minerals prices); improved knowledge on ASM's realities (including gender relations); and awareness-raising, of both mining and mining-related businesses. ASM needs to be proactive in accessing the help on offer, and meeting regulatory obligations.

Framing the challenge

Artisanal and small-scale miners face numerous challenges within Tanzania's regulatory and operating environment. Miners often have poor access to markets, finance and investment; inadequate training, equipment and data; and operate within a complex regulatory environment. Because of the sector's low barriers to entry, with many miners operating with only limited skills and basic tools, ASM provides a source of income and livelihood for more than a million people in Tanzania, while more than three million benefit indirectly from ASM activities. But these persistent challenges prevent them from achieving maximum profits and productivity. Tackling the business challenges faced by miners will help realise the sector's potential and improve livelihoods and incomes for millions of Tanzanians.

Identifying solutions

Participants identified the following as important for successful mining and linked business: access to capital; access to equipment and geological expertise; business knowledge and technical skills; effective record keeping; access to markets with appropriate mineral prices; constructive political engagement with ASM; access to information; and formalisation.

The Tanzanian government has already gone some way to providing an improved operating and regulatory environment for ASM:

- The Mining Act 2010 allows the Minister of Energy and Mines to set aside dedicated areas for artisanal and small-scale mining. However, the lack of clear differentiation between artisanal and small-scale mining has been cited as creating various challenges. In his 2016/17 budget speech, the Minister of Energy

and Mining announced that, following geological surveys, 11 areas totalling 38,951 hectares had been reserved for ASM (MEM, 2016). Additionally, during the dialogue a participant from the State Mining Corporation (STAMICO) reported that 19 sites dedicated to ASM were in various stages of exploration.

- In 2015, the government introduced a financial grants programme for small-scale miners. The Tanzania Investment Bank (TIB) awarded USD3 million to 111 projects in 2015/16, according to the Minister for Energy and Mining in a speech in May 2016 (MEM, 2016). In his speech the Minister also stated that almost USD3.3 million had been set aside for ASM in 2016/17 (although this has been delayed pending an audit of the previous year's disbursements).
- The government has simplified its licensing procedures through decentralisation and an online application process that reduces the cost and time involved. Many artisanal and small-scale miners now apply for permits using their mobile phones. A government audit resulted in 2,153 licences (72 exploration licences and 2,081 primary mining licences) being cancelled as they were not used for the stated purpose (MEM, 2017). This is important as it ensures that more land is available for genuine applicants.
- Through its industrialisation drive, the government is providing more opportunities for ASM producers to sell their raw materials to manufacturers in Tanzania. By strengthening business linkages, they are creating more opportunities for financing ASM through downstream operators, and in turn ASM income is financing other linked businesses such as agriculture.

It is critical that these policies are designed and implemented effectively. This requires a well-trained and efficient regulator with an understanding of and sensitivity towards local realities, such as the role of women. It requires strong collaboration between various institutions (inside and outside government) to provide training and information, and make it easier for ASM to improve its operations and become profitable. It is also important that these institutions support 'mining-linked businesses' and thereby support local economic development within a thriving mining community.

ASM operators need to be proactive in accessing the help available and striving to meet the regulatory requirements within the sector.

And finally, each of the changes suggested here should be designed and implemented in a gender-sensitive way in order to maximise the impact on the ASM sector as a whole.

Access to finance

Dialogue participants identified access to capital as one of the major bottlenecks to ASM business growth.

It was highlighted that informal financial institutions provide quick and easy access to loans for ASM operatives. Many don't require application forms, verification, collateral or referees and so money can be obtained instantly. In reality, these informal operators are often the only option for financing close to the mining areas.

But because these financial operators often operate informally, they are not subject to regulatory oversight and do not always abide by the law. This leads to myriad problems in regulating ASM activity and in protecting legitimate ASM from unfair practices.

So, what is the solution? Government is the key player here. Informal lending activity needs to be formalised. Government needs to identify, recognise and formalise these financial institutions to provide better regulation of their activity. This requires improved training and implementing procedures for government actors tasked with overseeing these activities.

Participants stressed that government should not impose taxes on these lenders, which risks putting them out of business. Rather they should incentivise improved practices and therefore support what is a key lifeline for ASM activity. This should be done in addition to continuing and effective implementation of the governments' financial grants programme for small-scale miners.

Access to equipment and (geological) expertise

Access to improved and appropriate technology is non-negotiable among ASM stakeholders; especially the type of technology that enables miners to understand the geological nature of the area, as well as access equipment suitable for productivity and environmental good practice. This should accompany efforts to ban or restrict the use of harmful chemicals such as mercury and cyanide.

MEM and the Tanzania Mining Commission (TMC) are in the process of establishing centres of excellence. There is general support for these centres and a recommendation that they provide services for mineral processing, technical training and extension services, exploration of ASM-dedicated areas, and geological data.

ASM stakeholders should be consulted in this process, to ensure that these centres are designed in an inclusive and participatory manner to serve their various purposes: processing, trading, training and information dissemination points.

Within these centres, STAMICO and TMC should invest in further exploration of ASM-dedicated areas. The geological data gathered through exploration should be shared with the miners *before* they begin mining.

Government should fund geologists at the local level – through, for example, extension services – to provide accurate and timely interpretation of the geological data.

At the same time, ASM operators and regional mining offices (RMOs) should be supported through training and resources that can be provided by STAMICO, the College of Engineering and Technology, Vocational Educational and Training Authority (VETA), Mineral Resource Institute (MRI) and regional miners' associations (REMA). This will help ASM operators to be more proactive in accessing and understanding geological data from STAMICO and Geological Survey Tanzania, and better able to carry out successful extraction.

Business knowledge and technical skills

Time and again dialogue participants pointed out that better knowledge and skills in processing and value addition are needed to maximise the market potential of a 'value-added product'. Examples of these skills included gem cutting, shaping and purifying.

The Mineral Resource Institute should be an active player in building the technical capacity of the ASM sector in these areas.

The Small Industries Development Organisations (SIDO) and VETA, in collaboration with the REMAs and the Tanzania Mining Commission, could support new businesses by providing technical skills and training through business incubation programmes.

Record keeping

To engage financial institutions and investors, miners need to be able to document and present key information on, for example, who owns the means of production, how much do they produce, how much *can* they produce, and for how long.

Miners' associations, together with non-governmental organisations (NGOs), community-based organisations (CBOs) and civil society organisations (CSOs) should provide basic training to ASM operators on record keeping.

At the same time, ASM operators should recognise the importance of record keeping to their business growth and, where they have the means, invest in training for themselves.

Access to markets and appropriate mineral prices

Most artisanal and small-scale miners in Tanzania sell to local traders, who usually operate informally in the immediate area. Producers rarely get a fair price for their products. Regulation is weak and there is little transparency on the price of minerals and gemstones.

To tackle this, government should provide guidance on the prices for minerals and gems. The Bank of Tanzania can provide the Ministry of Energy and Mines with daily prices in line with international markets. MEM could share these with miners through notice boards at all regional mining offices and local government offices at the district and village levels. This guiding price should then be used by traders and known to miners.

Buying centres and auction centres can help promote value addition and access to markets by acting as selling points for people who want to trade in different minerals. These centres can also be a source of key information on the quantity, quality and value of minerals being traded at a given period of time. Buying centres at mine sites could provide easy access to market by ensuring reliable prices, and by cutting out the middlemen, who can exercise unfair control over prices at mine level.

ASM stakeholders should be consulted in the design and implementation of these buying and auction centres for an optimal service.

Fairtrade certification can help producers and operators link up with international markets, produce responsibly, and earn more through access to Fairtrade standard compliance and markets, which offer a 'fair price' and a development premium, with a greater proportion of the 'final price' given to the producer. This system rewards producers for investing in better operating, environmental and social practices.

Fairtrade Africa, in collaboration with partners such as Solidaridad, regional governments and REMAs needs to work with the full range of actors in the ASM sector to increase knowledge on certification and its benefits, while continuing to build a market for certified products.

Special mining exhibitions can showcase the work and products of ASM, promoting marketability. These events can also help to project a positive image of the sector and incentivise more responsible ASM practices.

MEM, STAMICO and TMC can help to organise miners' associations and miners themselves to prepare for and participate in these events. These events could be held on an annual or biennial basis.

A minerals advisory board could help to improve regulation and its enforcement, particularly for gemstones such as zinnon, ruby, sapphire and tanzanite, by bridging the gap between ASM operators and policymakers. This advisory board needs to have representatives from various relevant government agencies, ASM, LSM, and CSOs to help with legalisation, formalisation and business development processes.

Better informed political body

Political biases and misinformation have led to controversy, unrealistic expectations and failed investment in the ASM sector. This has undermined the government's ability to effectively promote and advance the ASM sector through better regulation and external investment.

How can we ensure government is better informed?

MEM and TMC should create a multi-disciplinary technical team to advise the government on ASM. This team should include individuals with ASM experience across various minerals, mineral trading, and mining finance; geologists, lawyers and environmentalists. This team is distinct from the advisory board mentioned earlier; it would sit within MEM to generate and ensure accurate, inclusive and comprehensive information flow to inform policy.

Formalised ASM sector

Formalising ASM is necessary for levying taxes; effectively managing the provision of mining licences and competing land uses; promoting environmental protection; the wellbeing of workers; and ensuring streamlined support mechanisms for productive and responsible mining practice.

REMA, and other bodies such as the Tanzania Revenue Authority and labour unions should provide training to ASM on how to comply with the regulations for small-scale mining operations. At the same time, they should make clear the benefits of formalising their activities, such as access to training, equipment, grants and markets.

Artisanal and small-scale miners should be proactive in formalising their activities and engage in the training offered.

Mining-linked businesses

“During a gold rush you will be surprised to see a lot of ASM and even more of the people engaged in other service delivery ventures. You will find food vendors, beauty salons and many others.” (Dialogue participant)

Mining can offer a significant boost to local economies by providing business to local traders of goods and services. For example, in the Central African Republic as much as USD144.7 million is injected into the economy from informal artisanal diamond mining and spin-off economic enterprises (World Bank, 2008). In Mongolia, an estimated USD505 million is spent each year in local economies near mining activities (ibid).

To maximise the potential for ASM to stimulate growth in the local economy, we first need to identify ‘mining-linked businesses’ and their infrastructure needs. Second, business owners may need training in writing business plans to access finance. And finally, the government and business associations need to actively support business development and competition through business forums, trade shows, and skills development.

1. Identifying mining-linked businesses and their infrastructure needs

Mining-linked businesses are many and varied. They range from manufacturers of equipment and tools who export their products regionally, to street vendors who sell food to workers on site. Although identifying these multiple businesses and their links to ASM can be a challenge, this information can help show mining’s ability to support and grow local economies. This improved understanding of ASM and its positive impacts will also help support politicians to be more encouraging of the sector.

Participants asked the MEM to carry out a survey to map the linkages between ASM and local businesses providing services and goods to the ASM sector – as well as other businesses benefiting from ASM, such as in the farming and tourism sectors. It is important that this survey is gender-sensitive to inform policymaking (see Section 2 below).

Good and reliable infrastructure – including roads, electricity and water supply – are crucial to successful business operations.

The MEM should work with the relevant ministries (including the Ministries of Works, Transport and Communications; Lands, Housing and Human Settlement; Water and Irrigation; Industries and Trade) and local government authorities (LGAs) to assess the current status of infrastructure in mining areas and then create a plan for investment and improvement where it is needed.

2. Formulating business plans

Well-structured and fully documented business plans can help business owners secure finance through grants, basket funding or loans. But few business owners understand the importance of a business plan or have the skills to write one.

Business associations should work with financial institutions and business schools, such as the College of Business Education, to teach business owners how to design and maintain a proper business plan and demonstrate its advantages.

3. Setting up business platforms

Forums that bring business leaders together can help spur competition, innovation and business improvement. Creating peer networks among businesses can promote joint ventures, which capitalise on economies of scale and increase market share. Improved information sharing through multi-sector business platforms can also improve access to goods, services, training and finance for these business operators.

STAMICO, the National Economic Empowerment Council (NEEC) and MEM should collaborate to create forums and platforms for business owners to come together.

The NEEC should initiate training that is tailor-made for businesses operating in mining communities, with the help of NGOs and CSOs specialising in entrepreneurship and economic empowerment.

Financial institutions including microfinance institutions, cooperative banks and small financial institutions (such as savings and credit cooperatives and village community banks) should be better educated on the market potential and risks of businesses operating in mining communities.

Supporting women's roles in ASM

2

Women make up more than a quarter of Tanzania's artisanal and small-scale miners (Dreschler, 2001). But this substantial part of the productive workforce is regularly underpaid, undervalued and abused. Poor access to capital, stable markets and fair treatment prevents women from effectively contributing to the economy and society. Many of the solutions identified in Section 1 (improving Tanzania's business operating environment) and in Section 3 below (ASM's interface with other land uses) are replicated here. Designed and implemented in a gender-sensitive way, the government can maximise its investment in the ASM sector and help to tackle the structural inequalities that are preventing women from achieving their full potential. Sector-wide champions for gender equality, with better knowledge and information, will need to play a critical role in changing cultural and societal attitudes towards women.

Framing the challenge

In Tanzanian society men hold primary power. They dominate in political leadership, moral authority, social privilege and property ownership. Men typically speak for women and make decisions in the family. Male elders decide community matters.

Despite women's active roles in mining processing and the delivery of mining services (Armah *et al.*, 2016), they are not allowed to own land or make business decisions. These socio-cultural realities prevent women from benefitting from their active participation in mining activities. Without land ownership, women are unable to provide the collateral needed for finance.

Sexual abuse and harassment from traders is common and obstructs women's ability to access stable markets and secure a fair price for their product. Within the community, sexual abuse and discrimination has a significantly negative impact on the health, safety and security of the women, children and men living there.

Mjomba Hussein, known as 'Pili Hussein' (Uncle Hussein), is a prominent Tanzanian woman in ASM in Mirerani. Although she has recently received recognition for her prestigious role in ASM, she continues to face discrimination:

"In those days I had to disguise myself as a man to access a tanzanite mining site in Mirerani. I faced, and still face, a lot of humiliation and discrimination. But I do not lose hope, although I know society has a negative attitude towards me." (Mjomba Hussein)

Identifying solutions

A gender-sensitive roadmap for reform in the ASM sector needs to tackle 1) the written laws and policies that shape the sector and its regulation; and 2) the cultural practices and attitudes that undermine society's recognition of women and their roles.

Many of the initiatives identified in Section 1, on promoting profitable and productive ASM businesses, and Section 3, on improving ASM's interface with other land uses, need to be designed and implemented in a gender-sensitive way. This will help implementing actors to maximise their investment by incorporating this significant segment of the ASM population. It will also help to mainstream gender sensitivity within policymaking and implementation.

At the same time, the government should implement policies of positive discrimination to specifically favour women. These policies should eradicate the obstacles preventing women from accessing land, mining licences, finance, geological data, information, training and decision-making processes.

Finally, sector champions have an important role to play in targeting discrimination in Tanzanian society, by actively empowering women, and showcasing their existing and potential contribution to society – politically, economically and socially.

Legal framework and institutional reforms

Discrimination against women is rooted in Tanzanian culture and therefore endemic in policymaking, policy implementation, education and business. A broad, multi-actor response across the public and private sector is needed to overcome these challenges. A gender-sensitive revision of policies should prioritise reforms to land ownership and access to mining licences. Political leaders, miners' associations and educators need to champion empowerment and equal rights for women.

Zonal and national women miners' associations (such as the Tanzanian Women Miners' Association (TAWOMA), Mirerani Women's Group and the Federation of Miners' Associations Tanzania (FEMATA) need to actively engage policymakers in the early stages of policy design. This should begin with an immediate gender review of three key policies:

1. National Land Act No. 5 of 1999
2. Village Act No. 14 of 1999
3. Mining Act of 2010.

These sector champions should engage with policymakers and the media to advocate for revising laws and discouraging the precedence given to customary laws.

Parliamentary committees, MEM and RMOs also have a role to play as champions of equal opportunities for women. These political leaders should promote positive discrimination for women in accessing start-up loans and grants, facilitating access to geological data, initiating gender-sensitive mining programmes and promoting gender-sensitive laws.

Miners' associations should also collaborate with education providers (primary, secondary, tertiary and vocational) to train and motivate young women to work in the mining sector. This will drive the growth of a more vibrant, well-educated and empowered generation of women in mining.

Access to financial services

The government and financial institutions need to enforce positive discrimination policies that allow and incentivise women to access finance. This could mean lower subscription fees, better interest rates and repayment terms, and less bureaucracy. MEM and RMOs could help set up a targeted financial support programme through cooperative banks or a financial institution focused on the mining sector, similar to those in the agriculture sector, which could manage grants for women.

Reforms to the law on land ownership and mining licences will help by providing women with the collateral needed to access loans.

Access to stable markets

New mining centres should be set up that are gender-sensitive and mindful of the sociocultural restrictions faced by women. Women benefit when mining centres can be used not only for value addition, but also as selling points and as libraries of information about minerals. Women are often confined to areas near their homes, which restrict their market opportunities and ability to access to information. As such, mining centres should be located close to rural communities.

LGAs, with support from central government, MEM, RMOs and development partners, should design and establish mining centres in a gender-sensitive way.

Private actors and CSOs can also play a role in ensuring women are engaged in knowledge-sharing initiatives.

Opportunities in mining-linked activities

Women in mining communities are often involved in providing goods and services to miners. This includes food vending, ore transportation and producing equipment locally. Some women are running these businesses alongside their own mines.

Many of the solutions identified here are mirrored in Section 1 above. To maximise efficiencies, those solutions should be designed and implemented in a gender-sensitive way.

The mapping exercise proposed for MEM to undertake, mapping the various businesses linked to mining, should identify the business areas that women are more likely to engage and prosper in. MEM should work with the Ministry of Community Development, Gender and Children, women's agencies such as UN Women, the Tanzania Gender Networking Programme (TGNP), the Women's Legal Aid Centre and women's miners' associations (such as TAWOMA) to make the most of the gender expertise available.

Central and local government should implement policies and initiatives that incentivise women as business owners in the mining communities – through positive discrimination in regulation, finance and access to markets.

Knowledge-sharing partnerships between NEEC and education providers should promote information on entrepreneurship, diversification and investment in women. MEM could help coordinate miner's associations to facilitate peer-level learning at the regional or zonal levels.

Dialogue and multi-stakeholder forums at the regional and national level will help decision makers understand how to effectively mainstream gender in the sector. These forums should engage the gender experts (such as UN Women, TGNP and TAWOMA) as well as 'champions' in media, education, business, local government authorities and the police who are key to advocating and promoting reform across the sector.

Women in decision making

Tanzania has witnessed an impressive surge of women in positions of power over the last two decades, with a growing number of highly educated female scholars and female parliamentarians and the first-ever female vice-president in the country's history. This has been driven in part by more awareness among women of the need to stand up and defend their rights; and in part by

government policies, which have supported women's participation (such as women-only seats in parliament). But more can be done to strengthen women's role in decision making.

The Tanzania Mining Commission should guarantee better representation of women in the council at both regional and national level. This could be done with the help of regional and zonal women's associations.

Female artisanal and small-scale miners and businesswomen should be proactive in putting themselves forward for leadership positions in their different associations. The associations should build capacity and knowledge among female (and male) leaders in the sector to help them become more effective and sustainable.

There is a need for women's groups – like cooperative societies, NGOs and CBOs – to be organised and function well, and for these groups to be empowered. TAWOMA should have good representation of female miners from different regions and with different mining experience, including those with knowledge of gold mining, gemstones and construction materials. This will help promote inclusiveness among its members. It will also strengthen and broaden TAWOMA's mandate in high-level negotiations and policy influencing.

Improving ASM's interface with other land uses

3

In rural Tanzania, miners often work alongside farmers, fishers and conservationists. Many people work seasonally and cross over the different sectors. While mining is often a significant source of income for these rural households, it can have a negative impact on the land and its users. Laws governing natural resources can overlap and create unnecessary bureaucracy – a breeding ground for corruption. It is important that integrated land-use plans are developed by the community and used to minimise conflict and maximise sustainable and profitable use of natural resources. Effective land-use planning needs to be participatory, inclusive, well-informed and responsive to a changing policy environment. Cross-sector collaboration and transparent information sharing is necessary for effective decision making.

Framing the challenge

ASM often takes place alongside other rural livelihoods. Many rural households work seasonally, moving between mining, agricultural and other rural activities throughout the year (Hilson, 2016). Land used – or wanted for use – by miners may be in demand or in use by farmers, conservationists, foresters and fishers. Without careful and collaborative policymaking and implementation, conflicts emerge as people compete for land, labour and other natural resources. This competition intensifies when populations increase and there are greater demands on the land. And once finished, mining can leave significant and long-lasting scars on the land and its inhabitants.

In Tanzania, as in many countries, the laws governing different land uses often overlap. There are some laws that apply to all land-based sectors such as Land Act No. 5 (1999), Urban Planning Act (2007), Land Use Planning Act (2007) and Village Act (1999). And then there are laws for specific sectors, which are applied in parallel to these land laws. For miners, this includes the Mining Act 2010.

“Truth be told, there is often a contradiction in the implementation and execution of these laws and the relevant policies. This phenomenon has also been observed when it comes to obtaining mining licences as well as carrying out mining operations.”
(Dialogue participant)

In addition to land, labour dynamics and mobility are prevalent between sectors – particularly ASM and agriculture – affecting the sustainable productivity of either sector. Furthermore, there is a lack of long-term planning and understanding of the relative sectoral importance, leading to failures in leveraging opportunity from income earned and skills learnt.

Overlapping laws with multiple decision makers is a challenge for those tasked with implementing the law, and a breeding ground for corruption. For example, the Mineral Policy of 2009 requires an ASM operator to get an operation permit from the National Environment Management Council (NEMC) and permission for clearance from authorities such as the Ministry of National Resources and Tourism. Without effective collaboration between these authorities, this process ends up with excessive bureaucracy and contradictory decisions. Excessive bureaucracy wastes time and money, and can lead to corruption, undermining effective governance.

Poor information sharing between different actors can lead to poor decision making with negative impacts on productivity, communities and the environment. This has a negative impact not only on ASM, but also on other rural actors and the relations between different land uses.

“Due to lack of information, there is a risk of invasion and environment destruction by ASM and/or LSM. This was experienced in Chunya on the River Amani where artisans invaded the river banks upon hearing that there is gold.”
(Dialogue participant)

Identifying solutions

Rural development works best when it is initiated and designed at the local level, with clear community ownership of the long-term plans and impacts.

Land-use planning should be driven and owned by the community, to ensure that it is designed effectively and sustainable in the long term.

It should be dynamic – a ‘working document’ responsive to changing government and development priorities. And it should take a short and long-term view of activities – putting in place investment, environmental and social plans for when mining is active as well as when it is finished.

Land-use plans should be based on a range of information from the community and experts (such as geologists and lawyers) on the land’s potential uses.

Effective governance of land uses requires strong collaboration between sectors and their governing bodies. Better information sharing and transparent decision making will help tackle corruption at all levels of government.

To build relationships and facilitate information sharing across sectors, training and skills development should take a cross-sector approach – identifying areas where skills and knowledge can be taught across different livelihood actors.

There are examples of where mining is working successfully alongside farming in regions such as Geita and Tanga. In these cases, ASM operators use the income generated from one sector to support the other. In Mererani, in the Manyara region, women miners own small-scale farms and vegetable gardens to provide food for their families and sell the surplus. These positive examples should be shared and supported across the sector.

Mining is the second largest sector after agriculture in many African countries – providing legitimate employment and significant revenue generation. It is important to recognise this positive contribution, while mitigating its potentially damaging social and environmental impacts across land uses.

Greater transparency and information sharing

Poor information sharing between government departments with different roles in land planning has led to contradictory decision making, bureaucracy and encroachment by some users onto land assigned to others. An underlying challenge is that important data, such as geological surveys and minerals studies, is not made public; or only made public through electronic means that are not accessible to all.

Dialogue participants pushed for greater transparency and sharing of key information across government departments with responsibility for decision making on natural resource use.

Support for community-based land-use planning

Effective land-use planning should include knowledge and opinions from a wide range of sources – including communities (ensuring women are involved in sharing information and making decisions), government and 'experts' (such as geologists and lawyers). It should be dynamic and responsive to changes in government and development priorities. Furthermore, land-use planning should identify gaps where investment is needed in social services and utility provision to mining communities.

LGAs, village councils and the relevant government departments should use participatory rural appraisal (PRA) to develop and properly implement community-based land use plans. This approach is often used by organisations to promote sustainable and inclusive development in land-use planning. It is useful for bringing together the knowledge and opinions of people across rural communities.

As women are often excluded from accessing adequate land for ASM and agriculture, dialogue participants proposed that the Ministry of Lands, Housing and Urban Development and the President's Office: Regional Administration and Local Government (TAMISEMI) take responsibility for ensuring gender policies are implemented at local levels in land-use planning.

Participatory approaches can help collaborative decision making between government units involved in allocating or reallocating village land and boundaries.

Politicians should support communities by advocating for a diverse range of income-generating activities and encouraging investment in line with community-based land-use plans. This could be initiated by an inter-sectoral committee under TAMISEMI, the Prime Minister's Office and the Ministry of Land. LGAs will be responsible for supervising the implementation of these policies.

Better laws for better land use

Participants suggested that the laws governing mining and forest reserves need to be harmonised. This may help set an example of how clearly delineated land uses should be respected, particularly where they impact on conservation areas.

The National Environment Management Council, TMC, RMOs and TAMISEMI should ensure environmental protection plans are shared with LGAs and effectively enforced.

Women should also be encouraged and supported to engage in developing policies and bylaws that support female ownership of land. Women's agencies, such as the Ministry of Community Development, Gender and Children, the gender justice department, gender desks at district levels and gender desks in police stations, should provide more opportunities for women to own land as a means of production.

Bringing up the bottom

ASM is a complex sector with actors operating across a spectrum of formality, skill, knowledge and awareness. 'Gold rushes' often see an influx of low-skilled, informal actors with minimal awareness of their impacts on communities and the environment. This contrasts with, and undermines, those miners who are working hard to operate within the parameters of the law, abide by environmental and social regulations, and have good relations with local communities.

MEM, NEMC and TMC should provide 'sensitisation courses' for non-registered and informal ASM operators on environmental protection and peaceful coexistence with other sectors. This will help bridge the gap

between operators in different sectors and build mutual respect. These training programmes could also be offered to registered or formal and semi-formal miners as 'refresher courses'.

"Previously we perceived ASM operators as enemies of the environment. But currently there is willingness from artisanal miners to learn more about environmental protection." (Government official from NEMC)

Effective dispute resolution

Conflicts arising over land use are to some extent inevitable. Accidents may happen that have a negative impact on surrounding livelihoods. It is therefore important to have transparent and fair structures of dispute resolution in place.

Judicial bodies and LGAs should work with the Prevention and Combating of Corruption Bureau to make sure that disputes are resolved without bias, corruption or solicitation.

Economic policies on reinvestment and diversification

The government should take both a long-term view and a macro view in managing the country's mineral reserves.

Government should reinvest revenues from minerals for the long-term development of an area. This should include investment in other livelihoods and infrastructure that benefits a wide range of sectors. Government should require cross-departmental collaboration to identify areas for long-term investment. This should include the Ministries of Agriculture, Water and Irrigation, Energy and Mining, Labour, and the LGAs. This decision making should be participatory and inclusive of local views and community-based plans.

The government should enact laws allowing the Bank of Tanzania to store precious minerals such as gold, diamonds and tanzanite to strengthen its ability to trade in international markets.

Revenue collection should take place at the local level to ensure better oversight and understanding of how and where minerals revenues are generated.

"The truth of the matter is that the government still loses a lot of revenue from untamed localised trading, which happens as soon as the mineral is out of the pit." (Small-scale miners from Geita)

Government needs to strengthen the capacity and knowledge of revenue offices by authorising LGAs to collect revenues at the local level. These should be sited close to the mining area and officers should be well informed.

Improving skills and technology across sectors

For rural communities to prosper it is important to advance skills and technology across sectors and actors. Programmes on local value addition, entrepreneurship, better business management, and improving social and environmental impacts should be inclusive; and, where possible, cross sectors to share knowledge, skills and responsibility for sustainable development. Technologies and processes used in mining should be improved to minimise their impacts on other rural activities.

The training programmes offered by educators and financial institutions on business skills and record keeping identified in Section 1 above, for example, should be available to farmers, fishers and foresters as well as miners. All actors should be educated on safely operating equipment and machinery within their activities.

The National Economic Empowerment Council has a mandate to promote small economic programmes through funding mechanisms such as the Mwananchi Empowerment Fund, which provides soft loans to organised groups. The NEEC should be encouraged to provide more support to ASM – to acquire technologies for both mining and farming, and ensure this is done in a gender-sensitive way. For this to happen, ASM needs to be better organised and register in groups, similar to village community banks and savings and credit cooperatives.

The MEM, Chamber of Mines and educators (such as VETA, SIDO and the College of Engineering and Technology) should work together to advance ASM knowledge on digging and processing ore, to minimise its environmental impacts and improve safety for people working across all sectors in the vicinity. They could run short courses near mining sites or through 'training of trainer' programmes.

Dialogue participants also suggested that CSOs and educators, such as Sokoine University of Agriculture, could train miners who are also working as farmers to effectively integrate their activities using modern methods for organic farming, agribusiness development and value addition. The Ministry of Agriculture could support these initiatives by supplying agricultural inputs and soft-subsidised loans to these individuals.

Finally, miners and farmers should have insurance in the event of a natural disaster or accident. Regional ASM associations, in collaboration with national umbrella bodies such as FEMATA, TAWOMA and RMOs, should run training sessions with both public and private insurance providers, such as the National Health Insurance Fund.

Addressing food insecurity

Mining can help improve food security for workers and communities if the linkages between mining and farming are properly understood. This would require miners to know which land is arable, and then use that land for farming or invest elsewhere for food reserves.

LGA extension officers and government agencies, such as the National Food Reserve and Ministry of Agriculture, Livestock and Fisheries, should organise public seminars and outreach programmes encouraging and inspiring miners to engage in medium and small-scale farming.

National forums, such as the yearly '8-8 celebrations' (which culminate on 8 August at Tanzania's National Farmers' Day), could be used as a platform to raise awareness of successful integration of ASM, farming and other rural activities.

Regional and zonal miners' associations should encourage miners to reinvest and diversify their incomes. This could also be done in conjunction with Farmers' Day each year – an opportunity for miners to learn about the commercial values of agricultural produce and be inspired to plan for the long term whether or not to diversify their mining income in farming businesses.

Interactions between ASM and LSM – and the role of government

4

Tensions between different scales of mining exist in Tanzania as they do in many other mining countries. On the face of it these tensions are driven by competition for mineral resources. Underlying this, however, is often a deep-seated mistrust caused by poor communication and ineffective governance. Tackling these tensions requires relationships to be rebuilt based on mutual respect, understanding, shared goals and clearly defined roles and responsibilities. The government plays a key role in setting the stage for improved relations between large-scale and artisanal and small-scale mining. All players should engage in platforms for dialogue, information sharing and investment in common goals. Positive and inclusive action is necessary to maximise the sector's contribution to livelihoods and economic development.

Framing the challenge

Interactions between large-scale mining companies and artisanal and small-scale mining have a long history in Tanzania, as in many mining countries. Competition for mineral resources often brings the different scales of mining into contact in the same areas. LSM and ASM are governed by the same regulatory bodies, and many of the laws applying to ASM also apply to LSM. Despite these similarities, the differences in scale and capability often make for an unhappy pairing.

Where ASM and LSM operate side by side, poor communication can lead to conflicts. LSM accuses ASM of invading their land, harming the environment and creating security risks. ASM accuses LSM of taking their land, being unfairly favoured by government and polluting the waterways. The relative sophistication of LSM operations and mine sites sit in stark contrast to the poverty and deprivation of their neighbouring mining communities. This can lead to resentment. Without effective grievance mechanisms and platforms for dialogue, these tensions lead to conflict.

Informal ASM presents additional challenges. Informal ASM often encroaches onto LSM or community land – drawn by the prospect of mineral wealth, with little awareness of the legal requirements for mining. These informal actors are not only trespassers but often cause environmental and social damage as they conflict with local communities and don't meet the requirements for responsible mining. Forced evictions can lead to violence and negative publicity on all sides for ASM, LSM and government.

Identifying solutions

The basis for improved relations between ASM, LSM and government should be commitment to shared goals, mutual respect, and clearly agreed roles and responsibilities.

All players should work together to identify a shared vision for the sector that is inclusive of all scales of mining. This can be supported through knowledge-sharing programmes, awareness-raising activities and platforms for dialogue. Honest and open communications between all players should fairly recognise the capabilities and limitations of all players and realistically manage expectations. Reconciliation talks can address specific grievances within the community and be mediated by local organisations and government. The media also has a key role to play in promoting messages of positive and harmonious relations. Identifying opportunities for shared implementation and design can help to build relationships between actors and break down both real and imaginary barriers.

Individually, government, LSM and ASM each have responsibility for improving the sector and their role in it. Identifying the respective roles and responsibilities of different actors, and then providing support and collaboration across the sector, is key to success.

The role of government

Dialogue participants identified a number of roles that government can play to promote an improved and collaborative relationship between ASM and LSM.

Government could host 'sensitisation seminars' (public talks) on the rights, responsibilities and obligations of ASM. This could include the importance of operating legally, the need to observe social and environmental regulations, proper land use under the Land Act, and the need to observe human rights and labour rights with regard to, for example, child labour, and so on. MEM, the Ministry of Lands and Human Settlements, Occupational Safety and Health Authority and the National Environmental Management Council should all engage in providing these services. They could be supported by development actors such as UNICEF, the International Labour Organization, Tanzania Law Society, the UN Environment Programme, and academic and research institutions.

Government could act as a mediator in conflicts between ASM and LSM. In cases of conflict over land, government should look to provide ASM with its own dedicated areas of clear and proven mineral wealth. Where possible, government should encourage LSM to release areas of its concession suitable for small scale mining to miners who are able to operate in accordance with regulations.

When awarding mineral licences to LSM, two-way information flow between national and local government is critical. MEM should inform the relevant LGAs where LSM licences have been awarded. This will allow LGAs to provide the necessary information to communities residing or working in the area, prepare mechanisms for valuation and compensation, and put in place effective grievance mechanisms.

The LGA should feed back information to MEM and large-scale miners on the nature of activities and communities operating within the area, so LSM can be prepared and responsive to their needs.

MEM should be proactive in collaborating with ministers on social and environmental affairs to ensure licences are awarded with awareness and sensitivity of the social and environmental realities, as well as any community development plans in place.

Actors central to making all of this happen are MEM, LGAs, RMOs and the Geological Survey of Tanzania. They could also be supported by the REMAs and other miners' associations such as KIWATAMITA, FEMATA and TAWOMA.

Government also needs to ensure its relevant authorities are operating effectively, with the necessary infrastructure and training, and free of corruption. This should include the Tanzania Revenue Authority, the police and the courts.

The role of local government authorities

Local government authorities occupy an important place between central government and what is happening on the ground. Equipped with the skills and knowledge to better understand and communicate with large and small-scale miners, LGAs could play a significant role in promoting a more positive operating and living environment.

LGAs should put in place mechanisms to register and identify ASM operators in their areas. This will help LGAs to monitor the nature and location of ASM activity and prevent invasions of LSM land. This challenging task will require investment and support from TMC, MEM and the various miners' associations.

LGAs should improve their relationship and understanding of ASM by making efforts to reach out and engage with the sector. They should provide opportunities for ASM to showcase their work and products in, for example, at the trade fairs on 7 July and the National Farmers Day fairs on 8 August.

LGAs can help promote communication and understanding between LSM and ASM by hosting social tournaments, local trade fairs, bonanzas and other social events. These events can target specific challenges or opportunities for sharing knowledge.

MEM, TAMISEMI and relevant NGOs should build the capacity of LGAs to intervene on behalf of central government to prevent or allay conflicts. This should include improving their knowledge and information on the respective roles and responsibilities of LSM and ASM, the relevant legislation, conflict resolution mechanisms and effective communication. STAMICO, MRI and the Local Government Training Institute Hombolo - Dodoma, among others, could provide technical support and advice in these efforts.

The role of artisanal and small-scale miners

Artisanal and small-scale miners must take responsibility and be proactive in operating within the confines of the law and respecting the leadership of government and their associations.

ASM miners need to recognise their role as environmental stewards and actively protect natural resources (such as wild animals, forests, mountains, waterways and other unique and important features of the land). Peer-to-peer ASM education programmes can help raise awareness on the importance of environmental protection. LGAs and MEM can work with ASM to develop environmental impact assessments, environmental protection plans and land rehabilitation programmes. Various organisations can support ASM and ensure compliance with international standards, including the NEMC, the chief government chemist, the UN Environment Programme, Hakimadini and HakiRasilimali.

ASM miners should recognise its social responsibility to 'give back' to its communities. This may be in the form of charity donations, actions or 'basket funding' in collaboration with LSM to address priority issues within the community. It could also include improvements to social services, infrastructure (such as building roads and schools) or providing access to utilities (such as water and electricity).

The role of large-scale miners

Despite the huge wealth generated through large-scale mining, communities in the local area often continue to live in poverty with poor infrastructure, water supply, education and health care. This is the case in many of the areas surrounding Geita, Mererani and Nyamongo.

Experience has shown that abiding by international standards and codes of ethics can help increase the local benefits from LSM and spur action on positive engagement between ASM and LSM. Government should ensure that these standards and codes are binding within mining contracts.

Corporate social responsibility (CSR) initiatives can help build relations between the mining company

and the community. LSM should implement training programmes that provide technological and technical support to ASM. These programmes could be designed together with ASM representatives to identify areas for knowledge exchange.

A successful example of shared action is the ASM project being developed in Rwangasa through the Multi Stakeholder Partnership Initiative between the government, World Bank, Geita Gold Mine, Acacia Mining and FEMATA. A similar project is being planned for Tarime and the North Mara Mine. These projects can provide examples of success that should be replicated in other areas and inspire other large-scale mining companies.

Join the debate

Between 7 and 10 November 2017, IIED will host a national ‘action’ dialogue for ASM in collaboration with HakiMadini, as Country Dialogue Convenor, and MTL Consulting, as Country Dialogue Researcher.

Based on discussions in the thematic dialogues, and the subsequent analysis presented here, participants in the national dialogue will consider the following discussion framework in moving forward with a roadmap for reform. The dialogue will take stock of key suggested solutions for each priority area as informed by background research, uni- and bi-stakeholder engagements and thematic dialogues. The aim will be to refine these

suggested solutions arriving at a draft roadmap that contains an actionable and bankable agenda for reform. The roles and responsibilities of key stakeholders will be identified and a learning and leadership group will be selected to champion the roadmap in the post-dialogue stage.

Crucial to the success of dialogue is that participants move beyond a ‘talk shop’ and identify a list of priority actions with clear roles and responsibilities for all actors involved. In this way, a roadmap for positive reform of the sector can be agreed.

SOLUTION AREAS:	<ol style="list-style-type: none"> 1. Policies on and enforcement of formalisation, harmonised coexistence, access to land and licenses 2. Access to finance 3. Access to technology and equipment; and environmental health and safety-related solutions 4. Access to markets 5. 5.1. Upgrading ASM to a productive sector 5.2. ASM linkages with other sectors and business multiplier effect 			
GOALS				
SUGGESTED SOLUTIONS (PRE-DIALOGUE)				
	Policy and regulation	Knowledge/ research	Engagement/ communication	Skills training
ACTIONABLE AND BANKABLE SOLUTIONS (DIALOGUE)				
STAKEHOLDER ROLES (DIALOGUE)				

Acronyms

ASM	artisanal and small-scale mining
CBO	community-based organisations
CSO	civil society organisation
CSR	corporate social responsibility
FEMATA	Federation of Miners' Associations Tanzania
LGA	local government authority
LLG	learning and leadership group
LSM	large-scale mining
MEM	Ministry of Energy and Mines
MRI	Tanzania Mineral Resources Institute
NEEC	National Economic Empowerment Council
NEMC	National Environment Management Council
NGO	non-governmental organisation
REMA	Regional mining association
RMO	Regional mining office
SIDO	Small Industries Development Organisation
STAMICO	State Mining Corporation
TAMISEMI	President's Office: Regional Administration and Local Government
TAWOMA	Tanzanian Women Miners' Association
TGWP	Tanzania Gender Networking Programme
TIB	Tanzania Investment Bank
TMC	Tanzania Mining Commission
VETA	Vocational and Education Training Authority

Related reading

Bass, S, Flores-Zavala, G and Weldegiorgis, F (2016). ASM dialogue programme: IIED scoping mission in Tanzania. <http://pubs.iied.org/G04119/>

Flores-Zavala, G (26 September 2017) Small ventures, big hopes (Stories of change in Tanzanian ASM) <https://tinyurl.com/y7rrb8jc>

IIED (2017) 'The time is right' for dialogue about sustainable ASM in Tanzania. www.iied.org/time-right-for-dialogue-about-sustainable-asm-tanzania

IIED (2015) Finding common ground: the human story of gold mining. <http://pubs.iied.org/pdfs/16606IIED.pdf>

IIED (2015) Kutafuta usawa kwa kila mtu: Hali ya ubinadamu kuhusu uchimbaji madini ya dhahabu. <http://pubs.iied.org/16606KIIED/>

IIED (2015) Gold mining: the search for common ground. <https://social.shorthand.com/IIED/nCUEFHSXq/gold-mining-the-search-for-common-ground>

References

Armah, F A, Boamah, S A, Quansah, R, Obiri, S and Luginaah, I (2016) Working conditions of male and female artisanal and small-scale goldminers in Ghana: examining existing disparities. *The Extractive Industries and Society* 3(2) 464–474.

Dreschler, B (2001) Small-scale mining and sustainable development within the SADC region. IIED and WBCSD. <https://pdfs.semanticscholar.org/d2a1/382d6f524da0c3e9ba142406c92dd33cf527.pdf>

Hilson, G (2016) Farming, small-scale mining and rural livelihoods in sub-Saharan Africa: A critical overview. *Extractive Industries and Society* 3(2) 547–563.

MEM (2017) Financial budgetary presentation.

MEM (2016) Budget Speech of the Minister of Energy and Minerals. 19 May 2016.

World Bank (2008) Gender dimensions of artisanal and small-scale mining: a rapid assessment toolkit. <http://siteresources.worldbank.org/INTOGMC/Resources/toolkit-web.pdf>

Annex 1

Participants List: Tanzania ASM thematic dialogues

NAME	ORGANISATION
1. Women in ASM	
William S. Wang	Ward executive officer
Emmanuel Mbise	HakiMadini
Roberty M. Songa	Entrepreneur
Hawa Kiranga	KIWATAMITA
Joyce Ndaruku	HakiMadini
Rosemarie Mwaipopo	UDSM – Theme expert
Eunice P. Negele	TAWOMA
Pili Husseni	ASMer
Agripina Kasiani	ASMer
Joram Wimmo	Action Aid Tanzania
Iman Hatib	Policy Forum
Blaise Burnier	SwissAid
George Mwafula	National Economic Empowerment Council (NEEC)
Adam Kobelo	Chairman of the Mererani Township
Hamis Dafi	ASMer
Mwanahamis Mzalendo	ASMer
Mariam Hasan	Food Vendor
Martha Bitwale	Madini Cluster
2. ASM interface with agriculture and other land use: Challenges and solutions for sustainable livelihoods	
Frank Mkumbo	District Mineral Secretary
Leonard Manyesha	Chairperson MBEREMA
William S. Wang	Ward executive officer
Charles Mershack	Tanzania Forest Conservation group (TFCG)
Emmanuel Mbise	HakiMadini
Msandae Ikusi Sambe	ASMer
Roberty M. Songa	Entrepreneur
Hawa Kiranga	KIWATAMITA
Joyce Ndaruku	HakiMadini
Neema Komba	TAWLAE
Rosemarie Mwaipopo	UDSM – Theme expert
Namsifuel Mahimbu	RECODA
Christopher Kadeo	GEREMA
Curtius Msosa	MAREMA

NAME	ORGANISATION
Amatia A. Ngerera	TAREMA
Eunice P. Negele	TAWOMA
Eng David Mlabwa	MEM
Pili Husseni	ASMer
Agripina Kasiani	ASMer
Junior Mkuranya	Entrepreneur
Joram Wimmo	Action Aid Tanzania
Iman Hatib	Policy Forum
Blaise Burnier	SwissAid
Angolile Rayson	PELUM – Tz
George Mwafula	National Economic Empowerment Council (NEEC)
Adam Kobelo	Chairman of the Mererani Township
Hamis Dafi	ASMer
3. Business case for ASM: Opportunities and challenges for growing mining and non-mining business	
Hawa Kiranga	KIWATAMITA
Martha Bitwale	Madini Cluster
Christopher Kadeo	GEREMA
Curtius Msosa	MAREMA
Erenest Sanka	MEM – Zonal mining officer
Ernest Wambura	Entrepreneur
Fredrick Katundula	New Habari
Ali S. Ali	MEM – Zonal mining Officer
Tuna Bandoma	STAMICO
Golden Hainga	GEREMA
Wilson Mutagwaba	MTL
Joseph Mangilima	Geita Gold Mining
Gonzaga Mungai	FAIRTRADE-AFRICA
Samwel Kalima	ASMer
Mtalingi Hamzeh	ASMer
Iman Hatib	Policy Forum
Eunice P. Negele	TAWOMA
Emmanuel Ngoyinde	SIDO
Augustino Kilugawa	AREMA
Majura Maingu	Ubunifu ASS
Ester J Nkware	ASMer
Miriam James	ASMer
Stefano Zablon	ASMer
Joyce A Mlay	Madini Institute
Salum Mkango	Madini Institute
Prosper Rweyemamu	Tanzania Investment Bank
Joel Matatia	Rwamgasa Umoja SACCOS

NAME	ORGANISATION
4. ASM-LSM interface and the role of government	
Hawa Kiranga	KIWATAMITA
Martha Bitwale	Madini Cluster
Christopher Kadeo	GEREMA
Curtius Msosa	MAREMA
Erenest Sanka	MEM – Zonal mining officer
Ernest Wambura	Entrepreneur
Fredrick Katundula	New Habari
Ali S. Ali	MEM – Zonal mining Officer
Tuna Bandoma	STAMICO
Golden Hainga	GEREMA
Wilson Mutagwaba	MTL
Joseph Mangilima	Geita Gold Mining
Gonzaga Mungai	FAIRTRADE-AFRICA
Samwel Kalima	ASMer
Mtalingi Hamzeh	ASMer
Iman Hatib	Policy Forum
Eunice P. Negele	TAWOMA
Emmanuel Ngoyinde	SIDO
Miriam James	ASMer
Stefano Zablon	ASMer
Joyce A Mlay	Madini Institute
Salum Mkango	Madini Institute
Prosper Rweyemamu	Tanzania Investment Bank
Joel Matatia	Rwamgasa Umoja SACCOS
Jozaka Bukuku	National Empowerment Council

Annex 2

Questionnaires: Tanzania ASM thematic dialogues

1. Women in ASM

- I. What needs to be done to help women equally participate in and benefit from mining activities?
 - What are the legal, cultural, social, educational, political, and other opportunities to redress gender inequalities?
- II. What practical avenues can be pursued to enable women transition from labour-intensive work to owning and running successful mining businesses – in the production and processing stages of the value chain?
 - Government legal and policy avenues and support mechanisms
 - Non-government support mechanisms
 - a. How can these factors be achieved? Consider geological data, access to capital, equipment and markets, entrepreneurial skills, regulatory incentives.
- III. What opportunities and mechanisms exist for women in ASM to grow in their diversified income portfolios?
 - Food vending, service provision
 - Other forms of businesses that women in Tanzania can potentially successfully run.
- IV. What can be done to ensure women have a role in decision making and to form strong associations to influence decision making?
 - How do they effectively voice opinions and priorities in decision making?

2. ASM interface with agriculture and other land use and the challenges and solutions for sustainable livelihoods

- I. What needs to be done to harness the complementarity of ASM and smallholder agriculture activities to support sustainable livelihoods?
 - What are the legal, cultural, social, educational, political, and other opportunities to realise this?

- II. Given the non-renewable nature of mining and at the same time its significant income, what avenues are there to help the agriculture sector leverage from these opportunities?
 - Government legal and policy avenues and support mechanisms
 - Non-government support mechanisms
- III. Are there examples that demonstrate successful utilisation of ASM benefits for profitable farming or farm related businesses, both in Tanzania and globally?
 - What are the enabling factors? How can these factors be achieved? Examples: access to capital and markets, entrepreneurial skills, regulatory incentives.

3. Business case for ASM: Opportunities and challenges for growing mining and non-mining businesses

- I. What needs to be done to help ASM operators establish, run and upgrade a **successful mining business**?
 - Consider legal, cultural, social, educational, political, and other opportunities to enable this.
- II. What needs to be done to help ASM operators and other actors within the ASM communities to establish, run and upgrade a **successful non-mining business** linked to mining?
 - Consider legal, technical, political, social, educational, and other opportunities to enable this.
- III. How can public and private sectors support artisanal miners' access to capital and access to equipment?
 - How can financiers and financial institutions be attracted/motivated to invest in ASM through loans and other mechanisms?
 - What is the role played by the informal financing/financiers (financing by business people, dealers and brokers) in the development of ASM?

- What are the advantages of informal financing?
 - What are the setbacks of informal financing?
 - How can informal financing be improved to meet the legal requirements for financing ASM activities?
- IV.** How can public and private sectors support ASM operators to access markets?
- How can certification or other market linkage initiatives support the business case for ASM?
 - What needs to be done to address the challenges to certification and benefit from Fairtrade certification?
 - How can value chain actors collaborate in addressing social and environmental issues in mining communities to develop an ethical and fair supply chain?
- #### 4. ASM-LSM interface and the role of government
- I.** List specific initiatives/activities/programmes and suggest how they can be successfully implemented to foster a peaceful and collaborative ASM/LSM coexistence.
- II.** What is the role of government (national and regional level) in easing the tension and promoting peaceful co-existence both:
- in short term interventions?
 - within broader governance frameworks such as ASM formalisation?
- III.** What is the current role of the local government (district and village level) in ensuring peaceful coexistence between ASM and LSM?
- Which additional roles can be played by each of the two levels of government?
- IV.** What is the role of both LSM and ASM operators, not only in realising peaceful co-existence from their own perspectives, but also forging some collaborative mechanisms?
- LSM operator's role:
 - ASM operator's role:
- V.** What is the role and effect of CSR and international codes, regulations and voluntary initiatives by organisations on ASM/LSM interactions?

Tanzania's mining sector dates back several decades, and involves exploitation of various metals (including gold, copper, silver, platinum, tin), gemstones (including diamonds, tanzanite, garnets, sapphires, rubies, emeralds) and industrial minerals (including lime, gypsum, kaolin, salt, sand). Artisanal and small-scale mining (ASM) has long offered Tanzania's impoverished population an opportunity for employment and income generation. But a range of issues continue to prevent ASM from becoming a profitable and responsible sector. Priority challenges identified through local research and engagement include an unsupportive environment for business; gender discrimination; tensions with large-scale miners and with government; inconsistent and complex land and licensing policies; and conflicting land uses. Through action-focused dialogue, multiple actors need to identify priority actions with clear roles and responsibilities within a roadmap for positive reform. Dialogue will need to address a number of key questions including: how can policymaking and implementation be made more participatory and gender-sensitive? What specific and realistic actions can be designed, what key responsible stakeholders identified, and what effective partnerships fostered to achieve a successful outcome? And what are the reciprocal obligations intrinsic to mutually respectful and beneficial relations across the sector?

IIED is a policy and action research organisation. We promote sustainable development to improve livelihoods and protect the environments on which these livelihoods are built. We specialise in linking local priorities to global challenges. IIED is based in London and works in Africa, Asia, Latin America, the Middle East and the Pacific, with some of the world's most vulnerable people. We work with them to strengthen their voice in the decision-making arenas that affect them – from village councils to international conventions.



International Institute for Environment and Development
80-86 Gray's Inn Road, London WC1X 8NH, UK
Tel: +44 (0)20 3463 7399
Fax: +44 (0)20 3514 9055
www.iied.org

Funded by:



THE TIFFANY & CO.
FOUNDATION



Knowledge
Products