

BUILDING CAPACITY FOR ENVIRONMENTAL SUSTAINABILITY IN ARTISANAL AND SMALL SCALE MINING IN AFRICA



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Foreword by AMDC



Dr. Kojo Busia
Coordinator
African Minerals Development Centre

The Africa Mining Vision (AMV) as a model of natural resource management in Africa seeks to transform the continent's social and economic development path through harnessing the continent's mineral resources, and the potential of the small scale mining. Its provision for Artisanal and Small Scale Mining (ASM) is "harnessing the potential of ASM to improve rural livelihoods, to stimulate entrepreneurship in a socially-responsible manner, to promote local and integrated national development as well as regional cooperation". AMV's ASM key tenet thus ensures that mineral exploitation goes beyond being a coping mechanism but an engine for sustainable development and growth as will be demonstrated by interventions envisaged in this workshop. With environmental sustainability in ASM as the overarching theme, the objective of this meeting is to initiate of a series of structured and coordinated interventions that ensure environmental and mineral sector governance within the nuanced AMV chartered paradigm of Country Mining Visions (CMV) or CMV processes.

Policy and regulatory frameworks on ASM practices that contribute to local development however, remain inadequate and undeveloped. Similarly, the technical capacity of ASM miners in aspects that would otherwise prove beneficial to the miners, the environment and sustainability of operations stay insufficient. There is limited or no access to geological information and appropriate knowledge management tools and a lack of

access to technical capacity building efforts, finance and improved appropriate technologies. The inter-twined nature of these challenges within ASM are such that mentioning one, inadvertently leads to pointing out several others. This is why the African Mining Vision's programme cluster on ASM speaks to "creating a (mining) sector that harnesses the (ASM) potential to advance integrated and sustainable (rural) socioeconomic development".

The transformation of the ASM sector into a growth engine for communities in which it is practised means adequately addressing the challenges related to ASM through deliberate, comprehensive and sequenced interventions that string together stakeholders that require impetus to actively work together. The African Minerals Development Centre as primary implementing custodian of the AMV, sees this as a perfect opportunity to work together with partners and stakeholders within and beyond the UN family, institutions, academia and private sector to put into action, contextualised domestication of the AMV through Country Mining Visions or Country Mining Vision processes whilst addressing environmental sustainability of ASM within African Member States.

Collaboration offers a formidable transformation agent within the ASM sector. It is thus nonetheless necessary to re-iterate the need for collaboration tools amongst all ASM change agents, and in

this regard – knowledge generation, sharing and dissemination under the auspices of an ASM knowledge management hub is not only complimentary to all efforts out there but a necessity for the integrity of maintaining African Mining Vision tenets and what will be initiated during this workshop and beyond.

It has become a cliché to present formalisation as a silver bullet for challenges faced within ASM, whether environmental, financial, social or technical. Whilst it is a misleading notion to view formalisation as the heart of addressing all and sundry major challenges in ASM – when countries work towards formalisation and do it systemically, it does offer pathways that align to the AMDC championed ‘golden triangle’ support for ASM. The triangle is a set of pillars distilled from the tenets of the AMV in espousing a sustainable ASM sector. The three service pillars are technical, finance and marketing services directed towards ASM within a supportive, dynamic policy and regulatory environment.

In bringing all this together, experience sharing underscores the importance of this workshop in exploring approaches that are scalable to regional economic community or intergovernmental level. In a bid to harmonize policy and regulations and encouraging standard practice in ASM environmental sustainability, knowledge management will retain the value of all efforts expanded during this workshop and beyond.

AMDC has embarked on and will continue with the support of all participants at this workshop – to grow an ASM Knowledge Hub within the context of an African Regional Minerals Knowledge Hub. The purpose of the hub is to focus on Artisanal and Small Scale Mining issues via a one-stop shop thematic portal which brings together relevant information and knowledge discovery tools in ASM and environmental sustainability in collaborative efforts with those that already exist. The hub also sits strategically as part of AMDC’s mandate to create and retain an African Minerals Knowledge Hub and thus

transcends the challenges of ownership and the inherently unsustainable nature of being “projectised”.

This meeting is an integral part of collaborative efforts moving forward to address the unsustainable cycles that limit ASM’s role in national development and poverty reduction. The partnerships nurtured here will continue AMDC’s work in geological and mineral information systems, economic linkages, artisanal and small-scale mining, human and institutional capacity development, and mineral governance. The potential of environmental sustainability in ASM will always root for inclusive, diversified growth, regional cooperation and development that will move Africa’s ASM sector forward.

Foreword by UN Environment



Mr. Samba Harouna Thiam
Head, UN Environment Liaison Office to AUC, UNECA and Representative to Ethiopia

The realities in the 21st Century left no choice but to be innovative in pursuing sustainable development actively in our countries. We have to be catalytic starting with ourselves individually and within our institutions, corporately.

With worsening global realities and environmental incidents such as climate change, environmental degradation and now impending funding cuts we must escalate our shared resolve to ensure that all the pillars of sustainable development are reached without compromising any one of them. In this regard, one of the strong aspects we ought to safeguard is to protect our environment and ensure minimal or no destruction to it.

The Africa Mining Vision recognizes that harnessing Africa’s natural resource endowment on a sustainable basis is critical for Africa’s development, and has a strong component for action to promote environmentally sustainable, safe and socially responsible mining and material stewardship that includes mining communities as beneficiaries.

In light of the aforementioned, the widespread Artisanal and small-scale mining (ASM) in Africa, as has been demonstrated here still has a myriad of challenges including inadequate policy and regulatory frameworks; the limited technical capacity of miners; limited access to geological information and appropriate knowledge management; lack of access to finance and

appropriate technologies; negative environmental effects and release of toxic chemicals harmful to health; as well as child labour and human rights issues.

Even with these few list of challenges, we can see that a lot is still needed to bring the ASM to the level that it can meet countries sustainable development goal objectives.

I am convinced that this workshop is an essential step towards our much needed effort to bring the issues to the fore. The passionate and committed technical experts who are doing great things in ASM are protecting and valuing our environment in this context as well. The lessons learned and information they bring will further inform out actions in protecting our environment and ensuring sustainable mining practices.

As reflected in the theme of the 2017 “World Environment Day”- Connecting with nature, we all acknowledge that we have Just One Earth, where we want our communities to connect with their hearts to the land and sea, where we farm our heart. We are reminded that when we work together we can achieve great things. UN Environment stands ready to work with you to ensure we not only meet our shared goals, but that countries move towards more environmentally sound and sustainable, creative mining sector that harnesses the potential of this extractive sector to advance integrated and sustainable rural

socioeconomic development.

We see the partnership for this workshop as a natural endeavour to promote an integrated approach in support of multi-stakeholder concerted efforts for safer and more sustainable environmental practices in artisanal and small-scale mining development, translating into collaborative efforts at the regional level.

Background

ASM aims to “create a mining sector that harnesses the potential of artisanal and small scale mining to advance integrated and sustainable rural socioeconomic development.”

The Africa Mining Vision adopted by the African Union Summit in 2009 recognizes that harnessing Africa’s natural resource endowment on a sustainable basis is critical for Africa’s development. One of the interventions proposed under the framework for action is to promote environmentally sustainable, safe and socially responsible mining and material stewardship that includes mining communities as beneficiaries.

As part of its global strategy on the environmental governance of the extractive sector, the United Nations Environment Programme (UNEP) has planned to initiate regional platforms for dialogue and capacity development at the regional level, to engage with countries and key partners on key issues related to mining.

This regional workshop is identified as one of the activities to support better environmental governance of the mining sector at the regional level, and is jointly organized with the African Minerals Development Centre (AMDC). The meeting focused on the implementation of the Africa Mining Vision through respective Country Mining Visions in the context of artisanal and small-scale mining.

Artisanal and small-scale mining (ASM) is widespread in Africa and exploits a very large number of minerals. This sector is however beset with a number of challenges, which prevent it from reaching its full developmental potential.

Many of these challenges are well known and include inadequate policy and regulatory frameworks; the limited technical capacity of miners; limited access to geological information and appropriate knowledge management; lack of access to finance and appropriate technologies; negative environmental effects and release of toxic chemicals harmful to health; and child labour issues. The ASM sector can be transformed into an engine for sustainable development and growth, particularly in rural areas’ livelihoods, if these challenges are adequately addressed through a series of well-targeted interventions.

Under the Africa Mining Vision, Programme Cluster 4 on ASM aims to “create a mining sector that harnesses the potential of artisanal and small scale mining to advance integrated and sustainable rural socioeconomic development.”

UN Environment, the United Nations family and the African Union have been working for many years to support the extractive sector. The partnership for this workshop is a natural endeavour to promote an integrated approach in support of multi-stakeholder concerted efforts for safer and more sustainable environmental practices in artisanal and small-scale mining development, supporting collaboration at the regional level.

Objectives

The following are the objectives of the workshop:

- Increase awareness and understanding of regional/country needs and perspectives on the challenges of improving environmental governance of artisanal mining including through formalization;
- Present key available tools and best practices in the environmental governance of ASM and formalization;
- Identify partnerships and synergy to be promoted both at Regional and Sub-regional levels among agencies and partners on environmental governance of artisanal and small scale mining, particularly on knowledge management
- Inform the CMV process, within the target countries participating in the regional meeting.

Structure

The meeting ran for three days with the first two days dedicated to exchange on artisanal and small-scale mining frameworks and evidence-based decision making in the countries. This was done by sharing country experiences on tools, case studies and best practices in order to identify gaps and opportunities for the development of Country Mining Visions that respond to the Sustainable Development Goals. The third day focused on discussing knowledge management for ASM and discussing concrete ways forward between countries, international partners and stakeholders. The key objective was to form a comprehensive knowledge hub and knowledge management infrastructure and identify key actions to respond to addressing the environmental sustainability of ASM practices with due regard to the formalisation challenge.

The meeting brought together partners involved in the integrated environmental governance of the extractive industries including the Ministries of Environment, Ministries of Mining, as well as representatives from civil society and communities. At the regional level, it included partners and donors involved in capacity development programmes on Artisanal and Small Scale mining.

Each module included a presentation of a partnership/approach by an international actor, a sharing of experience in relation to the partnership by one country representative and open discussion among participants for lessons learnt and recommendations.



Artisanal and small-scale mining (ASM) is widespread in Africa and exploits a very large number of minerals.

Programme of Work

Session 1

1.1 Sustainable ASM Sector in the context of the African Mining Governance Framework

By Paul Msoma, AMDC

The African Heads of State and Government adopted the Africa Mining Vision in 2009 with the long-term goal of attaining “transparent, equitable and optimal exploitation of mineral resources to underpin broad-based sustainable growth and socio-economic development”. The main focus of this agenda is development as it seeks to harness Africa’s natural resources sector to transform the continent’s social and economic development path.

At the 1st Extra-Ordinary Session of The AU Conference of Ministers responsible for Mineral Resources, a recommendation was made for “African States to develop their own home grown criteria for governance standards in the extractive sector rather than be subjected to manipulative external transparency initiatives”. Following this decision, the African Union Commission’s Department of Trade and Industry, through the African Minerals Development Centre (AMDC) embarked on the process of developing the African Minerals Governance Framework (AMGF).

The AMGF’s primary objective is to seek a home grown framework to be used primarily by African

states to monitor their policy performance in the minerals sector for the purposes of catalysing broad-based socio-economic development. Unlike other existing frameworks that are either state-centred, business-centred or issue-specific, AMGF is centred on a comprehensive development agenda. AMGF’s concerns include, inclusivity in the minerals sector; sustainability of extractive industries and the environment; tangible transformative development outcomes; synergistic state-business relations in the mining sector, and a robust oversight role by civil society organizations and institutions of popular representation at all levels.

The AMGF is an aggregate of AMV principles pivotal for the realization of the African Mining Vision. In Artisanal and Small Scale Mining, the AMGF focuses on “harnessing the potential of Artisanal and Small-scale Mining (ASM) to improve livelihoods, to stimulate entrepreneurship in a socially- responsible manner, to promote local and integrated national development as well as regional cooperation”. The desired outcome is a viable and sustainable ASM sector that contributes to growth and development.

The AMGF also provides guiding assessment questions for African countries to consider when initiating their AMV sensitisation process. These assessment questions cover policy and legal framework, a clearly defined “artisanal mining” sector, institutional frameworks and capacity



ILO estimates that 13 million people are employed directly in ASM and up to 100 million depend on it. ICMM puts the figure of ASMs operating in 30 countries at between 15 million to 20 million.

building, financing and taxation of small scale mining, environmental and health safety issues, ASM and sustainable livelihoods and access to information and technology.

1.2 Integrated approach to ASM- SARW OSISA Experience

By Percy F. Makombe, OSISA

ILO estimates that 13 million people are employed directly in ASM and up to 100 million depend on it. ICMM puts the figure of ASMs operating in 30 countries at between 15 million to 20 million. Small and isolated deposits of minerals are scattered all over Southern African Development Community (SADC) countries. These often lend themselves to economic exploitation through small-scale mining. With modest demand on capital expenditure and a short lead-time, they also provide employment opportunities for the local population. In certain countries, artisanal miners are exploited by companies who buy their produce cheaply. Artisanal mining in its current form in most SADC countries is poorly regulated and often not taxed. The SADC Mining Protocol makes provision for harmonization of mineral

policies, legislations and regulations in Member States.

Democratic Republic of Congo

ASM accounts for 90% of mineral production and involves 2 million people. It is practiced by individuals and recognised cooperatives within artisanal exploitation zones. Zones are designated where industrial or semi-industrial exploitation of a deposit is not feasible. The conditions for closing of an artisanal exploitation zone and the issues related to this closure are covered in the Mining Code. Permits are issued to Congolese citizens only. The DRC government has committed to provide business support and work towards formalisation of this sector (Poverty Reduction Strategy Paper). Currently, the government's ability to monitor ASM is limited, favouring tax evasion. Consequently, different national and foreign armed groups have for about 15 years been financed with money from ASM, especially in the east of the DRC.

Madagascar

The mining sector in Madagascar is currently dominated by ASM which employed up to

500,000 in 2012. There is currently no mention of laws, regulations or support measures for ASM sector in the country.

Malawi

Malawi's Draft National ASM Policy (2014) mentioned but report lacks details. The Draft Mines and Minerals Bill more clearly defines mineral asset disposal for artisanal and small-scale miners. The Malawi Poverty Reduction Strategy Paper (2002-2005) outlines support for ASM to promote sustainable pro-poor growth. Training of the ASM has been earmarked as an important activity but this has not been systematically rolled out.

Mozambique

The new Mining Law significantly changes the validity of the mining permits/mining passes, especially those for ASM" - no detail provided. There are an estimated 100,000 or more ASM miners with 1/3 of labour constituted by women and children (mostly in mining support activities). ASM is widespread but there is no mention of specific regulations; currently the government does not have the institutional and HR resources to support or monitor this sector.

Namibia

The Minerals Act of 1992 provides for the registration of small-scale mining claims, and a 'simplified' system for pegging and registration is aimed at promoting small-scale mining activities. The MME established the Namibia Small Miners Assistance Centre (NSMAC) in 1997 to provide geo-technical support to ASM. Small-scale mining is represented by two organisations on the both the Mineral Board and the Mineral Fund Board. There are an estimated 2000 small scale miners according to the MME, mostly one-person operations digging for gemstones. About 80% of the small-scale mining activities are categorized as 'illegal' operations. Support for small-scale mining includes the Minerals Development Fund (MDF), while technical support is available through the relevant structures of MME. There are small-

scale mining support centres in place to assist miners in the development and implementation of appropriate technology. Co-operatives offer an additional vehicle for securing funding for the development and application of technology to small-scale mining. Indications are that MME and the Ministry of Industrialisation are working towards establishing a gemstone evaluation hub in Karibib.

South Africa

Small-scale mining (ASM) is provided for by way of a mining permit for minerals that can be optimally mined in 2 years or less in a mining area of less than 5 hectares. These permits are valid for 2 years and can be extended three times for one year. SA treats ASM as illegal mining, and every year experiences several disasters in which illegal miners are trapped in disused mining shafts.

Zambia

Zambian Mining Policy seeks to develop the small-scale mining sector to undertake the following measures: encourage the use of appropriate, affordable and safe-technology; collaborate with small-scale miners' association; disseminate information to raise awareness on occupational safety, health and environmental risks, and provide occupational health and safety guidelines for small-scale mining; and improve the system of information flow the opportunities present and the regulations governing the sector. The Zambian Mines Act (2015) provides for the granting of small scale and artisanal mining licenses and a small scale exploration license. Allocation of Artisanal licence is reserved for a citizen, or a cooperative wholly composed of citizens.

Southern African Resource Barometer

The Southern Africa Resource Watch (SARW) and the Southern African Development Community-Parliamentary Forum (SADC-PF) developed the Southern Africa Resource Barometer (SARB) as part of their contribution to already existing

efforts to promote better management of natural resources. It is used as a tool to train parliamentarians in southern Africa in exercising their oversight role on the extractives sector.

The African Mining Vision is the critical document as it is the catalyst for mobilising and empowering local actors involved in ASM as well as in contributing to sustainable development. The development of SADC is inextricably linked to its vibrant minerals sector and its future will be determined by how well it exploits its mineral resources – to diversify its economic base. It is therefore important to work towards harnessing all available regional resources so that the mining sector can fulfil its vital role in the development of southern Africa. Furthermore, it is important to harness the potential of artisanal and small scale mining to improve livelihoods and integration into the rural and national economy. Adopting a Regional Economic Community level approach to harmonise the policy and regulatory frameworks including Environmental Legislation would also encourage uniform practice. Establishing regulatory frameworks to align the activities of mining with inclusive and sustainable development is central to the challenge of mineral governance. While enacting an appropriate regulatory framework is crucial, it is only a first step in establishing effective mineral governance. A regulatory framework only has its desired effects if the government has the capacity and motivation to implement it.

1.3 Environmental Sustainability in ASM, The Zambian Experience

By Mooya B.C. Lumamamba, Director of Mines, Zambia

Zambia's mining history dates back to the 1900's. Since then, the major minerals mined included copper, cobalt, coal, lead, zinc, manganese, and gold. Precious and semi-precious gemstones are also produced along with industrial minerals. Most large scale mining (LSM) are concentrated on copper and cobalt while Artisanal and small

scale mining are into gemstones and industrial minerals and lately into informal gold panning. The ASM sub-sector in Zambia has largely remained undeveloped despite various interventions by government.

In 1995, the Mines and Minerals Act was introduced as an Artisanal Mining Right. This was issued in the regional mining bureaux and had relaxed requirements or conditions for licencing issuance. Mining licenses were granted to Zambian citizens only. In 2015, the Mines and Minerals Development Act introduced a gold panning certificate. In line with this, the Ministry of Mines is collaborating with Zambia Revenue Authority and Industrial Development Cooperation to simplify taxation systems and create a vehicle for marketing the produced gold. Currently, there is not lot of variations in legislations governing ASM and LSM. The only difference is that a full environmental impact assessment is required for LSM whereas for ASM, an environmental project brief (EPB) suffices. Moreover, gold panning is exempted from the EPB requirement, although heavy equipment is prohibited for gold panning to minimise environmental damage.

To fully develop the ASM sub-sector in Zambia, there is a need to formulate a separate ASM legislation and a different fiscal regime. Technical extension services also need to be provided. The government may prepare geological reports to attract partnerships and provide basic infrastructure in ASM communities as well. Cooperatives in the sector should also be encouraged and environmental sustainability to be mainstreamed. Currently, Zambia has an environmental protection fund where all mining companies make a cash contribution for future environmental remediation, though ASM is still not included in this. Efforts should be made to bring ASM on board.

Zambia has engaged a consultant with the aid of UNDP to draft a Country Mining Vision (CMV). Once the CMV is finalised, it will pave way to

revision of various legislation governing the ASM sub-sector. Zambia is also party to the ICGLR Initiative of harmonising legislation in the region. The draft guidelines by the ICGLR will be taken into account as studies are being undertaken on how to implement the other tools of the campaign against Illegal Exploitation of Natural Resources (RINR). There is need to harmonise various regional initiatives as they have common goals- sustainability, wealth creation and social protection.

Zambia also takes cognisance of the Southern Africa Resource Governance Barometer report as it revisits policies and various legislation accordingly.

Zambia has taken several strides in formalising ASM through the establishment of simpler licensing processes. Illegal mining and trade however still continues in some parts of the country. Zambia will step up efforts towards implementing regional initiatives to completely formalise ASM and make it sustainable. Zambia will join the rest of the region in domesticating the AMV.

1.4 Discussion and recommendations

Session 1 discussions and recommendations focused on the the harmonisation of existing and future projects regarding the ASM sector, the sensitisation of the Africa Mining Vision and the Country Mining Vision, and, the feasibility of model mining law or policy framework.

The challenges of the ASM sector have been recognised and there are a number of existing initiatives and interventions that are addressing the same issues. Making sure that these steps towards addressing ASM challenges are comprehensive can be challenging itself. Below are the responses and recommendations regarding this particular conjecture.

- The harmonisation of the projects is possible through the overarching framework provided by the AMV/CMV. What differentiates the AMV from other mining frameworks is that it looks at mining from a holistic point of view and not in isolation. The approach is developmental and builds on a transparency paradigm of contract licensing, revenues and investments. For instance, even at the initial phase of contract negotiation, under the AMV principle,

ASM can be transformed if challenges are adequately addressed through a series of well-targeted interventions.





The African Mining Vision is the critical document as it is the catalyst for mobilising and empowering local actors involved in ASM as well as in contributing to sustainable development.

linkages are already considered so are input to the whole mineral value chain so that value can be optimised for the country. Because the AMV ensures a holistic approach to mineral development, the ownership of the entire mining regime falls to the hands of the mining stakeholders and not just a single entity. This approach can prove daunting and multi-faceted though, thus the work of the African Minerals Development Centre proves to be essential in the sensitisation of these processes.

- Approaches to ASM challenges have to be taken from isolation to more integrated, comprehensive approaches. Existing initiatives and interventions address gaps without regards to other factors that might be contributing to the problem. If the ASM sector is taken into isolation, disregarding other externalities, it will be difficult to address or resolve any issue affecting the sector. A more holistic approach as provided by the CMV is needed as it affects the broader political economy of the country, the constitution, the integration of regulatory framework and policies. For instance, as a country enters into the CMV processes, it assesses and analyses the gaps that exist in all facets related to mining, not just the mining law itself. In some cases, a broader intervention in investment laws or fiscal regime is much more

needed than an overhaul of the mining policy.

- For initiatives and interventions to be comprehensive, they have to come from a single paradigm. The AMV is this paradigm and African states are highly encouraged to take advantage of a such a cohesive approach to mineral development. The AMGF provides for assessment mechanisms that involves understanding projects implemented and their impact. It has a section that addresses what kind of instruments are in place in that country and supports the drafting of an inventory and a comprehensive report regarding the initiatives being implemented. This will inform decisions on moving forward in the CMV sensitisation proves and will guide institutional changes.
- It is recommended for the AMDC to draw a list of projects and consolidate profiles of initiatives and their alignment to the AMV. This tool can inform the ASM Hub and will ensure that projects and initiatives are aligned with the AMV and CMV.

The issue of political will in the implementation of regional initiatives was also raised.

- There has been a number of regional initiatives that have been established though they have failed to take off. In order for regional initiatives to be fully implemented, political will among countries is needed. Collaboration and learnings

have also to be taken into account. For instance, Ethiopia has a clear definition of the ASM sector and this has to be taken as best practice and should inform regional practice as well.

- Political will has both broad and limited definitions. What constitutes political will vary according to countries as the AU's mere adoption of the AMV can be considered political will while for some, this may not be enough. It is a subjective issue that should be taken into context. With regards to regional initiatives, the implementation process hinges on a cohesive yet holistic approach. Government officials and policy makers have to make informed decisions regarding the initiatives that have to be implemented, though experts and other stakeholders have a similar role as well. Mechanisms such as the CMV and AMGF also exist to provide added frameworks and so does the expertise available at AMDC. CSOs, mining communities and traditional leaders should also be utilised to capture comprehensive information from the bottom-line and so should the voices of the media and the private sector. This participatory approach will not only prove fundamental to the success of an initiative but will also foster ownership to all stakeholders of the mineral value chain.

The discussion on the harmonisation of initiatives broadened the topic towards the case for a model mining law.

- There is a case for a model mining law to exist as it will clearly define the principles set by the AMV and CMV. This law will directly address three anomalies that affect the mineral value chain, i.e. export of minerals; effect response to illicit financial flows; and poverty regardless of mineral wealth.
- A model mining law can prove challenging as this will entail a one-size-fits-all methodology in policymaking. The AMV provides one common guiding principle, but it does not direct a singular approach to mining development.

Each African state is unique, with its own political economy and mineral endowment. It is thus recommended to adhere to the AMV principles but apply different approaches to its sensitisation.

- A model mining law will only be as effective as the legal framework used to control it. As different countries have different requirements, a model mining law will only be relevant if it responds to the reality on the ground. Since the adoption of the AMV in 2009, African states have gained experience in rolling out related initiatives and interventions and must learn from them.

The Africa Mining Vision and the resultant, customised Country Mining Visions or processes provide for the development of artisanal and small scale mining. The points discussed on AMV and CMV are as follows:

- The principles of the AMV for ASM have been clearly defined though there are still a number of challenges faced by the sector. In order to sensitise AMV principles in ASM, considerations in five key areas have to be made: (1) ownership of natural resources- colonial legacy and private ownership, post-independence struggle in accessing resources; (2) registration- definition of ASM and recognition of the sector as a legal activity; (3) production- financial viability and environmental sustainability of the production processes; (4) marketing- maximising revenues and adding value to the production; (5) exit strategies- consideration to environmentally sustainable practices.
- The AMV's development framework is recognised as an effective tool in mineral development that will benefit the bottom-line. It takes into consideration policy areas that have proven to be challenging, particularly with regards to gender, the youth and other vulnerable persons. However, precautions have to be taken in organising miners and considerations have to be made towards

the beneficiary of these organisations. Consequently, analysing what employment is added to the economy and how to mitigate gender and human rights risks will also benefit the ASM value chain as a whole. Difficult issues such as what constitutes “miners” and what entails “mining” activities have to be regarded. According to statistics, 38% of ASM workforce are women but they only receive 11% of revenues.

- The strategic opportunities underlying the ASM sector have to be defined and taken advantage of. One of these is backward linkages. 60% of the mining sector’s operational costs goes to supply inputs and considerations have to be made on how African countries can capitalise this. Most states emphasise taxation and fiscal regime when drafting their mineral policies. However, the potential of this mining input is far higher than the tax regime (USD \$5 billion). Thus, countries have to decide which one to prioritise as linkages of the AMV brings different value to the entire mining regime in the continent including the ASM sector.

Session 2

2.1 ASM Action Dialogues in Tanzania

By Willison Mutawagba, MTL Consulting Lead for IIED, Tanzania

The International Institute for Environment and Development (IIED) ASM Dialogues Programme 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 in a more inclusive and responsible mining sector. IIED ASM Dialogues provides a much-needed forum for multi-stakeholder collaboration and knowledge sharing to promote better governance, greater voice and secure and productive mining employment and complementary rural livelihoods. The programme

also 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. The IIED ASM Dialogues is also not a one-off event, but an ongoing process of engaging key players in research and priority setting, developing national ownership of a solutions-focused agenda, and promoting multi-stakeholder collaboration for change in both policy and practice.

In Tanzania, multiple entities have been identified to cover the IIED ASM Dialogues space. MTL consulting has been appointed as the dialogue’s Researcher with a goal to carry out background finding research to inform the dialogue. A Research and Evidence Reference Group has also been established and is contributing to the relevance and quality of the research. The Arusha-based HakiMadini on the other hand has been chosen as the dialogue’s National Convenor with the responsibility to lead organisation of the dialogue, including stakeholder engagement and communications.

Following the IIED scoping visit to Arusha and Dar es Salaam in September 2016 wherein a strong consensus was made for an evidence-based and forward- looking national dialogue, a background research is currently being developed to inform the agenda for the dialogue. Preliminary research findings will be presented in July 2017 and inputs from participants gathered in regard to key priority issues and ideas for carrying out the dialogue week. Moreover, a donor conference will be organised to present the findings of each thematic dialogue and reflect on an outline Tanzanian ASM reform programme. The conference will also present identified action for each thematic area in order to gain funding support. Currently, the ASM process is properly linked to national and local development plan (December 2017) and an ASM reform strategy is set to be delivered to relevant authorities.



Establish awareness-creation outreach programmes targeted at ASM communities, with the aim of addressing the lack of knowledge and skills

2.2 Engaging and empowering ASM Miners and communities on policy-making

2.2.1 STAMICO insights on the AMV and CMV processes in Tanzania

By Tuna B. Bandoma, Manager, Small-Scale Mining, STAMICO, Tanzania

In 2016, Tanzania adopted the Africa Mining Vision. Before this, the 2009 Tanzania Mineral Policy has provided for AMV-compliant objectives. It seeks to develop small scale mining through transforming and upgrading into organized and modernized mining by developing and implementing programmes; facilitating access to mineral markets, geological information and technical and financial services by involving stakeholders; and ensuring preservation of environment by stakeholders' involvement.

Under the Tanzania Mineral Policy Mandate, the State Mining Corporation (STAMICO) is tasked to transform and develop the ASM sector and facilitate the development of well-organised, developed, productive and environmentally friendly operations. Accordingly, STAMICO has identified key challenges facing ASM in Tanzania

and has drawn up strategies to mitigate these challenges. Currently, STAMICO is conducting exploration in selected ASM areas and drilling for mineral resources estimation and mine development. It also provides training on the use of geological information by ASM; prepares technical reports on the development of mining projects; and facilitates ASM's access to capital from financial institutions by supplementing their development of business plans. Moreover, STAMICO is also developing centres for processing ASM minerals and adoption of appropriate technology while providing technical support in equipment operation. It is establishing mineral buying centres, encouraging participation in the preparation of the National Action Plan of Mercury Reduction, and developing ASM training guidelines.

The implementation of the AMV and the CMV still have gaps that need to be identified and addressed for better ASM development. It is thus recommended that all key stakeholders should be involved to identify existing gaps through an independent consultant. The IIED Dialogue is one of these initiatives that is currently supporting in the identification of these gaps.

2.2.2 Participatory approaches to ASM policy frameworks and decision-making: ARM's Experience

By Maria Laura Barreto, Alliance for Responsible Mining

The Artisanal and Small Scale Mining policy space has been improving as international recognition is becoming a permanent reality. The number of national ASM policies in expanding so as legal frameworks and programs dedicated to the formalisation of the sector. There is also an increase in market recognition of ASM as a potential source for responsible production of minerals. However, this progress towards successful formalisation of the sector is limited due to resource constraints and lack of adaptation of government strategies to meet the capacities, needs and priorities of the miners.

In order to develop comprehensive ASM policy and legal frameworks, there is a need to understand ASM as a legitimate economic and mining segment. Recognition that ASM operates with unique technical and economic models that differ from, but are complementary to industrial mining is also imperative. One of the challenges that face effective development of ASM policy frameworks is the lack of recognition of the diversity of categories of ASM and the associated needs for different types of mining titles. ASM concepts are also tied to restrictions on production, technology, number of workers, investment, etc. that create unnecessary barriers to development of the operations. The lack of flexibility in ASM organizational entities on the other hand restricts business options, or creates artificial "paper" structures. Additionally, weak mineral tenure affects the economic, financial and entrepreneurial behaviour of ASM operations and does not promote or protect investment, workers and the environment. The financial aspect of the sector is also problematic. The lack of access to credit or credit schemes that are not accessible or appropriate for ASM plus the excessive focus on taxation, royalty and fees for revenue

generation perpetuate black markets. Support for capacity building for private and public sector (ASM operation and for the government agencies) is also needed along realistic technical and bureaucratic procedures for licensing and permitting of the ASM operations.

To address these challenges, it is recommended that governments should gather data directly from miners (and in partnership with miners) on specific obstacles, opportunities, priorities that will help with more efficient and effective policies and laws. Creating space for ASM associations and organizations to engage in policy and assist in implementation of frameworks would also be highly beneficial for the sector. In order to move beyond the promise of a bottom-up approach to actual engagement with ASM miners and their organisations, these recommendations were put forward:

- Establish active site-based capacity building programs for miners and government officials;
- Improve engagement with local governments that are involved with regional economy and community issues;
- Enable solution-based exchange between miners in different countries and circumstances;
- Use ASM ethical market certification systems to advance health, safety, gender, child labour and environmental reforms;
- Promote academic science and technology programs to engage with ASM solutions and innovations;
- Develop a complementary and integrated LSM/ ASM approach to national mineral development;

2.3 Participatory approaches for environmental resilience in ASM

By Andrew Cooke, Estelle Levin Limited

The ASM sub-sector is currently dominated by a massive growth of Artisanal Small Scale Gold Mining (ASGM). This presents a high impact upstream - mercury pollution, soil-loss

and biodiversity loss. These impacts may be extreme and irreversible; for instance, “galamsey” in Ghana, ASGM in Guinea, ASM gemstone rushes in the protected areas of Madagascar, poaching gorillas in DRC etc. These impacts also affect perceptions of ASM which is increasingly associated with organised crime and financing of armed groups and extremists, which become barriers to ASM formalisation.

BEST-ASM, Biodiversity and Ecosystem Services Transformation in Artisanal and Small Scale Mining is a continuation of ELL’s ASM-PACE initiative (a study of ASM in protected areas & critical ecosystems) with a focus on the transformative reduction of ASM’s impacts on Biodiversity and Ecosystem Services (BES). Its main objectives are to broaden the scope of mitigation in ASM operations, improve availability of, and access to, mitigation tools and capacity to apply them and measure their effectiveness for scalability and knowledge mobilisation. BEST-ASM also aims to build capacity for improved environmental performance by engaging relevant stakeholders, initiatives and projects, demonstrating mitigation strategies and tools, evaluating and improving

approaches based on lessons learned and replicating impact.

One challenge to ASM formalisation is that environmental performance has little influence on the formalisation process. However, environmental performance provides an option for less controversial entry points to formalisation compared to others. Formalisation is a necessary first step to make environmental management more possible and more likely. As environmental management requires the existence of accountability structures around it, there needs to be a business case or incentives for performance, or a stewardship mentality. That said, there is still a need for pre-formalisation ASM environmental management tools, especially on engagement with the ASM community.

It is thus recommended that a whole sector value system knowledge driven approach must be maintained. ASM should be seen as a foundation for future development. ASM environmental mitigation approaches should also be coherent with LSM and MSM and its mitigation tools should be broadened. Value and risk need also to be



The transformation of the ASM sector into a growth engine for communities in which it is practised means adequately addressing the challenges related to ASM through deliberate, comprehensive and sequenced interventions that string together stakeholders that require impetus to actively work together.

better aligned to ensure sufficient value capture to allow for for mitigation. Building on established and evolving environmental management tools is also imperative as is the adoption of a BEST-ASM or similar approach to engage, demonstrate, evaluate and replicate impact. Adoption of a country specific approach with incentives will also help drive change within the ASM community and the formalisation of the sub-sector.

2.4 Discussion and recommendations

The Session 2 discussion and recommendations focused on the participation of ASM miners and mining communities in policy-making, legality of the ASM sector, and country initiatives that have engaged ASM miners as active stakeholders whether in dialogue or otherwise.

Several African countries have taken some steps to legalise the ASM sector, though most have still a long way to go. The issue of the legality or illegality of ASM has a direct impact in formalising the sector and ensuring that ASM miners benefits from the economic advantages of the mining sector.

- There is a fine line between legality, formality and criminality where local gangs and even global criminal networks have taken over the ASM sector of some countries as illegalisation

fuels the growth of the black market. In DRC, the major learning is the shift from managing individuals to managing spaces, directly impacting mining communities and not isolating a particular kind of practice. ASM should then be seen as a path towards growth and industrialisation, and its legalisation should be seen as a gradual process, from recognition to formalisation and legalisation and eventually to industrialisation.

- The legality issue of ASM immensely affects to the economic viability of mining activities. In the mining supply chain, ASM miners have to pay double for everything if the industry is illegal. Policymakers have to realise that the problem is not the miners, in fact, miners can be harnessed to established a comprehensive ASM legal framework to the benefit of the economy. The issue lies in the commercialisation process, when for instance, gold produced informally becomes formalised.
- IEED dialogues are changing how legal frameworks are developed in several countries. However, in some cases, issues remain unabated and history repeated. For instance, the effects of the prohibition and criminalisation of mercury use to ASM miners. Half of the jobs are in the production process and social and environmental impacts of this prohibition have



Develop policy, legal and regulatory provisions that integrate ASM into wider rural development strategies and programmes

to be carefully analysed. It is thus recommended to investigate the case of Ghana and Tanzania to see what worked or not in this sector.

Country initiatives and institution-led interventions regarding participatory approaches to ASM policy-making frameworks were also discussed.

- In Nigeria, a new road map is being established to look at the ASM sector holistically. However, there are some realities on the ground that make this road map difficult to implement. At the national level, the institutions and laws are at odds with what is being done in the ASM sector. For instance, the Mining Act issues 100% tax-free waivers for ASM investors in importing machineries. However, the Customs officials claim that they do not know this particular provision. Additionally, the mining policy itself is flawed as it did not go through a political nor economic assessment processes.
- In 2010, Tanzania issued a regulation regarding ASM, simplifying the environmental impact assessment requirements for small scale mining. However, this has not worked and the government is now currently working with the World Bank to come up with new strategies. The failure of this initiative came from the assumption of the needs of the ASM sector, without engagement with the ASM miners themselves. Before legislation, policymakers have to make sure that they understand the environmental and social impacts of the ASM activities first and then try to come up with strategies that best fit the capacity of the people implementing it. Most ASM miners have little education and the technicality of the sector also proves a hindrance to their understanding of the environmental and social impact of their activities. Simplifying the language, incorporating graphics and pictorial depictions would address these challenges as guidelines become easier to understand for ASM miners. Although ASM registration has improved despite some drawbacks, recognition of localised environments has failed to pick-up. Land issues are usually dealt top-down and policies

implemented by the national government might complicate matters in local villages. This implies the importance of engaging ASM miners in any legislation passed that affect their sector.

- UNDP has a number of projects and initiatives focused on ASM. In Tanzania, the UNDP country office is currently implementing an instructive governance programme called TIVA. In Ghana, there are terms of references being circulated on minerals and mining policy of the country. It encourages better involvement of the ASM stakeholders. UNDP recommends that policymakers in these countries should then coordinate with the existing initiatives and try to leverage the research and outcomes that have already been achieved. For instance, UNDP is conducting five training workshops in geo-data and geo-mapping with the African Minerals and Geo-science Centre (AMGC) and STAMICO can be involved in those workshops. Another recommendation is to collaborate exploration mutualisation efforts with large-scale companies to make geo-data available to ASM. Reports and technical analyses of samples collected should not remain private and incentives should be given to large scale miners to go beyond the sole mineral that they are interested in. There are also ASM Training Guides available at UNDP alongside training modules that properly translate ideas to visual elements and can be used to disseminate clear information to ASM miners.

Session 3

3.1 Overview on AMV and Environmental Legislation Issues

By Lacina Pakoun, ACP- EU Development Minerals Programme, UNDP

Development Minerals (DM) are materials that are mined, processed, manufactured and used domestically in industries such as construction, manufacturing, and agriculture. Development Minerals are economically important and



For the ASM sector as a whole to continue to be developed, and in consideration of Development Minerals as well, a re-examination of quarrying and ASM as viable economic activities that are knowledge-based and knowledge driven are essential.

close to the location where the commodity is mined. In May 2016 at the 1st AU Specialized Technical Committee on Trade, Industry and Minerals, a continental call was made to prioritise Development Minerals as part of Africa's industrial agenda. This call was based on the realisation that though low in value as per function of their weight, Development Minerals have high value for the domestic economy. They also provide value addition and domestic linkages opportunities as they are locally sourced, exploited, processed and consumed and low dependency on export.

Though accessible and profitable, the development of Development Minerals remains neglected and mostly artisanal. The challenges lie on the lack of geological data since only areas of mineral occurrences are known and reserves have not been estimated. Another challenge is the adhoc exploitation of the current reserves, little extension of services and the lack of access to finance and technology of Development Minerals miners, where the majority are ASM.

The development the ASM sector has thus profound implications to the extraction of DM. In this regard, the AMV's provision for ASM will

have an impact on Development Minerals as well. The AMV aims to foster the establishment of resilient artisanal and small-scale mining (ASM) Communities. It seeks to formalise ASM and upscale programmes to upgrade knowledge, skills and technology in the ASM sector; mainstream ASM into poverty reduction strategies; ensure gender equality; eliminate child labour; stimulate partnership with government and large-scale mining to facilitate access to technology, skills, knowledge and markets; and strengthen ASM associations. It stirs Regional Economic Communities (RECs) to harmonise ASM policies, laws, regulations, standards and codes.

However, eight years on, challenges regarding ASM still remain. In many jurisdictions, the legislative framework is skewed toward issues relevant to large scale mining. The ASM legislation is often restricted to matters of title with very little provisions for other aspects, especially in its sustainability. It has long been practiced as source of livelihood though formalisation processes are only beginning to appear now as well.

For the ASM sector as a whole to continue to be developed, and in consideration of Development Minerals as well, a re-examination of quarrying and ASM as viable economic activities that are knowledge-based and knowledge driven are essential. Putting them at the heart of national industrialization and economic transformation efforts through value addition will leap their formalisation process. ASM should not be regarded as source of tax for government superficially but source of job creation and employment, with economic linkages to the bottom-line. Designing sector specific policy towards ASM will provide direct outcomes to its formalisation as recognition of ASM and knowledge- based development approach will provide the extension services support in sector organisation (land use planning; diverse support to small scale miners: capacity building, social entrepreneurship; organize miners into cooperatives or associations); sectoral transformation (tenure security; value addition; upgrading from Artisanal to Small scale to Medium scale; value chain strengthening); access to information (geo-data; finance; market); and sustainability (development of ASM-friendly standards with and for miners, e.g. Health, Community Health and Safety).

3.2 SDC experiences and lessons from Latin America and Asia

By Patience Singo, Swiss Agency for Development Cooperation

The Swiss Agency for Development Cooperation (SDC) considers ASM as a development topic. It has implemented four major projects in Ecuador, Bolivia, Peru and Mongolia since 1992. It has identified best and bad practices in areas such as technical assistance, appropriate technology, sustainable livelihoods, formalization, empowerment, frugal rehabilitation and mainstreaming human rights based approaches.

SDC has identified institutional drivers for ASM formalisation. Political will has to be present as

it will inform country decision, leadership and ownership. A holistic policy and legal framework that addresses the now and the future of ASM is also needed. ASM cannot be legislated away but can be directed through comprehensive policy and legislation. Formalisation does not also happen in a vacuum and is driven by institutions with mandates and resources. In this regard, Institutional capacity and leadership are imperative and so is engagement with mining/ miner institutions and organisations.

Mongolia

The Small Scale Mining legal framework in Mongolia was enacted in 2010. It was in most aspects, restrictive and myopic (1-year land contract, engine capacity, prescriptive ASM organizations, very high taxes, etc.). The formalisation process that followed had stalled and formal ASM progressed into illegality, while informal ASM increased. The need for revision of regulations has never become more apparent though and this is what exactly what Mongolia is doing. It is amending its mining law to better reflect different scales of ASM and its growth potential, allowing for different types of organisations to exist in the subsector.

Currently, Mongolia has fully embraced ASM as part of the mining sector. The government has realised that policy discussion without ASM is incomplete and the ASM regulation passed outlines different ministries, provincial and local government roles in providing services to the ASM sector. This shifts the burden of “responsible ASM” from being just a “miners call” but a deliverable expected from government agencies through professionalization.

Peru

Was a good case of ASM formalization since enactment of the Law on Formalisation and Promotion of Small-Scale and Artisanal Mining in 2002. However, in mid-February 2012, a series of legislative decrees were enacted, giving miners one year to comply with relevant legislation

or face up to ten year's imprisonment. All the illegal mines, and semi-formal mines and those still in the process of fulfilling all requirements were forced to stop. The formalization approach requires 1,260 administrative workdays to complete with a total cost of more than USD \$80,000 for a mine.

Mongolia was inspired by Peru to formalise its sector but faced with a similar challenge, Mongolia acted differently. The key lesson is that the performance of ASM sector in each country is largely a result of country priorities, policy and regulatory frameworks, institutional mandates, implementation, capacities and miner engagement.

3.3 Overview of the Minamata Convention and ASGM Action Plan

By Susan Egan Keane, Natural Resources Defense Council

Article 7 of the Minamata Convention states, ASGM countries “shall take steps to reduce, and where feasible eliminate, mercury” in Artisanal and Small Scale Gold Mining. In Annex C, it provides for national action plans with regards to minimizing or mitigating mercury use using four strands: goals and processes; health; technical strategies; and, enabling policy framework.

Goals and processes start off with stakeholder involvement, then identification of baseline mercury use and practices, setting national objectives and mercury reduction targets and a drawing schedule for implementation. The health strand involves planning and implementing public health strategies that include the protection and sustainability of vulnerable populations. Consequently, technical strategies employed will aim to eliminate worst mining practices and reduce emissions, releases and exposures. The development of an enabling policy framework will include formalising or regulating ASGM, managing mercury trade and disseminating and providing information.

3.4 Discussion and recommendations

Session 3 discussion and recommendations focused the governments' role in development minerals, the alignment of UNDP mandate to the AMV and CMV processes, the Mongolia country experience, particularly in curbing mercury use in ASGM and the Minamata Convention.

Comments and recommendations pertaining to the governments' role in the utilisation of development minerals are as follows:

- In Kenya, the sand sector produced USD \$200 million and construction stones USD \$300 million in revenues. In Uganda, USD \$300 million of revenues were collected from brick production. This underpins the importance of development minerals in the broader mining sector and should inform current and future policies.
- Governments with decentralised systems meet few challenges in reconciling mandates in terms of development minerals. However, as the sector profile arises, the central government might see the sector as a source of fiscal revenue and might have challenges in controlling the sector. What is essential then is the collaboration between central and local governments based on the existing mandates. Currently, there is no struggle yet as development minerals production have not reached its maturity.

The discussion on mercury use and the Mongolian country experience in the ASM sector is as follows:

- ASM emerged in Mongolia in the 1990's and was considered illegal. There was no classification between formal ASM, informal ASM (no access at official length), and illegal ASM. Mongolia tolerated the informal ASM and reviewed legislation related to their activities. However, illegal ASM operations were halted and the situation became heated. Police and the military were involved. This

particular situation is telling how human rights, government policies and ASM miners are interconnected.

- In Mongolia, the relationship between ASM-LSM are still quite sensitive as there were some instances that ASM invaded LSM facilities. Currently, part of the regulation of the ASM sector encourages partnerships with LSM and experience-building between the two sectors.
- Mercury-free technologies are currently in the market, though the challenge is not technical capacity but the financial viability of these technologies. A single unit can cost around UK £50,000 and this proves to be too expensive for ASM miners.
- Currently, there is no available data for the exact amount of mercury used by ASM. There are efforts to collect more data. China for instance has issued controlled mercury value from coal emissions and has implemented draconian measures to curtail mercury use.

Discussion and recommendations on the Minamata Convention are as follows:

- The Minamata Convention requires eliminating or reducing mercury use. It is approached in a project-level and should be integrated in the economic systems as the reduction of mercury use will affect the distribution of tailing processes. The importance lies in cleaning the tailings. In Peru, revenue from gold was used to pay for the process of removing mercury from artisanal tailings. Commitment to the Minamata Convention can dictate current and forward processes and there has to be a move from concentrated amalgamation to separation so that tailings are kept clean. This will also curtail illicit trade from the sector.
- Projects under the Minamata Convention have strong emphasis on creating access to finance for miners. The overarching objective of the convention is the reduction of mercury use and one strategy for that is the training of miners. There are economic benefits in stopping



AMDC has embarked on and will continue grow an ASM Knowledge Hub within the context of an African Regional Minerals Knowledge Hub.

mercury use and better processes exist (gravity separation). New entrants in the sector should be informed about this so they can pick-on technologies that could make new revenue streams.

- Currently, 51 countries have ratified the Minamata Convention and 120 parties have signalled their interest in signing it. The convention allows the signatories to set deadlines for themselves yet there a no clear sanctions yet if these deadlines have not been met.

Session 4

4.1 Guidelines for session on countries' perspective and gap analysis on legislation

4.1.1 Plans to streamline ASM Operations in Ghana

By Dr. Toni Aubynn, Ghana Minerals Commission

In Ghana, ASM Contributed 34% or 1.4 million ounces of total gold production in 2013 alone. An estimated 1 million people are directly involved in ASM and the current total valid ASM License is 1,300. Ghana's ASM sector is characterised by low production costs, intense use of manpower, low level of technology and significant environmental degradation. Although a significant source of employment and a stimulant of the local economy, artisanal and small scale mining remains underdeveloped with poor health and safety conditions. Land degradation through unsafe mining practices leads to accidents and loss of lives, especially in (galamsey) areas; destruction of crops and farm lands impacts on food production; pollution of streams and rivers result in increased costs of water treatment, rendering water unsafe for drinking; and encroachment of illegal miners on large scale concessions result in social conflicts.

There are various provisions of policy and legal frameworks in place to govern ASM in Ghana. Licences are issued by the Minister for Lands and Natural Resources which restrict artisanal and small scale mining to Ghanaian citizens. Environmental permits are issued under the Environmental Protection Agency (EPA) and operating permits are issued by the Minerals Commission. Without these three licenses and permits, any act by an individual or party is deemed illegal under the Ghanaian law. The Minerals Commission also play a lead role in the regulation of the ASM subsector through promotion of regularisation; monitoring of operations; and education and sensitisation. The Commission has 12 Regional and District Mining

Offices countrywide to facilitate licensing and extension service delivery to small scale miners. Consequently, the Ghanaian government also has other collaborating agencies and organisations that work together to regulate and monitor the ASM sector.

ASM issues cannot be solved by mining sector solutions alone. A comprehensive approach is needed to address the multifaceted challenges of ASM. Strategies to address ASM issues must have an Alternative Livelihood Component and although ASM is a national issue, local solutions within the communities have to be developed. Formalisation can also work best when ASM can be contained in one site and actively supported. The availability of sites suitable to ASM makes it easier to form a cluster and organise miners, though artisanal and small scale miners must be convinced that prospective sites hold economic promise. Moreover, the amendment of Act 703 may allow confiscation of equipment and products used for illegal activities. Geo-data and information should also be harnessed to provide suitable areas for ASM. The formalisation of ASM activities in designated areas should also be



Build or strengthen strategic business linkages between ASM, business support providers and technology supply agencies

considered as forming cooperatives and groups to support ASM with equipment and working capital where necessary. The establishment of a Competency Training Centre to train ASM in proper mining practices will also be a way forward in increasing the capacity of the miners. Local engagement through traditional authorities should also be tapped and potential development partners to support the activities of stakeholders in the ASM value chain.

4.1.2 Environmental Sustainability and ASM Experience of DRC

By Besa Muntandwe Kafola Paulin, Ministry of Mines, Democratic Republic of Congo

C'est un réel plaisir pour moi de prendre la parole devant cette auguste assemblée de l'atelier régional sur le renforcement des capacités pour un environnement durable dans l'exploitation minière artisanale et de la Mine à Petite Echelle en Afrique. L'exploitation minière artisanale longtemps décriée pour ses effets sociaux et environnementaux dévastateurs, prend de plus en plus d'ampleur et se répand dans une grande partie du monde.



A ce jour, la République Démocratique du Congo ne fait pas exception à cette réalité. Cette activité en RDC constitue en effet, avec l'agriculture, le principal moyen de subsistance. Environ 2.000.000 de personnes s'adonnent à cette activité. Vous pouvez vous imaginer l'impact que cela a sur l'environnement.

Selon le Code Minier, l'exploitation minière artisanale est légale. En effet, le Titre IV du Code Minier, complété par le Titre IX du Règlement Minier, précise le cadre légal d'organisation du secteur artisanal.

La République Démocratique du Congo, membre du Processus de Kimberley, applique la déclaration de Washington qui préconise l'atténuation des dommages à l'environnement par les exploitants miniers. Dans le cadre de la formalisation de l'exploitation minière artisanale, la RDC, membre de la CIRGL et partie prenante des résolutions de l'OCDE, exige la réparation des dommages causés par l'exploitation minière artisanale à l'environnement.

Le SAESSCAM, Service Technique du Ministère des Mines, chargé de l'Assistance et de l'Encadrement de l'Artisanat Minier, assure la formation des exploitants miniers artisanaux en philosophie et techniques de protection de l'environnement dans le cadre des opérations d'exploitation minière artisanale.

4.1.3 Perspective and gaps analysis on Legislation in Tanzania

By Gregory Kibusi, Chair of Gemstones Committee, FEMATA, Tanzania

The ASM sector in Tanzania directly employs people from 500,000 to 1,500,000 respectively. Gemstones and diamonds miners invoke more land degradation, abandoned pits, siltation and sedimentation of rivers compared to ASGM due to the alluvial mining in placer deposits. The Federation of Miners Association in Tanzania (FEMATA) was established to link regional miners'

associations (REMA) with the government, potential stakeholders and NGOs in order to implement the mineral policy and sustainable ASM sector hence increasing the contribution of the sector to the economy. So far, FEMATA has played a great role in the implementation of the mineral policy of 2009 which was extracted from AMV by creating a conducive relationship between the ASM and the government.

FEMATA has identified three major gaps in the ASM sector in Tanzania. Firstly, most of ASM in the country still use traditional methods in the whole process of mineral value chain. This can be eased by providing geological survey reports with detail information that will support ASM to acquire loans from financial institutions and other partners willing to do joint venture. Granting loans with affordable interest rates from the government and other partners should also be considered so ASM will have the capital to employ modern technologies. Secondly, the best environmental degradation players (artisans) are not recognised by the law hence imposing barriers in environmental management control and mitigation measures. Formalisation of the sector is thus highly encouraged so as the inclusion of REMAs and local governments at the district and village levels for set up of fines and by-laws that has been approved by NEMC (National Environment Management council). Finally, the value chain of mineral beneficiation from gemstones identification, pricing or valuation and marketing do not largely benefit the bottom-line. The establishment of zonal mineral auctions and promotion of fashions and jewellery will encourage value addition and close monitoring of gemstone prices.

The inclusion of local governments in setting up environmental management post closure plan will largely benefit the reduction of environmental impact of ASM. Establishing a concrete regional integration for best practice sharing in the environmental sustainability of ASM will also be beneficial to the sector in Tanzania.

4.1.4 Implementation of AMV as an integral part to ASM Sustainable Development in Kenya

By Jennifer Halwenge, OGW, Director, Mineral Promotion & Value Addition, Ministry of Mining, Kenya

Over the years Kenya has experienced the challenges in regulating the ASM sector due to exclusion of the sub-sector from the mining legal framework. ASM gives direct employment to an estimated 100,000 people across the country. Major artisanal activities are in gold panning and mining, gemstone mining, winning of sand, clay and gravel and manual aggregate production. As part of Kenya's commitment to domesticate the AMV, mainstreaming ASM in the mining sector is important.

The Constitution of Kenya 2010

Articles 62 define all minerals as public land and are vested in the National Government. Article 69(1) binds the state to ensure sustainable exploitation, utilization, management and conservation of the environment and natural resources. The Environmental Management and Coordination Act (EMCA), 1999 covers all aspects of environmental concerns. The Mining Policy and the Mining Act of 2016 give direction on the management of all mineral resources.

Mining Act, 2016

The Mining Act provides for the management of artisanal miner operations under sections 92-100. This covers permitting, establishment of county offices, compensation for use of land and sale of minerals, while sections 176 – 181 provide for health, safety and environmental conservation. The provisions cover land use, restoration and mine closure plans, Environmental protection bonds and occupational health and safety. Various mining regulations are underway and will operationalise the Mining Act.

Formalization of Artisanal and Small Scale Mining In order to ensure that the ASM access



Provide training to the ASM community in modern mining and processing methods to reduce environmental damage and degradation

Government services we plan to open offices in the Counties, starting with those currently hosting ASM activities. This is in addition to the Regional offices already in place. The artisanal miners are being organized into groups for ease of regulation and they will be given designated areas set aside for artisanal mining. The sub sector will also benefit from technical services with respect to capacity development including training, funding, marketing and environmental protection.

Kenya is a signatory to the Africa Mining Vision hence the commitment to domesticate AMV. The government, through the Ministry of Mining commenced the preliminaries towards the CMV process. A Multi-Sectoral Technical Committee (MS-TC), whose mandate is to lead the domestication process is in place. The MS-TC has carried out a comprehensive gap analysis which will guide the country in areas of priority from whence a Work plan for the CMV process will be developed. ASM has been identified as one of the key areas to be addressed in the CMV and is accordingly entrenched in the Kenya Country Mining Vision. The next major activity to kick start the domestication process will be the high level launch of the KCMV process.

The MS-TC carried out a Gap Analysis which identified gaps some of which have been addressed by the provisions of the Mining Act,

2016 and the relevant regulations are being finalized. However, the Ministry is working on a framework for formalization of ASM. A technical Committee to oversee the formalization process is in place. Other gaps identified in formalization of ASM that have not been addressed by the respective legislations will be factored in the ASM formalization framework.

4.1.5 Framework for Environmental Sustainability in Kenya

By Irene Kamunge, Director Legal Services, National Environment Management Authority

Kenya is rich in mineral resources that include fluorspar, diatomite, titanium, gold, manganese, limestone, silica and sand. There are indications that the country is also rich in rare earth minerals. Artisanal and Small Scale Mining (ASM) mainly takes in different parts of the country mainly in panning for gold, gemstone mining, winning of sand, gravel, clay and quarrying.

Environmental sustainability in artisanal and small scale mining in Kenya is regulated mainly by the Constitution; the Mining and Mineral policy, 2016; The Mining Act, 2016; Environmental Management and Coordination Act, Cap 387 of the laws of Kenya. Other sectoral environmental laws and policies such as the National Environment Policy, Wildlife Conservation and

Management Act, the Forests Act, etc. are also in place as well. These policies and laws are aligned to the aspirations of the African Mining Vision.

The Environmental Management and Coordination Act establishes strategic environmental assessments and environmental impact assessment processes and procedures, and a restoration fund. It also provides for economic incentives to support environmental sustainability. However, gaps remain despite these policies and laws. For instance, there is a need for a clear coordination mechanism for the artisanal mining sector. Technical procedures for licensing and permits e.g. EIA procedures should also be realistic to the capacity of ASM. Legislation for the protection, health and safety of artisanal mining operations is also inadequate and there are no clear incentive mechanisms to encourage technology transfer. Clear guidelines on access to credit and credit schemes are also lacking as the legislation to regulate the sale of minerals won by artisanal miners and site rehabilitation and mine closure obligations. Capacity to monitor and enforce environmental regulations should also be built as well.

Kenya has put in place a comprehensive framework for environmental sustainability in artisanal mining. The framework is mainly enshrined in the Constitution, Mining and Mineral Policy, Mining Act and Environmental Management and Coordination Act. However, there are gaps in the framework that need to be addressed in order for the framework to be effective and hence support livelihoods and entrepreneurship in artisanal mining.

4.1.6 Africa Mining Vision and Country Mining Vision Processes in Zambia

By Bonaventure Mooyachalwa Lumamba, Ministry of Mines, Zambia

Fiscal Regime and Revenue Management

In an effort to maximise revenue generation,



Zambia has tried various fiscal regimes over the last 3 years some of which were detrimental. The Government has finally settled with a fiscal regime which was negotiated with Industry and is a 'Win Win' Situation. The Mineral Royalty tax is based on a sliding scale depending on the price of copper. This ensures competitiveness even at very low copper prices. The Government also averted mine closures through this robust and resilient tax system when copper prices fell below USD \$4,500 per ton. In terms of revenue management, Zambia has embarked on a self-prescription program dubbed 'Zambia Plus', which is an economic recovery program. Additionally, the government has put up various intervention measures to control public expenditure as well.

Geological and Mineral Information System

Currently, only 62% of Zambia is geologically mapped. The Government and its cooperating partners embarked on a rigorous campaign to map the rest of the 38% of the country. Through African Minerals Geoscience Initiative (AMGI), the Ministry of Mines has signed an MOU with South Korea and another MOU with China. These mapping are currently works in progress. The Ministry of Mines is also in the process of digitising all available geological data and is building a core shed at Kapopo near Lusaka for



Train and capacitate ASM in adding value to, and marketing of mineral products, especially for gemstone miners

storage of Cores.

Building Human and Institutional Capacity

The Ministry of Mines and other relevant institutions such as the Zambia Revenue Authority have embarked on two projects, namely Mineral Value Chain Monitoring Project and Mineral Production Monitoring Support Project. The two projects are meant for enhancing mineral production monitoring from exploration to marketing and hence maximising revenue generation. The projects have components on capacity building. However, much more needs to be done in this pillar.

Mineral Sector Governance

Governance structures are always undergoing overhaul. Various efforts have been made to improve the governance of the mineral sector in Zambia including creation of new departments like Department of Planning and Department of Mining Cadastre. Ministries have also been realigned (Minesis now stand alone away from Energy and Water).

Artisanal and Small Scale Mining

The Government has made various efforts to formalise ASM through establishment of Small Scale Mining Licences, Artisanal Mining Licences and Gold Panning Certificates. It also has simplified procedures for acquiring the

above named mining rights and waived certain requirements before grant of the rights. Going forward, the Government intends to come up with tailor made legislation and fiscal regimes to support ASM.

Linkages, Investments and Diversification

The Zambian Government is promoting backward, side and forward linkages and has established Multi-Facility Economic Zones where backward and forward linkages can be attained. These zones attract a number of incentives including tax waivers.

Environment and Social Issues

The Environmental Protection Fund was established so mining companies can deposit cash upfront for environmental remediation at closure. The new Mines and Minerals Development Act of 2015 also provides for the Minister to issue statutory instruments to regulate Local Content and CSR. These are yet to be developed as there is a lot of resentment on mining by local communities.

Much has been done in Zambia towards domestication of the AMV through initiating the process of coming up with the CMV. However, there is need to harmonise various regional initiatives which will ultimately frame the CMV.

4.1.7 Legislation Pertaining to Environmental Sustainability and ASM in Nigeria

By Nnamdi Anene, Ministry of Mines and Steel Development, (ASM Department), Nigeria

The presentation focused mainly on the relevant sections of the law that governs the operations of the ASM in Nigeria in relation to environmental sustainability. It also highlighted some aspects of the national policy that align with the African Mining Vision in ensuring that robust and vibrant ASM is entrenched with the view to using it as a veritable tool to alleviating poverty in the ASM communities and ensuring that negative

externalities arising from ASM are adequately addressed for the good livelihood of host communities. The presentation then related this to what is obtained in practice. It explained some of the challenges and gaps encountered whilst implementing the provisions of the mining laws. It concluded by drawing attention to the need for gap analysis being advocated to critically examine the various contending issues that militate against the realisation of the desired outcomes of various interventions in the ASM subsector based on the existing mining law and policy.

4.2 Discussion and recommendations

The learnings and recommendations from Session 4 focused on country experiences on ASM and on how to ensure the environmental sustainability of the sector.

- Most ASM miners pursue both agricultural and mining activities. ASM does not take out miners from agriculture as experience, thus more consideration has to be taken in terms of mine closures.
- Mining policies are usually drafted for large scale mining and provisions are not targeted towards ASM. This kind of legislation does not work as one cannot scale down LSM to ASM. There are various differences between the governance and management of the sectors and these have to be taken into consideration.
- In Zambia's mining closure agreements, bonds work well for some small-scale mining operations but not really on ASM per se. What ASM needs is a tailored scheme that target all the facets of this sector. For instance, incentive measures such as cooperatives engaged in gold panning activities or giving out discounts for road payments and setting an environmental protection fund. Development of gemstones can also be given additional value by setting up regular auctions that are monitored and regulated to ensure best practices.
- Kenya has a framework in its mining act

that provides for obligations during mine closures. As with everyone else, this produces opportunities to work with ASM. There is a restoration fund that is set by NEMA and this amount is creatively used to benefit the community. Setting an environmental scheme can also be beneficial as this will target environmental restoration of areas affected by ASM activities.

Session 5

5.1 The importance of geological surveys and geo-science in improving ASM governance

By Kaiser Gonçalves de Souza, Head, Geological and Mineral Information, AMDC

Geological information is crucial for several important legal, economic, social and environmental applications. It is essential for stimulating investment to a country, formulation and implementation of public policies in resource development, environmental protection, public health, safety, and infrastructure planning. It is essential for improving transparency in the mining sector as well. The availability of geological and mineral information allows the public and private sectors to take appropriate decisions. The more accessible the information, the lower the risk of investment in exploration and development; and the greater the possibility of its practical use in areas of social and environmental interest.

The purpose of the Geological and Mining Information System (GMIS) Strategy is to identify how the AMDC, AUC, other institutions (e.g. RECs) and initiatives can best support African GSOs and centres of excellence to produce, manage and disseminate geological and mineral information necessary for several important legal, economic, social and environmental applications to allow African countries to exercise governance over their mineral wealth, hence encouraging investment in mineral exploration,

mining development and broad development processes. For the next five years, it seeks to guide AMDC and AUC to coordinate and provide strategic operational support for AU Members States, RECs and their GSOs; track, align, linking up, engage and facilitate activities from different GMIS initiatives in Africa; identify gaps and promote training and capacity building; support countries in generating and applying geological and mining information for informed policy and decision- making across the mineral value chain; identify and propose mechanisms to finance the production, management and dissemination of GMI; assist African member.

States to grow their national databases via repatriation of data and transfer of corporate geoscience data; and, provide a “think-tank” capacity.

It is expected that the GMIS Strategy and its outcomes will be particularly important to:

- Improve the elaboration and the application of policies, regulations and fiscal regime for mining

activities;

- Provide better decision-making options and improve management capacity of mineral resources and mining sector activities;
- Better assess the potential of mining projects and design optimal tenders with the real value of mineral resources;
- Facilitate price discovery for governments and support decision-making in contract negotiation through information on quality and quantity of ores in the subsoil.
- Provide governments with better options for concessions of exploration and mining permits;
- Establish judicious taxation rates and ensure that countries receive a fair share of the mineral related revenues.
- Allow a better assessment of environmental impact and sustainability of mining projects and activities;
- Monitor licences of contract and follow up mineral exploration and exploitation projects and activities.



A REC level approach to harmonise the policy and regulatory frameworks would encourage uniform practice through a regional tool kit for engagement between LSM and ASM

5.2 The importance of geological surveys and geo-science in improving ASM governance: relations with Ministries and institutional arrangements

By Rosemary Okla, AMDC

The Geological Surveys are the main repository of geoscience database of every country. Their main task is to assess potential mineral resource by continuously collecting, storing and archiving relevant geoscientific data and disseminating data and information to stakeholders such as governmental agencies, industries and the general public.

GMIS Strategy proposes different activities to strengthen geological and mineral information in different areas, including ASM. These are to facilitate the enhancement of the capacities of African Geological Survey Organizations (GSOs); contribute to regional mapping and exploration activities to upgrade mineral inventories and geoscientific information data bases; enhance the contribution of geological information for informed policy and decision-making across the mineral value chain; strengthen system-wide capacity for effective geological information management on the continent; and promote broad development processes in Africa. For easy implementation of the GMIS Strategy, a Geospatial Information Section is set up, to collect and present general data in a user friendly manner such as maps, by generating the country mining profile.

The country mining profile is proposed by AMDC to support the domestication of the country mining vision by using geospatial information, which allows easy communication between stakeholder and policy makers. It also educates stakeholder and policy makers (eg. by using maps to explain to the ASM miners the impacts their activities are having on other communities).

5.3 Mapping tool for transparency in supporting regulatory compliance: MAP-X

By Inga Petersen, UN Environment

The United Nations Environment Programmes

(UN Environment) help all countries manage their natural resources and environment to achieve the sustainable development goals while sustaining peace. It recognises that all countries share two fundamental characteristics, to transform their natural capital into other kinds of productive capital and awareness that trusted information about natural resource exploitation is a scarce commodity. Geo-spatial data in this regard is important as it creates a structure for managing knowledge and enables data sharing across departments and institutions. It also allows for critical resources to be considered in planning, policy making and implementation and is required to resolve land use conflicts, support formalisation of land ownership and ASM activities. Geo-spatial data enables sustainable use of the physical environment and acts as a catalyst for development as well. In the ASM sector geo-spatial data is essential for policy making and implementation.

MAP-X is an impartial online mapping platform that seeks to support the sustainable development of natural resources. It aggregates the best available data and assesses the integrity of the data, provides visualization and analytical tools and offers customized dashboards for managing and monitoring data. MAP-X emphasises on a co-designed platform with stakeholder ownership. Its platform design principles are fit for purpose (open source allows for infinite tailoring); stakeholder-driven and owned (across government, or wider); neutral; have applied data integrity framework; permits gradual transition to national management; and, puts emphasis on transparency and opportunities for trust building. MAP-X benefits stakeholders by giving them access to use a common pool of data and tools for problem analysis, solution identification and impact monitoring. It also makes planning processes to be more inclusive and participatory which help to build confidence among stakeholders and reduce conflict. MAP-X also improves transparency about the development impacts of the extractives and



Support individual ASM operators, associations, cooperations, communities materially and technically to adopt standards and practices that mitigate negative environmental impact

artisanal mining sector.

MAP-X is able to support ASM in knowledge management by uploading and managing of multimedia data, photos and videos used for monitoring of mining activities. For instance, it can support National Action Plans under the Minamata Geolocate through archiving field data, photos and aerial surveys and making them readily available. It has also a potential for crowd sourcing data. MAP-X can provide a full range of information management, analysis and progress monitoring functions to support knowledge management in the ASM sector and mainstream environmental transparency.

5.4 ASM Knowledge hub architecture

By Prof. Nelli Mutemeri

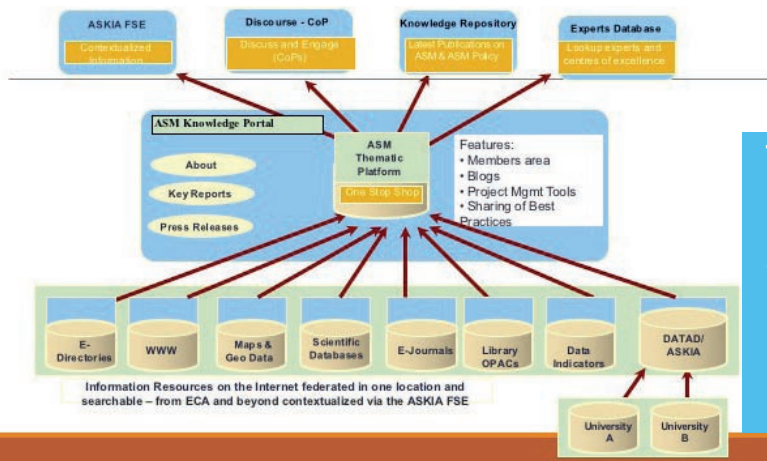
Currently, Africa has no continent-wide platform for sharing information and knowledge on the minerals sector. A coordinated generation and dissemination of information and knowledge on minerals on the African continent is also lacking along with visibility of existing information and knowledge on the African minerals sector. Particularly with ASM there are no existing

platforms that convene expertise in the sector.

The African Regional Minerals Knowledge Hub aims “to coordinate the generation and dissemination of knowledge and knowledge products, events and activities on the constantly evolving minerals sector in Africa. This would be in support of the AMDC’s outlook to be the centre of excellence for minerals sector knowledge, and the facilitator of choice in enabling the African Union (AU) Member States to realise economic and social benefits from minerals as espoused by the Africa Mining Vision (AMV).” It seeks to collect and make available different types of information and knowledge, collate existing information; generate new knowledge; act as repository of data; disseminate knowledge; provide accessibility; and implement a knowledge management framework.

The implementation of the African Minerals Knowledge Hub is divided into two phases. Phase 1 covers consultation and framework development which is composed of thematic cluster development; the establishment of the Knowledge Hub Working Group; and, resource mobilisation and consolidation. Phase 2 covers the building of the Knowledge Hub which is

ASM Thematic Portal Architecture



The Knowledge Hub (KH) roll out involves repository development where data and information are acquired and collated, and the network development.

composed of the implementation plan including resourcing and key partnerships; commission and launch; and, an inaugural share fair. Under Phase 1, the Thematic Cluster will be divided into three major categories: political economy and strategic standpoints in ASM (Frameworks, Legislation, Policies supporting formalization efforts of ASM and Geology and Mineral Information Systems); social and environmental factors in ASM (Inclusivity- gender, youth; Renewables, Climate Change and Energy Environmental management; Community engagement strategies for ASM Mercury reduction); and local linkages (Responsible Sourcing Development Minerals Markets; Access to finance).

The Knowledge Hub (KH) roll out involves repository development where data and information are acquired and collated, and the network development. The development of the network will incorporate individuals and organisations, including governments, miners, civil society, international finance institutions, private sector, general public, academia, responsible mineral supply and certification initiatives, development partners, media/journalists etc.). The KH roll out will also engage Regional economic communities (RECs) and intergovernmental organization and develop and disburse knowledge sharing products (e.g. catalogue, alerts, following trending social media hashtags on ASM, discussion groups (thematic/regional), and, newsletters).

The knowledge platform (thematic portal) will be

developed to include a dedicated website and e-forum as well. It will feature the organization of ASM material based on the AMDC-lead thematic clusters and content for website upload; the development of an ASM interactive thematic platform leveraging existing KSS Knowledge systems and tools; the development of mobile application for the new ASM platform (if/when required); a connection of the ASM platform to the AMDC website to increase connectivity and outreach; and, language options - English and French.

In particular, the ASM Thematic Portal will feature the following:

- ASM Online portal: Serve as a one stop shop to for dissemination of information on Artisanal and Small Scale Mining
- The Access to Scientific and Socio-economic Information in Africa Federated Search Engine (ASKIA FSE): Facilitate collation and discovery of knowledge from several information sources on/ from Africa through a single search
- Discourse Communities: Discussion forum for experts on ASM Topics – i.e. Formalization
- Knowledge Repository: Managing and availing publications on ASM using the latest information management standards
- Research Guides: Aggregating different knowledge types related to ASM thematic areas for special purposes i.e. hot topics, conferences, meetings, colloquiums, workshops.
- Knowledge Hub: Value added services through information contextualizing and integration

The next steps forward for the African Regional Minerals Knowledge Hub will be piloting KH with the case study countries, share ASM Strategic Framework; and the practice launch of the ASM Community.

5.5 Global Opportunities for Long-term Development in the ASGM Sector (GEF GOLD)

Susan Egan Keane, Natural Resources Defense Council

GEF GOLD aims to provide mining communities with direct access to international gold markets and/or remove barriers across the value chains. It seeks to demonstrate and share best practices on ASM formalization, pilot access-to-finance options and educate gold consumers on the social and environmental benefits of cleaner gold. Moreover, GEF Gold aims to show the benefits of more efficient and cleaner non-mercury techniques used in gold extraction.

GEF GOLD's strategy towards knowledge management, communication and outreach has two main objectives, knowledge sharing and communication of GEF GOLD projects, and, knowledge sharing and communication with the global ASGM community. The first tenet of the knowledge sharing and communication for GEF GOLD Projects is outreach to investment community and financial institutions. It also seeks to increase access to information and disseminate programme results through communication and networking. It also plans and implements media and outreach strategies that tap into multiple audiences including donors, investors, the public, governments and miners. For knowledge sharing and communication with the global ASGM community, GEF GOLD seeks to contribute to the body of knowledge and progress in the global ASGM community and interact with existing knowledge sharing initiatives without overlapping with the available platforms.

5.6 Discussion and recommendations

The Session 5 discussion and recommendations focused on the ASM Knowledge Hub and its infrastructure and GEF Gold.

- The ASM Knowledge Hub is a repository of information and is designed to be a community of practice-driven efforts. It will facilitate a community of practice that will have listed talks from different stakeholders and will be monitored closely to ensure legitimacy of information. It will also contain focal points within the region, case study reviews of pilot countries and will provide information on the ASM sector of those countries from a holistic point of view.
- The Knowledge Hub platform is designed to speak to the miner as well. Research and lack of information are one of the main obstacles in ensuring sustainable practices in ASM and this will be addressed by legitimate information and collaboration from experts. Connectivity is a big issue in the continent and this will be addressed by designing a tool that will have offline versions that would not require consistent connectivity. The architecture for the hub being designed currently will permit the use of a mobile app despite lack of internet connection. There will also be discussion boards that will be updated every time the user has connectivity.
- Communicating ASM involves using different avenues to reach out to stakeholders. AMDC has a communications strategy that goes along with the knowledge management strategy. This is relevant to the development of the knowledge hub as it will target specific audiences and distil information according to audience preference.
- The knowledge hub should promote debates and a repository of knowledge in the ASM sector. If possible, it should contain institutional and/or individual experiences and should have a space for reflection of issues in ASM.
- The knowledge hub is recommended to provide a space for miners to express their concerns and feedback as well.

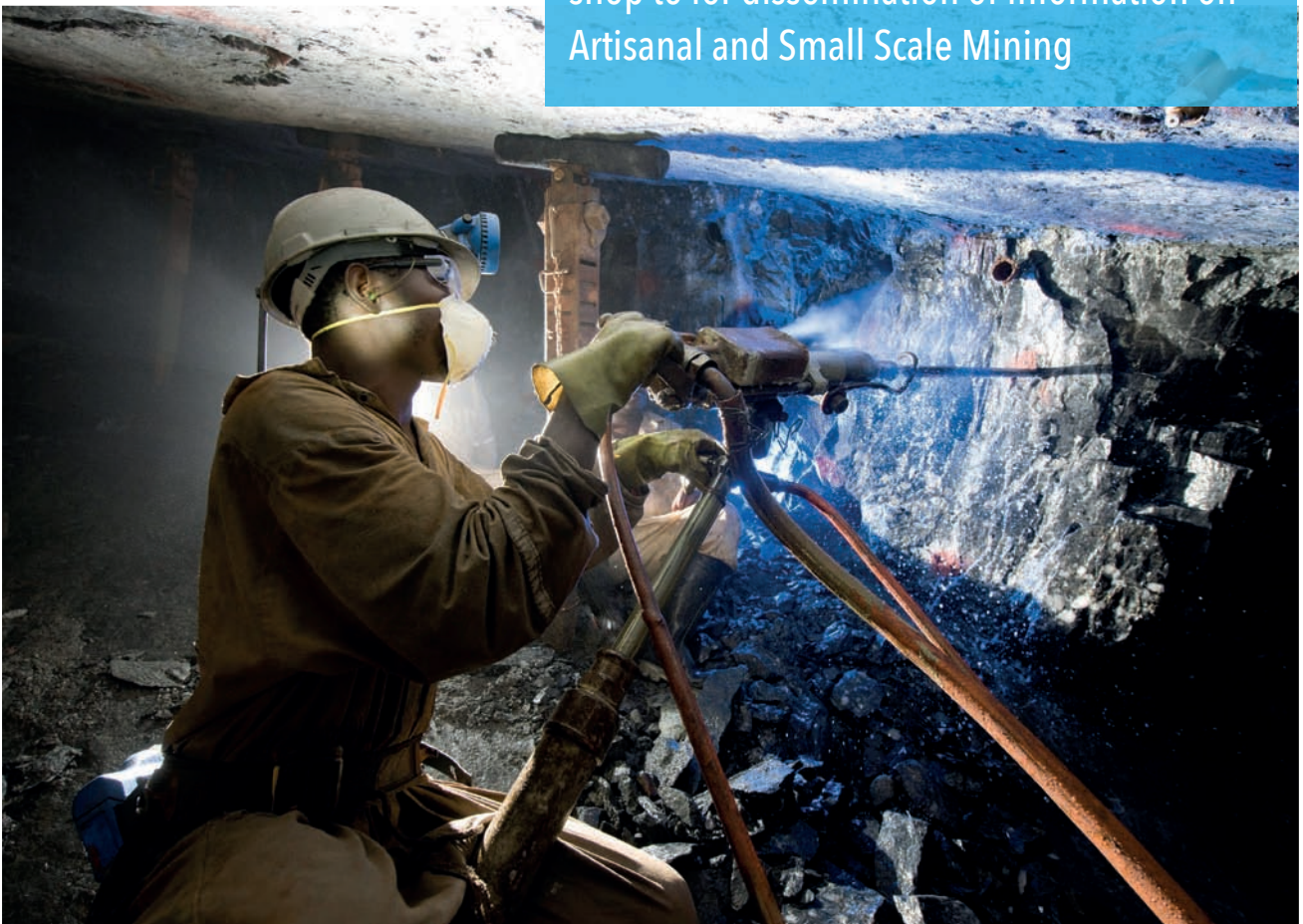
- For the knowledge hub to be successful, tools from target audiences and mining communities have to be incorporated.
- An option to use local languages, for example Swahili has to be taken into consideration.
- The knowledge hub should also provide an opportunity for the local users to be linked to the global market.
- Different communities of practice require different mediums and information. The challenge will be how to collect and curate this information from different sources. In terms of regional forums, contact of communities dealing with similar issues should be provided so that best practises and lessons learned will be easier to share.
- The knowledge hub is meant to support information gathering and disseminating. There is an ocean of knowledge and turning that to

implementation is really difficult. What could help with the curation of information is to make sure that the experts curating the information are well-connected to the bottom-line to provide relevant and high-impact information.

GEF Gold

- The GEF Gold project is designed to attract investors and to link technology providers to them. The current technology is relevant and there is a vast opportunity to invest in the sector.
- The project will be sustainable a long as the Minamata convention is sustainable. GEF is the financial mechanism for the convention and does not leave out other aspects of mercury use.
- The vast majority of the GEF funding is allotted to country projects.

ASM Online portal will serve as a one stop shop to for dissemination of information on Artisanal and Small Scale Mining



Conclusion and Recommendations

The “Building Capacity for Environmental Sustainability in Artisanal and Small Scale Mining in Africa” workshop was part of the global strategy of the United Nations Environment Programme (UN Environment) on environmental governance of the extractive sector and the African Minerals Development Centre (AMDC) in its sensitisation of the Africa Mining Vision (AMV). As adopted by the African Union Summit in 2009, the AMV recognizes that harnessing Africa’s natural resource endowment on a sustainable basis is critical for Africa’s development.

The joint UN Environment-AMDC workshop was planned to initiate regional platforms for dialogue and capacity development at the regional level, to engage with countries and key partners on issues related to mining. The meeting also focused on the implementation of the Africa Mining Vision through respective Country Mining Visions in the context of artisanal and small-scale mining. It was a joint endeavour to promote an integrated approach in support of multi-stakeholder concerted efforts for safer and more sustainable environmental practices in artisanal and small-scale mining development, supporting collaboration at the regional level.

The workshop was able to increase awareness and understanding of regional and country needs and perspectives on the challenges of improving environmental governance of artisanal mining including formalisation processes. Perspectives

from Zambia, the Democratic Republic of Congo, Tanzania, Ghana and Kenya in artisanal and small scale mining development were shared in a robust discussion of different challenges and opportunities of the sector. Available tools and best practices in the environmental governance and formalisation processes of ASM were also presented. Key agencies, partnerships and synergies have been identified as the workshop were represented by key organisations such as the UNDP, STAMICO, SDC, Natural Resources Defense Council, Estelle Levin LTD and OSISA. Opportunities for knowledge management synergies have also been identified between different initiatives, organisations and stakeholders, and in particular the proposed Artisanal and Small Scale Mining Knowledge Hub was recognised as a possible repository of knowledge and information for the ASM sector.

The workshop put forward recommendations for the development of the artisanal and small scale mining sector in Africa. Firstly, the development of the ASM sector should be seen from a holistic point of view and not in isolation. Addressing different challenges in the sector requires a multi-stakeholder approach and a framework that is development-oriented. In this regard, the Africa Mining Vision is fundamental as it seeks to advance an integrated and sustainable development of mineral resources. Partnerships between different organisations and expertise such as that of UN Environment and

AMDC should be harnessed in order to ensure environmentally and socially compliant practices. Secondly, the formalisation process of ASM starts off in its recognition as a vital part of the mineral value chain and thus, overall economy. Impacts of the ASM sector should not be minimised as its externalities and linkages are far-reaching. The involvement of ASM miners and ASM communities in the legislation and policymaking processes thus prove to be imperative in order for initiatives and interventions to be successful. Consequently, creative strategies through incentive mechanisms and financial schemes should be developed to further environmental sustainability of ASM activities. Synergies, partnerships and joint-projects are also necessary to inform policymaking and implementation activities. Finally, information gathering and dissemination proves to be vital in the entire ASM value chain. Issues on the environment, human rights, technology, financial access. in the ASM sector can be initially addressed through information sharing. In this, the Artisanal and Small Scale Mining Knowledge Hub will be a fundamental step in consolidating and disseminating information in the ASM sector.

Directory



Besa Muntandwe Kafola Paulin
Ministry of Mines
Democratic Republic of Congo



Kitembo M'Pombo Patrick
Ministry of Mines
Democratic Republic of Congo



Luc Lenge Asosa
Pact Programme Manager
ICGLR
Democratic Republic of Congo



Shiferaw Negash Bira
Ministry of Environmental and
Climate Change
Ethiopia



Nii Adjetey Mensah
Artisanal Mining Network
Ghana



Jennifer Atieno Halwenge
Director, Mineral Promotion & Value
Addition, Ministry of Mining
Kenya



Irene Wanjiru Kamunge
Ministry of Mining Advisor
Kenya



Monika Mwhaki Gichuhi
CS Advisor, Ministry of Mining
Kenya



Nnamdi Chukwuemeka Anene
Ministry of Mines and Steel Development, ASM Principle Geologist
Nigeria



Tuna Butambala Bandoma
Manager, Small Scale Mining
Tanzania STAMICO
Tanzania



Willison Mutagwaba
MTL Consulting
Tanzania



Gregory Kibusi Gallid
Chairs of Gemstone Committee
FEMATA
Tanzania



Jennifer Hinton
Auranda Minerals
Uganda



Mwanga Simate
Zambia Ministry of Lands and Natural Resources
Zambia



Bonaventure Mooyachalwa Lumamba
Ministry of Mines
Zambia



Nqobizitha Dube
Ali Douglas Research Network
Zimbabwe



Andrew John Cooke
Estelle Levin Ltd.



Gerard Bayuburundi
Coordinator of the Technical Unit on
Natural Resources
ICGLR



Maria Laura Barretto
Alliance for Responsible Mining



Prof. Nelli Mutemeri
University of Witswatersrand



Patience Singo
Swiss Agency for Development
Cooperation



Percy Fungayi Makombe
OSISA/SARW
South Africa



Susan Egan Keene
Natural Resources Defense Council



Lacina Pakoun
UNDP



Inga Petersen
UN Environment



Dr. Margaret Oduk
UN Environment



Teayeon Kim
UN Environment



Charles Akong
Linkages and Diversification Expert
AMDC



Dr. Kojo Busia
Coordinator
AMDC



Daisy Diamante Leoncio
Communication and Advocacy
Manager
AMDC



Kaiser Gonçalves de Souza
Head, Geological Information
AMDC



Maharouf Adedayo Oyolola
Economics Officer, Gender
AMDC



Mayer Ngomesia
Mineral Sector Governance Advisor
AMDC



Mkhululi Nkosilamandla Ncube
Artisanal and Small Scale Mining Lead
AMDC



Paul Msoma
AUC-AMDC Liaison Officer
AMDC



Rosemary Okla
AMDC



Building Capacity for Environmental Sustainability in Artisanal and Small Scale Mining in Africa

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