

A COUNTRY MINING VISION GUIDEBOOK

Domesticating the Africa Mining Vision



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FOREWORD

ABOUT THIS BOOK

ABOUT THIS BOOK

This guidebook is the product of the collective efforts of mainly African experts in the field of mining, economic and political governance, fiscal policies, environmental, geological, and development issues drawn from governments, civil society, academia and development partners.

Using the Book Sprint technique, the contributors began their work in Debre Zeit near Addis Ababa in Ethiopia on Monday 15 September and finished on Saturday 20 September, 2014.

A Book Sprint is a facilitated process through which a group of contributors with a wide range of expertise and perspectives come together to write a book collaboratively.

Building on ongoing efforts in a number of African countries to domesticate the Africa Mining Vision, the writers started with a title only, spent a day deciding on an outline, and then wrote, illustrated, edited, proofread and “published” the book in the remaining five days.

Building the book in a Sprint has resulted in a comprehensive resource that benefits from the dynamic interaction of a diverse group of leading experts working at the intersection of extractive and social and economic development.

This book is therefore the product of an intense teamwork, not group think, nor a consensus document.

This guide should be considered a living document whose implementation will generate further lessons and good practices emerging from countries engaged in the Country Mining Vision process.

Whilst acknowledging the leadership of the African Union Commission, the African Minerals Development Center would like to thank its implementing partners – the African Development Bank, the United Nations Economic Commission for Africa and the United Nations Development Program – for the support provided in the production of this Book Sprint. AMDC would also like to thank the German Federal Ministry for Economic Cooperation and Development (GIZ) through GIZ, for their technical and financial support to this innovative exercise.

AMDC hopes that this guidebook will provide decision makers and stakeholders with clear and simple guidelines and options for aligning their mining policies to the goals and objective of the Africa Mining Vision.

In conclusion, AMDC would also like to thank all the contributors to this book:

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INTRODUCTION

**OBJECTIVES OF THE COUNTRY MINING VISION
GUIDEBOOK**

THE AFRICA MINING VISION

**RATIONALE AND JUSTIFICATION OF THE COUNTRY
MINING VISION**

CMV AS A PROCESS AND PRODUCT

OBJECTIVES OF THE COUNTRY MINING VISION GUIDEBOOK

The objectives of the Country Mining Vision (CMV) guidebook are to help member States domesticate the Africa Mining Vision (AMV) at the national level through a multi-stakeholder consultative process with a view to formulating a shared vision on how mineral resources exploitation can promote broad-based development and structural transformation of their respective countries.

The guidebook offers a step-by-step guide for strategic assessment, identification of instruments for policy dialogue, and mechanisms for conducting stakeholder consultation, along with the steps for policy design and for the formulation of a CMV implementation, monitoring and evaluation tool.

THE AFRICA MINING VISION

The Africa Mining Vision (AMV) was adopted in February 2009 by the African Union Assembly of Heads of State and Government as the key continental framework to promote mineral resource-based development and structural transformation on the continent. It seeks to foster a *“transparent, equitable and optimal exploitation of mineral resources to underpin broad-based sustainable growth and socio-economic development.”*

This shared vision will comprise:

- A knowledge-driven African mining sector that catalyses and contributes to the broad-based growth and development of, and is fully integrated into, a single African market through:
 - Downstream linkages into mineral beneficiation and manufacturing;
 - Upstream linkages into mining capital goods, consumables and services industries;
 - Sidestream linkages into infrastructure (power, logistics; communications, water) and skills and technology development (HRD and R&D);
 - Mutually beneficial partnerships between the state, the private sector, civil society, local communities and other stakeholders; and
 - A comprehensive knowledge of its mineral endowment.

- A sustainable and well-governed mining sector that effectively garners and deploys resource rents and that is safe, healthy, gender and ethnically inclusive, environmentally friendly, socially responsible and appreciated by surrounding communities;
- A mining sector that has become a key component of a diversified, vibrant and globally competitive industrialising African economy;
- A mining sector that has helped establish a competitive African infrastructure platform, through the maximisation of its propulsive local and regional economic linkages;
- A mining sector that optimises and husbands Africa's finite mineral resource endowments and that is diversified, incorporating both high value metals and lower value industrial minerals at both commercial and small-scale levels;
- A mining sector that harnesses the potential of artisanal and small-scale mining to stimulate local/national entrepreneurship, improve livelihoods and advance integrated rural social and economic development; and
- A mining sector that is a major player in vibrant and competitive national, continental and international capital and commodity markets.

The pathways (Box 1) to the implementation of the AMV require a concerted effort to domesticate it at national level and ensure that its key tenets are incorporated in relevant national visions, policies, laws, regulations, standards and procedures. The domestication process will be country and context specific – there is no one size that will fit all countries – and be facilitated through

the formulation of Country Mining Visions, the object of this Guidebook.

BOX1 : Pathways to the implementation of the AMV

The AMV is an ambitious change-making process. The pathways to the implementation of the AMV require an analysis of the change process that the AMV aims to unleash. This should be complemented by an effort to develop an understanding of the political economy of mineral resources extraction and the challenges confronting the sector. The exercise should include the design of a change trajectory or pathway with a supporting SWOT analysis to identify the strengths, weaknesses, opportunities and threats to the realisation of the AMV.

A deliberate effort should be made to identify the key state and non-state actors and boundary partners (at all levels, in Africa and beyond) that can support the implementation of the Vision and the nature of their interventions.

The process also includes (i) the articulation of the logical sequence of interventions from inputs to impact; (ii) multistakeholder dialogue among partners on the values, motivation, incentives, worldviews and philosophies of change; and (iii) making explicit the partners' underlying assumptions of how and why change will happen as an outcome of the initiative. The assumptions explain the relationship and causal links between early (quick wins),

intermediate and long-term outcomes and the expectations about how and why proposed interventions will bring them about. Such assumptions need to be interrogated with the view to strengthening the case to be made about the plausibility of the theory underpinning the change trajectory, and the likelihood that stated goals will be accomplished. Risk analysis would support the latter.

As a road map, the pathways to the implementation of the AMV describe the types of interventions (at national, sub-regional and continental levels) that could contribute to the realization of the AMV key tenets, as reflected in the AMV Action Plan, and to the achievement of the outcomes depicted in the result areas of the African Minerals Development Centre (AMDC) Business Plan, the one-stop-facility established to coordinate the implementation of the AMV at the continental level. The road map can be an efficient tool for planning, strategy setting, programme delivery, identification of boundary partners, partnership building, and division of labour for the implementation of the AMV.

The outputs of the exercise would thus include a coherent change narrative, a delivery roadmap with tasks and responsibilities, mutual accountability statements, an agreed logframe, and an outcome-oriented monitoring framework and evaluation approach.

RATIONALE AND JUSTIFICATION OF THE COUNTRY MINING VISION

The Africa Mining Vision (AMV) as a blueprint for achieving developmental goals from mineral resources is already established. Its principles, goals, objectives and action plan are fully endorsed by expert panels and AU decision-making processes, technical and political merits, including the AU Assembly of Heads of State and Government.

Migrating the AMV at country level is a necessary step towards the realisation of the Vision. The Country Mining Vision (CMV) has been conceived as a tool to facilitate the domestication of the AMV at country level. However, its implementation raises critical challenges for African member States. The alignment of the AMV to a country's overall development vision requires member States to promote and implement a new paradigm that serves medium and long-term objectives for structural economic transformation and inclusive growth.

CMVs and AMV-compliant mineral policies should be designed as critical components of national efforts aimed at achieving a country's developmental objectives. The CMVs are not intended to replace sectoral national mineral policies. Indeed, not all countries would need to formulate a CMV. The exercise is worth doing in major mineral economies, where by virtue of the

importance and significance of the extractive sector in the local economy and its unexplored propulsive potential to unleash structural transformation, it is important to improve inter-sectoral coordination, sequence interventions and investments better, and build a broad coalition for change. The CMV can provide this high-level coordinating policy and institutional framework, for it is formulated on the understanding that the promotion of mineral resource-driven development and structural transformation is a joint national responsibility dependent on the contribution of a broad-range of stakeholders, including different government departments, private sector, labour, local communities, CSOs, academia, media and other interest groups.

The CMV is expected to be grounded in the political economy of a country's policy-making and reform process. It aims to capture national aspirations and views on the developmental role of the minerals sector and generate a shared blueprint (the vision) on mining and development as well as an integrated implementation plan and a road map for all sectoral ministries, reflective of their shared role in development. Thus, the CMV should ensure that the extractive sector is fully included and embedded in national development plans and strategies.

In addition, the CMV would require the alignment of national policies to the AMV, premised on the fact that mineral policies at the country level are instruments which provide the strategic direction for developing mineral resources. Thus, mineral

policies, well articulated and developed in a fully participatory process, must be fully enabled by the legal and regulatory framework. Furthermore, aligning existing legal and regulatory frameworks to the aspirations of the AMV and best practice standards should therefore constitute a priority for the design and implementation of innovative and developmental national mineral policies. This implies that legal and regulatory frameworks may need restructuring to accommodate the developmental outcomes of the AMV.

The involvement of a broad range of stakeholders from society (communities), business and government, parliamentarians, civil society and journalists in developing the CMV will create support rooted in collective national ownership to ensure continuity beyond electoral cycles.

CMV AS A PROCESS AND PRODUCT

The CMV is a bottom-up and a top-down process rooted in collective national ownership. As a multi-stakeholder consultative process, the CMV allows for a critical review of different perceptions about what constitutes mineral benefits (e.g. maximization of revenue streams; fostering job creation, technology acquisition and skills development; enabling local processing and beneficiation; accelerating local content, linkages and resource-based industrialization and economic diversification; upholding the highest environmental standards and social norms; respecting human rights; and optimizing the use of resource-based infrastructure to open-up opportunities in other sectors of the economy) and about how these benefits can be best generated and optimally distributed to the benefit of all.

The CMV process requires a good understanding of the challenges confronting the extractive sector; an appreciation of the geopolitics and political economy of mineral resource extraction as well as the social dynamics arising from it; identification of key actors and their potential roles; and an honest and realistic discussion of the structural and enabling factors that can support or hinder the realization of the vision. The formulation of a collective agenda would necessitate trade-offs, accommodation and compromises.

To ensure cohesive government interest, policy complementarity and high-level commitments and action, it is recommended that the CMV process is championed at the highest possible political level (President or Prime-Minister). This can reduce duplication of efforts and ensure policy coherence, institutional cohesiveness and seamless and well-synchronized interventions among government departments.

However, for practical reasons, strong consideration should be given to vesting the coordination of the CMV process to the Ministry responsible for Mineral Resources Development. As a road map, the CMV will be designed and implemented through participatory processes which are underpinned by the participation of all stakeholders.

The CMV process can serve as an incentive for enhanced coordination in the executive branch, and as an instrument for improving coordination across government agencies over a longer time horizon than the fiscal year. It should be the result of a collective and comprehensive multi-stakeholder consultative process. The stages of this process include the formulation of a country theory of change and transformation for the mineral sector, review of current policies and the design, implementation and monitoring of a CMV or AMV-compliant mineral policy. The CMV can also create a unique opportunity and platform for improved coordination and targeting of development partners' interventions and technical assistance in the mineral sector.

By design, the CMV is both a “big picture” visioning tool and an implementation instrument. As a product, the CMV will result in the formulation of a common vision of how to harness mineral resources for broad-based development and economic transformation. Its design should reflect national development priorities and ambitions as well as inform the content of planning and budgeting instruments such as Poverty Reduction Strategy Papers (PRSPs) and Medium-Term Expenditure Frameworks (MTEFs). It should also serve as an instrument to promote synergies with planning at regional level (Resource Corridor; Spatial Development Initiative).

The formulation of the CMV will be informed by the AMV Action Plan. Its key focus areas (which are described in detail in the subsequent chapters of the guidebook) are:

- Fiscal regime and revenue management (Chapter 5);
- Geological and mineral information systems (Chapter 6);
- Building human and institutional capacity (Chapter 7);
- Artisanal and small-scale mining (Chapter 8);
- Mineral sector governance (Chapter 9);
- Linkages, investment and diversification (Chapter 10); and
- Environment and social issues (Chapter 11)

The formulation and implementation of the CMV requires a robust communication and outreach strategy (Chapter 4).

In summary, the CMV process could include the following set of activities:

- The organization of a high-level multi-sectoral and multi-stakeholder High Level Roundtable and Dialogue on Extractives to launch the CMV process;
- Undertaking of a local and international scan to better understand the structural and enabling factors for the realisation of the AMV at the national level;
- Conducting a thorough and multi-sectoral review of existing legal, institutional, policy and regulatory frameworks with regards to compliance and alignment with the AMV and existing national development goals;
- Formulation of the CMV;
- Development of a CMV Implementation Plan or Business Plan integrating mining into national development visions, plans and poverty reduction strategies;
- Formulation and implementation of an effective Communication Strategy for dialogue around issues on extractives and development;
- Provision of technical support to stakeholders at local and national levels to create an on-going space for informed dialogue on extractives to facilitate consultations with local communities and national stakeholders; and, ultimately
- Enhancing capacity for long-term visioning, strategy setting and integrated development and planning as well as creation and implementation of policy, legal and regulatory framework saligned to the AMV.

PROCESSES

INTRODUCTION TO PROCESSES

COORDINATING BODY

ANALYSIS

STAKEHOLDER ENGAGEMENT

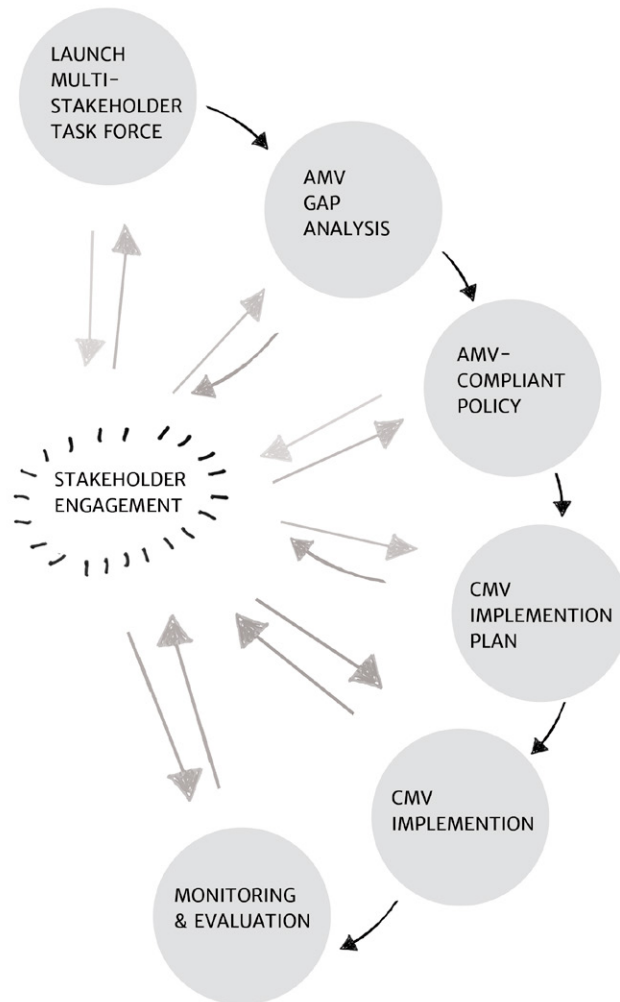
CMV IMPLEMENTATION, MONITORING AND EVALUATION

INTRODUCTION TO PROCESSES

This chapter provides a step-wise road map for developing and implementing a Country Mining Vision (CMV). The process may include:

1. Establishment of a coordinating body
2. Analysis
3. Implementation plan
4. Implementation
5. Stakeholder engagement throughout the above steps
6. Monitoring and evaluation

CMV domestication process



COORDINATING BODY

The formulation of the CMV requires the establishment of a coordinating body or task force whose responsibility includes providing oversight for the process of developing the CMV. Optimally, the Ministry responsible for mineral resources development could serve as the focal point and secretariat of the coordinating body. As the lead government institution responsible for implementing policies in the extractives sector, the Ministry will be responsible for inter-departmental and sectoral coordination mechanisms and enforcement of legal and policy regulatory frameworks and interventions supporting the CMV at the country level. It will also provide expert inputs to lead the formulation of a comprehensive and coherent national policy and strategy fully consistent with the AMV.

As a focal point of the CMV process, the Ministry could also be entrusted with the responsibility of bringing coherence and alignment in the country's sectoral policies, strategies and plans which have a bearing on the extractives sector. In addition, the Ministry responsible for mineral resources development will be the main agency for managing the multi-stakeholder consultations and implementing the CMV communication strategy.

All relevant government ministries should be represented on the task force. This would promote inclusive national ownership and participatory commitment through the different stages of the

processes (policy review, design, implementation, monitoring and evaluation).

It should be noted that where there is an existing platform for multi-stakeholder coordination for the extractive sector (e.g. the Extractive Industry Transparency Initiative (EITI) multi-stakeholder group (MSG)), it may be more effective to consider widening their mandate than establishing a new body. This could be determined during the Scoping Phase.

The Coordinating Body may take 2 forms, namely:

1. Government-led multi-stakeholder task force; or
2. Inter-Ministerial task force

Government-led multi-stakeholder task force

This task force will be charged with the responsibility of providing oversight for the process of developing the CMV.

Inter-Ministerial task force

This task force is comprised of Ministries whose portfolio is key to the attainment of resource-driven growth and development. These include ministries of finance, economic development and planning, ministries responsible for infrastructure development, central banks, revenue authorities, environment, labour, to name

a few. The mandate of this task force would be the same as for a Government-led multi-stakeholder taskforce. This option has been adopted in Lesotho where all government ministries are part of the inter-ministerial taskforce on the policy making process. A multi-stakeholder group was established in the case of Lesotho as a platform for interaction and discussion in the policy making process. The multi-stakeholder group participated in the STEEP process which developed inputs into the Green paper and validated the White paper.

To carry out its functions, the task force will develop its own terms of reference and a work plan.

ANALYSIS

The overall objective of this stage of CMV formulation is to establish the country's level of alignment to the key tenets of the AMV and to identify the challenges and opportunities for its realisation. The results of the analysis will help identify priorities and inform the formulation of an implementation plan. The options could be adopted to conduct the analysis:

1. Multi-level analysis; or
2. Strategic assessment

Multi-Level Analysis

Local Scan

The starting point of the CMV should be the formulation of a country theory of change and transformation for the mineral sector. This should involve a thorough review of the local political economy of the extractive industry, a deep appreciation of the local incentives for change and power dynamics, and a mapping of the interests of different social groups. The local scan should analyse the country's mineral endowment, the role of the mining sector in the economy, actors in the sector, various domestic policy and strategic frameworks, laws, institutions, and mineral sector governance processes. This analysis will also entail examining the country's regional and international

obligations, and implications for the policy environment including the development of linkages and diversification. The local scan should be informed by the AMV Action Plan.

International and Regional Scan

The international and regional scan compares the existing extractive industry's institutional, legal and regulatory frameworks, and other country experiences against AMV Principles and international practices. It serves as a tool for countries to benchmark themselves against their peers and also learn from experiences of other countries. The scan reviews the international operating environment, including mineral industry investment trends (main investors and target minerals), capacity and capital flows, mineral price developments as well as other socio-economic developments impacting on the sector.

The local and international scan reports allow the stakeholders to identify local policy, institutional and environmental gaps.

Strategic Assessment

This option may be undertaken by mineral frontier countries to scope the geological and exploration, production and economic potential and impact. The assessment should also look into policy, regulatory and institutional frameworks as well capacity needs in the country.

CMV Diagnostic Tools

There are several diagnostic tools that member States could use to support the CMV analytical process. Among these are the Mineral Value Management (MVM) tool of the World Economic Forum, and the STEEP process. The former was applied in 2013 in Mozambique and the latter in 2013–14 in the Lesotho mineral policy formulation exercise.

MVM

The MVM is a multi-stakeholder analytical tool that captures the views, perceptions, priorities and concerns about mineral development in a country. As a collaborative process for stakeholder engagement, it seeks to reduce a mismatch between expectations and reality with the view to promoting a shared understanding of the costs and benefits of mineral resources development. It focuses on specific and easily quantifiable value dimensions, namely:

- (i) fiscal flows (tax, royalties, levies and fees);
- (ii) employment and skills development;
- (iii) environment dimensions;
- (iv) social cohesion, cultural and socio-economic;
- (v) procurement and supply of goods and services;
- (vi) linkages, diversification, beneficiation and downstream industry;
- (vii) enabling resource-based infrastructure for broad-based development.

The approach analyses the structural (inherent nature of a country and its resource base and the mineral sector as well as a country stage of economic development and maturity of minerals industry) and enabling (structure and capacity of government and institutional environment, capacity and willingness of private sector as well as levels of trust, collaboration and influence of stakeholders) factors in mineral value creation.

The STEEP Process

This is both a diagnostic tool and a tool for building consensus and prioritization in a full participatory multi-stakeholder consultation process involving government (all Ministries and other entities), the private sector, communities, CSOs, media, parliamentarians and other social groups. Although the core issues addressed in the STEEP process are and should be drawn from the AMV programme clusters, the process allows for the stakeholders to identify other issues that are specific and pertinent to their environment and these would have been derived from a comprehensive local scan. The STEEP process evaluates each issue based on the following diagnosis which considers; social issues (S), technological issues (T), economic issues (E), environmental issues (E) and the policy environment pertinent to the sector (P), hence the acronym STEEP.

The process is both interactive and iterative. It enables stakeholders to identify and prioritize issues and challenges as well as propose actions to address the challenges in a fully participatory manner. The multi-stakeholder character of

the STEEP process builds ownership across all stakeholders and should continue throughout the CMV implementation process.

Lesotho Policy Process



STAKEHOLDER ENGAGEMENT

The objective of the stakeholder engagement is to create a common understanding, interest and commitment to the CMV process. The CMV task force is also charged with the responsibility of developing a stakeholder consultation plan alongside a communication plan. The engagement has to be undertaken at every stage of the process. This could involve:

1. Stakeholder mapping;
2. Stakeholder consultations on the findings of gap analysis to identify priorities;
3. High-level Dialogue on the extractive sector
4. Contribution to the definition of roles and responsibilities as well as formulation of an implementation plan; and
5. Stakeholder participation in the implementation, monitoring and evaluation process.

The stakeholder engagement entails mapping of relevant stakeholders from different interest groups including: government, civil society, communities, mining association, academia, trade unions, women's groups, religious groups, business, media and parliamentarians, among others.

High-level Dialogue on the extractive sector is a key feature of the CMV process. Ideally and as practiced in Mozambique (on 28 November 2013), the dialogue should be launched by the highest

country magistrate (Head of State or Prime Minister), who by virtue of his/her position can use the event to underscore the importance of the exercise and mobilise the necessary levels of participation, coordination, enthusiasm and excitement for the exercise.

Appropriate methods should be devised for communicating effectively with all stakeholders about the nature and substance of the CMV consultation. This may include translating documents into local languages. Key documents such as the international and local scans, strategic assessment of the mining sector, key tenets of the AMV, should be circulated to all stakeholders in good time to allow them effective participation in the consultative process. In addition to stakeholders in the consultative process, the communication plan should contain a plan for building interest and awareness in the wider public.

Multi-stakeholder meetings and consultations should be organized in a manner that allows effective participation and inputs from all stakeholders. The participation of stakeholders in the consultation process could combine direct communication with the agency leading the consultation, or in multi-stakeholder meetings convened during all phases of the CMV process. The suggested establishment of a multi-stakeholder Steering Committee could facilitate this process.

CMV IMPLEMENTATION, MONITORING AND EVALUATION

Gap analysis and initial stakeholder consultations identify the gaps and outline priority actions to facilitate the domestication of the AMV through the development of the CMV.

The implementation of the CMV is country-specific and will depend on local factors including the level and stage of mineral sector development. In countries without minerals policies, the process could begin with a fully participatory policy formulation process followed by the development of legislation and the setting up of requisite institutions and strengthening of existing ones.

The policy-making process will be under the supervision of a Task Force. An implementation plan for the policy will be developed in a fully participatory manner. The plan should include implementable actions, responsible agencies, timelines and milestones to enable monitoring and evaluation of the process. It can serve as an entry point to channel development partners' interventions and technical support to the sector, as well as ensuring its effective coordination.

Multi-stakeholder working groups could be formed to monitor specific aspects of the CMV implementation plan and report to the task force.

AMV-CMV COMMUNICATION STRATEGY

GOAL

PROBLEM STATEMENT

**NATIONAL COMMUNICATION STRATEGY
ON AMV-COMPLIANCE AND CMV**

GOAL

The goal of the communication strategy is to enable informed participation and foster ownership by all stakeholders at the different stages of the Country Mining Vision process.

PROBLEM STATEMENT

Minerals, gas or oil discovery often trigger an explosion of unrealistic public expectations. Governments are often under huge pressures from firms and public opinion to accelerate plans for prompt exploitation and wealth generation. Empirical evidence clearly shows that citizens and stakeholders do not automatically become informed about real implications of resources discovery and endowment.

Moreover, mining issues are among the most vigorously contested and discussed in Africa's mining countries. In most countries, stakeholder engagement around these issues is fragmented and uneven. The shortcomings of stakeholder communication and engagement on mining issues is an element of the more general problem of weak and unbalanced policy engagement of government, citizens and the private sector, and their bilateral engagements.

Adequate understanding of economic, social and environmental impact of extractive industries should be promoted in order to foster informed participation by all stakeholders in a CMV process as well as in the alignment of existing mineral policies and legislation to AMV goals.

The lack of required skills and capacities by Governments and policy makers in generating and delivering effective public messages on the impact of extractive investments and mineral

projects might also represent a key challenge for the design and implementation of the CMV.

A national communication strategy is therefore critical in order to ensure that the AMV transformative agenda is better known at national level and that all stakeholders understand the critical role that the Country Mining Vision intends to play in order to support the implementation of national development goals.

NATIONAL COMMUNICATION STRATEGY ON AMV-COMPLIANCE AND CMV

The CMV design process requires an effective communication strategy. This is critical to achieve effective stakeholder engagement. Such a strategy should be conceived as a comprehensive package of well-targeted messages and narrative on the developmental and transformative role that an innovative or reformed extractive sector is expected to play.

In particular, the strategy should also contribute to:

- Enhancing awareness and understanding of the AMV and of the CMV by ALL national stakeholders, and promoting informed participation and ownership at all stages of the design and implementation of the CMV;
- Fostering realistic expectations on mining contribution to the implementation of national development plans;
- Promoting wide popularization and understanding of the game-changing ambitions that the Country Mining Vision process embodies;
- Increasing acceptance and ownership of the CMV process; and
- Increasing access to information and knowledge packaging in order to improve analysis and decision making by stakeholders.

Government representatives, members of Parliament, the private sector, extractive-affected communities, women and youth

groups, CSOs, the labor unions, and journalists should be the main targets of a comprehensive reaching-out and advocacy campaign that aims at ensuring wide and informed participation and inclusiveness in the design and implementation process of national mining visions.

FISCAL REGIME AND REVENUE MANAGEMENT

AMV GOALS

PROBLEM STATEMENT

FISCAL REGIME AND REVENUE CAPTURE

REVENUE USE AND MANAGEMENT

AMV GOALS

“Obtaining an adequate share of mineral revenue and utilizing it in an equitable manner is crucial. An efficient and transparent fiscal regime should catalyze social, physical and knowledge infrastructure development.” -- The Africa Mining Vision (2009)

Translating mineral wealth into overall economic development and enriching the lives of citizens paradoxically remain the bane of many resource-rich African countries. Two key challenges facing mineral-rich countries are first how to design the revenue sharing arrangements between host country and investors, and second how to manage the revenues for the greatest public benefit. This chapter provides a guide that countries should consider in designing their own pathways to achieving the outcomes envisaged by the Africa Mining Vision as formulated in the AMV Action Plan:

Expected Outcome 1: Optimize the share of mineral revenue accruing to resource-rich economies -- based on AMV Action Plan (2013)

Expected Outcome 2: Improved management and use of mineral revenue - AMV Action Plan (2013)

PROBLEM STATEMENT

Governments face complex and often difficult decisions in the design of a fiscal regime for mining revenues which will at the same time optimize the share of mineral revenues that accrue to the government, improve management and use of mineral revenues, and facilitate the achievement of optimal revenue-sharing arrangements.

In designing the various measures which comprise the fiscal regime, the objectives of government (as resource owner on behalf of citizens) need to be balanced against those of investors (as providers of risk capital and technology of extraction).

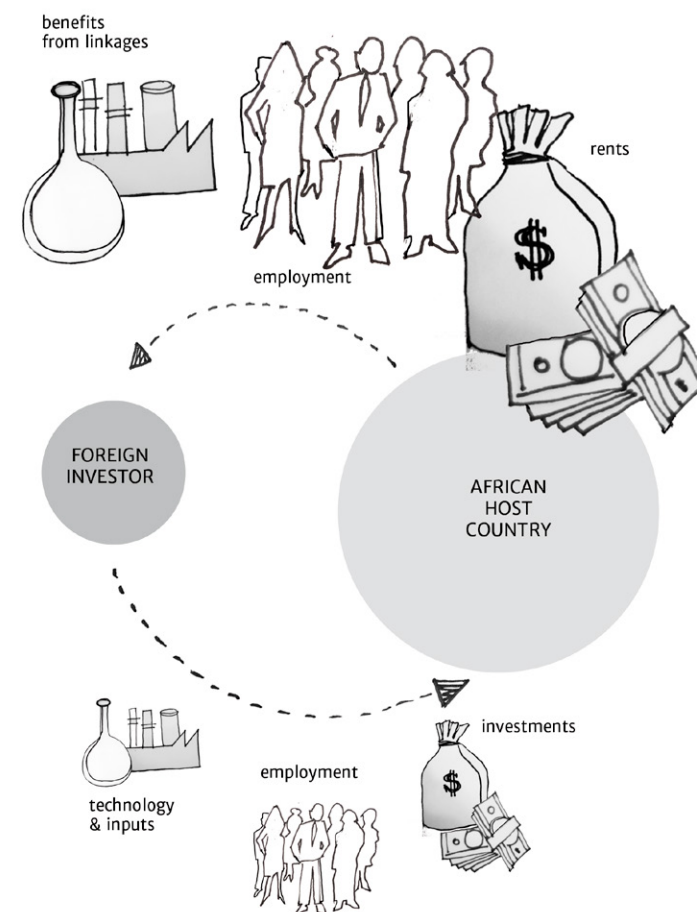
For governments, equitable sharing of revenues and the stability of revenues are at the heart of fiscal agreements. For investors, stability, predictability, risk sharing and neutrality of government actions are at the heart of their assessment of a country's fiscal regime. Governments also must provide a framework that ensures that part of the resource revenues are saved, and another part is invested in assets to support sustainable development such as physical infrastructure, education, health and environmental protection.

Although fiscal regimes often focus on maximizing revenues, they are also critical instruments in ensuring improved management and use of mineral resources, and for promoting linkages and

broad-based development. Trade-offs between revenue and non-revenue goals are inevitable.

This chapter is organized in two major sections. Section 1 focuses on the fiscal regime to ensure that countries enhance their share of mineral revenue over the long term. Section 2 focuses on how countries can improve on the management and use of mineral revenue derived from the fiscal regime. Each section is organized in two parts. The first part sets out a number of general (high level) issues that are to be considered carefully in designing a country's overall fiscal regime and its revenue management guidelines. The second part then addresses the particular challenges to achieving the desired outcomes. It also provides some options to address the particular challenges, recognizing that the choice and the mix of options or activities may vary from country to country, and even for each country from time to time depending on the country's human and institutional capacity in managing the sector.

How a country can be separated from the benefits of its resources



FISCAL REGIME AND REVENUE CAPTURE

Outcome 1: Optimize the share of mineral revenue accruing to resource-rich economies -- based on AMV Action Plan (2013)

The following set of high level questions are intended to assist facilitators or high level government officials doing initial assessment or diagnosis of a country's mining fiscal regime in the process of designing the Country Mining Vision. The questions are intended to ascertain the extent to which the overall thrust and specific features of the existing fiscal regime align with or deviate from the AMV's perspective in optimizing, managing and sharing of mineral revenue. While the questions are not exhaustive, they certainly need to be considered carefully when designing a country's fiscal regime.

Questions

- Does the fiscal regime deliver value for the country over the long-term?
- Does the fiscal regime ensure that government receives a rising share of the revenues with rising profitability of mining activities? (progressivity)

- Does the fiscal regime guarantee an appropriate minimum government revenue in all production periods and price cycles? (stability)
- Does the fiscal regime ensure robustness to changing circumstances (stability and flexibility)?
- Is the fiscal regime designed to encourage long-term investments?
- Does the fiscal regime limit opportunity or create loopholes for tax avoidance and evasion?
- Does government offer stability clauses? Are they the appropriate instruments to achieve the desired outcomes and are they limited in duration?
- Does the fiscal regime contain provisions for capital gains tax?
- Are the instruments of the fiscal regime easy to implement?
- Does the fiscal regime inspire confidence that the country is collecting what is due or owed and what is fair?
- Does the country have adequate administrative capacity and institutions with clear roles / mandates to collect all revenues
- Does the country have oversight audit institution(s) and mechanisms?
- Does the fiscal regime facilitate and encourage mineral economic linkages?
- Does the country have a robust anti-corruption regime, including legally binding anti-corruption clauses?

The range of fiscal instruments commonly used in the design of fiscal regime is presented in the box below:

BOX 2 – Mineral Fiscal Instruments

- Direct tax instruments:
 - Corporate income tax (plus withholding tax)
 - Progressive profit taxes (e.g. South Africa gold formula tax)
 - Resource rent taxes
 - Windfall profits tax, additional profit tax, super-profit tax
- Indirect tax instruments:
 - Royalties *ad valorem*, specific/production volume
 - Import duties
 - Export taxes
 - Value Added Tax/Goods and Services Tax
 - Labour levies (skills, unemployment)
 - Energy levies
 - Competitive bonus bidding, auctions (e.g., hydrocarbons)
 - Surface fees
 - License fees
 - Production sharing contracts
 - State equity participation

Challenges and Options

The challenges in the designing of a fiscal regime that ensures that countries receive an equitable share of revenue from their mineral assets over the long term are diverse and complex. The challenges vary along the entire mineral value chain: from licensing and contracting, to auditing of production, revenue assessment and collection, accountability and transparency of the use and management of revenues, from environmental protection to mine closure and related issues.

The following provides a list of a range of particular challenges that inhibit the ability of countries to design and implement fiscal regimes that fairly balance the expectations of host governments and investors. Each challenge is followed immediately by a range of options that may be used singularly or in combination in response to the challenge.

Lack of transparent and competitive allocation of concessions for known mineral assets:

- Improve country's knowledge base and information about country's mineral assets
- Tender / auction of known properties

Opaque offshore changes in control of national mineral rights resulting in revenue loss

- Apply transparent criteria in both initial allocation of mineral rights and transfers to other companies

Capturing an equitable share of the resource rents

- Consider the introduction of a Resource Rent Tax (RRT) or Additional Profit Tax (APT) based on Return on Investment (ROI) that is greater than the return on investment that is needed to attract investment into the economy. The RRT rate could be offset (reduced) by the degree of upstream and downstream beneficiation, above a well-defined base rate

Overly generous tax holidays and exemptions that compromise state revenues and contribute to the “race to the bottom” between African states

- Minimize use of tax exemptions and holidays and undertake periodic review of exemptions to ensure that the original case for the granting of exemptions still applies

Lack of harmonisation of fiscal regimes across the Regional Economic Community (REC) which often contribute to a “race to the bottom” and compromise state revenues

- Harmonise with other REC countries, taking into account the peculiar cost structures of the country relative to the region

Poorly designed royalties and other imposts (fees, levies and trade tariffs) that could add to costs (sterilise resources) and provoke perverse outcomes

- Improve design of royalties and other imposts
- Plan to adopt alternative fiscal instruments that minimize additions to upfront costs and reduce the value of the resource to the state.

- Build appropriate capacity to rely on tax instruments that rely on revenue surplus (through, for example, resource rent tax)
- Trade tariffs should be used to facilitate industrial strategy (for example, to promote linkages)

Widespread use of fiscal stability clauses, which compromise the country's ability to adjust the fiscal regime to align with new economic realities or national development strategies

- Eliminate stability clauses or at least limit them to the requisite taxes for a maximum period to recovery of the initial capital
- If used, make provision for balanced periodic review clauses

Widespread tax evasion and avoidance schemes like transfer pricing (including over-invoicing of inputs costs, debt servicing (thin capitalization), offshore management fees (overheads), etc.)

- Ensure arm's length pricing with associated or related companies
- Introduce country specific transfer pricing regulations and guidelines (OECD rules could assist)
- Enforce rules on thin capitalization (maximum gearing ratio)
- Impose limits (cap) on management, overhead and related costs
- Withholding taxes could be an option
- Ring-fencing, as appropriate

Under-invoicing of sales, especially ores and concentrates without terminal prices, and the use of derivatives (hedging below market prices)

- Consider the use of transparent advance pricing mechanisms for ores and concentrates against agreed reference prices
- Use actual market prices (not derivatives) to determine sales for tax calculations
- If hedged prices are to be used, ensure arm's length relationship between the company and the hedging financial institution

Double taxation agreements undermining state revenue collection

- Manage or handle with care. Could have both positive and negative impacts
- Understand the potential trade-offs to the country arising from double taxation agreements

Lack of or dilution of an equitable state share of beneficial gains from mineral rights transfer

- Introduce an effective capital gains tax (CGT) on beneficial transfers of mineral rights, including offshore changes in control of the mother company or ultimate controlling company
- Make the reporting of such changes in ownership mandatory and require state authorisation of changes in the controlling ownership of mineral rights

State participation/equity (generally equivalent to some taxes (above) such as RRT, in terms of revenue)

- Significant state participation/control is widespread for strategic mineral feedstocks into the domestic economy, such as iron/steel, polymers (from fossil fuels), cement and agro-minerals (NPK), to ensure adequate supply and pricing
- Consider the trade-offs in regard to types of “equity”
- Ensure transparent reporting by agencies managing state interest and effective oversight mechanisms

REVENUE USE AND MANAGEMENT

Expected Outcome 2: Improved management and use of mineral revenue – AMV Action Plan (2013)

The experience of oil producing countries, especially those in sub-Saharan Africa, highlights the challenges of government in managing mineral revenues. Three specific challenges are deciding on:

- (i) how much of the revenues to spend now and how much to save,
 - (ii) how to decouple government spending from the volatility of mineral prices, and
 - (iii) how to safeguard the rest of the economy from undue exchange rate appreciation – the so-called Dutch Disease.
- Then there is the important issue of how to spend whatever is allocated into current annual budgets.

The following set of high level questions are intended to assist facilitators or high level government officials doing initial assessment or diagnosis of country's mineral revenue use and management. The questions are intended to ascertain the extent to which the overall thrust and specific features of revenue management constrain or help to achieve desirable development outcomes for citizens.

Key Questions

- Does the country have a well-established resource revenue management system?
- Does the country have a comprehensive long-term development plan/strategies?
- Is the country's budget system linked to the national development plan/strategies?
- Are there clear legal rules on spending / savings of mineral revenue?
- Are resource revenues allocated in line with country's strategic (long-term development plan) objectives, or with more political considerations?
- Is a reasonable proportion of resource revenues invested in assets to support sustainable development, such as physical infrastructure, education, and health?
- Does the country's revenue use and management provide reasonable safeguards for sharing the benefits from resource revenues with future generation?
- Are there provisions of public accountability and transparency?
- Are there reporting requirements and guidelines on how resource revenues are managed?
- Are there opportunities for public oversight?

These questions highlight a range of critical issues that must inform how a country may manage its mineral revenue. The questions address the administrative and operational challenges in assessing revenue due the state, the inter-generational

resource benefits-sharing problem as well as the social contract of accountability and transparency.

Challenges and Options

Revenues from minerals extraction first accrue to governments and invite strategic decision making on how much to spend now and how to spend it, and how much to save and the management of the saving. The revenues offer governments the fiscal space to fund the provision of physical infrastructure, such as improvements in education and health and social amenities (water, sanitation among others) that daily affect the lives of all citizens. Some common challenges to be considered carefully, and their recommended actions, follow.

Lack of transparency in revenue collection and weak accountability of resource revenue use

- Adopt the Extractive Industries Transparency Initiative (EITI) requirements for reporting of the payment and collection of resource revenues
- Put in place a sound system for assessing and collecting all mineral revenue due to government
- Develop clear reporting guidelines (timelines, content and medium of dissemination) for institutions assigned responsibilities in the assessment, collection and use of revenues

Risk of Dutch Disease (real exchange rate appreciation and inequitable inter-sectoral development)

- Spending should be guided by long-term national development plan
- Invest windfall earnings into Sovereign Wealth Fund (SWF) (including Mineral Development Fund and Stabilization Fund) and explore strategies to invest in physical assets and skills to support sustainable development
- Develop incentives to catalyze the development of non-resource sectors

Mineral revenues are spent disproportionately on current consumption compromising inter-generational equity

- Consider establishing a SWF
- Develop spending/saving guidelines for the purpose of providing financial capital for future generations, and prudently manage investment in long-term infrastructure (transport, power, water, ICT) to support sustainable development

Lack of long-term development plan that guides the allocation and use of resource revenues

- Formulate a publicly debated comprehensive long-term national development plan and establish priority areas for the allocation of mineral revenues in the short to medium term

Inequitable distribution of mineral revenue and neglect of local authorities and communities living near mining areas

- Develop transparent mineral revenue distribution system to local authorities, and where possible directly to communities living in near mining areas

Lack of credible processes and institutions to ensure accounting and auditing of revenue and payments

- Clearly define the roles and the responsibilities of institutions involved in the assessment, collection and management of revenues and savings

Risk of short-term political considerations in the allocation of resource rents because of the lure of electoral successes

- Improve governance including strengthening the role of independent oversight bodies

GEOLOGICAL AND MINERAL INFORMATION SYSTEMS

AMV GOALS

PROBLEM STATEMENT

LANDSCAPE

KEY QUESTIONS

OPTIONS

CASE STUDIES

AMV GOAL

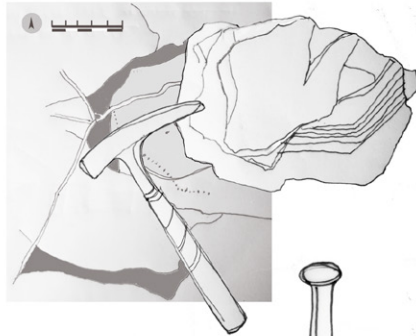
"Improved geological and mining information systems to underpin investment in exploration and mine development." – AMV Action Plan (2013)

Geological information has a universal value and is useful for not only mining but all economic sectors such as infrastructure and agriculture. The availability of geological and mineral data allows both the public and private sector to make informed decisions on mineral sector development. The more accessible the information is, the lower the risk on investment in exploration and mine development. Basic geological information is usually collected and stored by government Geological Survey Departments, while much of the mineral exploration activities are undertaken by the private sector. Geological data collected on a regular basis throughout Africa can significantly enhance the mineral prospectivity of the continent, and lead to increased new private sector exploration and mine development investment.

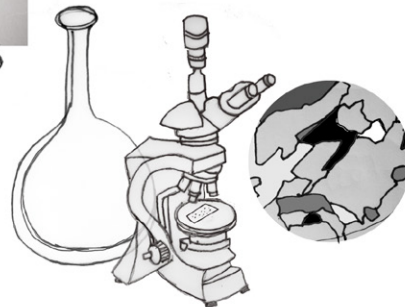
The AMV objective is to develop a comprehensive knowledge of Africa's mineral endowment. This chapter offers guidance that countries should consider to ensure the availability of and access to geological data and information.

Developing a comprehensive geological information system

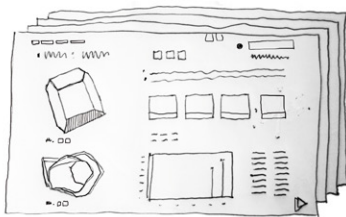
1. MAP & COLLECT



2. ANALYSE



3. CREATE DATABASE



PROBLEM STATEMENT

In most jurisdictions, national geological surveys (GSOs) are the custodians of geological and mineral information systems. They are responsible for generating basic data and disseminating it, as a public good, in a suitable, good quality, easy and cost effective manner.

Historically, the role of GSOs was the mapping of geology and mineral resources and maintaining databases, often in support to mineral resource development. They realised an important market function by reducing both the costs and risks of private explorers in the selection of areas for more detailed exploration. Today, GSOs offer broader services with a focus on human health, the environment, natural geologic hazards and anthropogenic hazards, energy, mineral and water resources development, land-use planning, geotechnical and infrastructure development, climate change, economic development, and education. The discharge of these responsibilities requires huge public investments in human, financial and material resources, which very few African countries can afford.

Most African GSOs are underfunded and poorly resourced. A large percentage of the continent is yet to be geologically mapped and explored in a systematic manner and at an appropriate scale. There is also limited availability and access to basic geological information and mineral inventories. Yet, this is a formulation for the formulation and implementation of sound public policies in

resource development, environmental protection, public health and safety, land use, and infrastructure planning. The inadequacy of geological and mineral information has thus disadvantaged African countries in their land use planning, strategy for mineral exploitation, development of infrastructure and negotiations with mining companies.

LANDSCAPE

Geological data, including maps and mineral resources inventories, are the essential basis for assessing the potential for mineral projects and granting exploration and mining permits. Thus a comprehensive geological and mineral information database will provide governments with better decision-making options and the capacity to negotiate sustainable mineral development contracts with foreign investors. However, the production, maintenance, and management of geological and mineral information data requires a lot of fieldwork and the use of modern exploration technologies, as well as skills that are generally in short supply in Africa.

A properly resourced Geological Survey institution is important for the state's knowledge of its mineral endowment, for discovering new resources, for developing mineral occurrences (anomalies) for tender, monitoring private exploration licenses / leases and as the marketing window for a country's minerals resources potential. A capable Geological Survey institution can also provide policy makers with relevant and timely information to feed into the country's broader development policy. In this regard, investing in geological mapping, data collection and geological information system infrastructure (hard and soft) as well as geo-knowledge is important.

Systematic geological mapping across the continent is in a parlous state and very few new geological maps of the required scale have

been produced in the last five decades. Most geological survey departments are dysfunctional due to falling real budget allocations as short-term allocations to urgent social needs will always trump long-term investment into geo-knowledge. This compromises future mining and weakens the state's bargaining power in future mineral lease negotiations, compromising inter-generational equity. African states need to urgently find mechanisms to fund geological survey departments directly from a portion of mineral revenues in or to replenish the national resources base as current operations deplete it.

Several African states have restructured their geological survey departments as more autonomous government agencies with the power to attract the requisite professionals with appropriate remuneration and tools (equipment). These "agency" models work better, provided that they are adequately funded.

Interventions aimed at overcoming a country's lack of basic geological mapping are important in order to enable a government to treat its mineral resources in a sovereign way. In addition, it also reduces risks for investors. This in turn should temper investor tendencies for demanding extremely favourable fiscal regimes.

Geo-knowledge (capacity building) is needed for mapping, resources replenishment, monitoring, evaluation, exploration and negotiation purposes. These efforts will involve addressing governance challenges and human, financial and technical

capacity constraints faced by member States which combine to pose major challenges to the ability of the mining sector to contribute to national development. Moreover, in an environment of budget constraints and competing priorities of government, the responsible ministry under which the geological survey is operating must build the financial case for supporting geological and mineral information systems. If a country pursues a non-national database, caution should be taken regarding changing terms of data use.

African countries currently face some major challenges that impede government ability to collect and centrally store geological information. These are:

- Poorly resourced geological and mining institutions (financial, technological and human resources).
- Lack of coordination among institutions involved in and affected by the mineral sector. In most countries data is collected and stored by multiple agencies without any coordination, and with poor collaboration.
- Lack of enforceable arrangements for mining companies to deposit geological data with government. Currently some countries have provisions for mining companies to deposit geological data and information with the government, but the provisions remain ineffective or not enforced. This is because of lack of binding mechanisms to compel the companies to deposit such information.
- Lack of capacity for storage and handling of geological data and information. Most African geological surveys lack the financial

means to upgrade their physical infrastructure and human capacities in order to have a modern geological and mineral database. Thus, even where a mechanism exists for compelling mining companies to deposit information, the lack of capacity remains constraining.

- Lack of access to geological data and information. In many African countries there is no guaranteed access by mining companies and other interested agencies to geological data held in government databases. Data which is available in the database should be accessible openly or at a fee.

KEY QUESTIONS

The following are some of questions to be considered in addressing the issues and challenges relating to availability of and access to geological data and information.

- How well is the role of geology in society understood by the majority of citizens?
- Which measures should be put in place to improve the level of understanding about the role of geology in society?
- How effectively are geological and mining institutions discharging their responsibilities?
- Which barriers, if any, are inhibiting geological and mining institutions discharge their responsibilities?
- Why are geological and mining institutions under-resourced?
- Which measures should be put in place to strengthen the capacity of geological and mining institutions?
- What are the current impediments to acquisition of geological data and information by the government?
- How is the geological data and information used by the government to create valuable assets?
- What are the current barriers to access to geological data and information by companies or other interested parties?
- How can the legal framework be strengthened and enforced, so that acquired field data is made available to governments?
- Is there a well developed and efficient mechanism for coordinating the handling and sharing of geological data and information?

- What is the current capacity of the Government in storage and handling of geological data and information?
- Which regional and international initiatives contribute the most to the strengthening of geological and mineral information systems in the country?
- How to maximise the benefits arising from the country's participation in regional and international initiatives aimed at expanding Africa's geological coverage and mineral inventory?

OPTIONS

The following options are recommended to address the issues outlined in the preceding chapter:

Organizing an efficient geological institution

- Transforming the geological survey entity from a government department (civil service) into a state agency with its own governing board. This usually requires an Act (law) to establish the “Geo-survey Agency” (GSA);

Sustainably funding geological surveys and data and information storage

- Configuration of a mechanism to *directly* fund the GSA from mineral revenues. Options could include:
 - A portion of mineral fees, levies, ground rent, etc.;
 - A portion of mineral royalties – this would be the most logical, because royalties are applied to recompense the state for assets (resources) lost through extraction (mining). It would thus be logical to use a portion of royalties to replenish the national mineral asset base through systematic geological surveys to identify new exploration targets;
 - A dedicated “national mineral resources replenishment levy” on all extraction (operating mines) of, for instance, 0.5% to 1% of the value of minerals extracted/foregone (equivalent to a small second royalty);

- Selling data and services to raise funds – this would be facilitated through the creation of a free-standing agency (GSA); and
- Configuration of additional resources/funding through partnerships with donors; regional institutions; PPPs; multilateral institutions;

Acquisition and storage of geological data and information

- Mechanisms should be established to obligate all private exploration companies to lodge all geo-information, data and samples/cores (not consumed in analyses) with the national geo-survey entity. This will substantially reduce future exploration costs over the same property, but will require the allocation of substantial resources to the geo-survey entity for establishing the infrastructure to hold such data and samples (storage warehouses, computer storage, etc.). Regional storage facilities could also be explored, especially for smaller countries, to reduce costs.
- Expanded geo-mapping and capacity building should be developed through partnerships with neighbouring states, other African countries, bi-lateral cooperation agreements, technical exchanges, regional training initiatives and mechanisms, regional laboratories, regional equipment and machinery sharing/loan schemes, etc. These could be facilitated or coordinated through the REC, if appropriate.
- The development of national and sub-regional geological and minerals management and information frameworks such as national and regional GIS (geographic information systems) and MCIMS (mineral cadastre information management system) should be established on a regional basis. Building regional

mineral clusters, regional human resources training infrastructure and promoting a regional approach to earth sciences, education and research will enable member states to benefit from economies of scale. Therefore a country should be proactive in establishing regional cooperation in advancing geological mapping and exploration.

- Mechanisms to prioritise the transfer of technical skills should be built into all service provider contracts (e.g. geo-mapping contracts tendered should have clauses to include national geosurvey services) and exploration rights/licenses. This will have sustainability benefits and greater value for money. Contracted companies should be obliged to transfer technology and skills and to involve local professionals and technicians.
- Intra-REC, and African links between, geo-surveys, universities, research institutions and other relevant entities should be formalised and institutionalised. This will involve exploring options for the communication and the promotion of the benefits of the AMV/CMV.
- Countries should motivate for the standardization of geological mapping protocols and systems and geological nomenclature across the continent, but particularly within the RECs;

Efficient coordination of relevant government institutions

- Many different government institutions have the responsibility for the array of functions that have a bearing on the performance of the minerals industry, including mineral policy formulation, investigation of mineral potential, maintenance of geological and mining data, budgeting, granting of mineral rights and the

monitoring of operators' compliance with the terms of their grants and mining laws. The provision of adequate material resources, the attraction and retention of competent and conscientious personnel, the enhancement of their capacity as well as the mobilization and appropriate deployment of available knowledge and skills, require continuing attention in many of these state institutions. A body should be selected/created for the coordination of the CMV process in managing geo-information systems, including:

- Ministry responsible for mines / geological surveys
 - Ministry responsible for science and technology (RDI)
 - Ministry responsible for finance (National Treasury)
 - Ministry responsible for public enterprises (state companies)
 - Ministry responsible for education / universities
 - Ministry responsible for planning (Planning Commission)
 - Ministry responsible for trade and industry
 - Other Ministries / agencies related to geo-knowledge and development
- The environmental and social impacts of exploration need to be catered for within the exploration/prospecting license or agreement with the exploration company.

Coordination of existing programmes

- Countries need be aware of and participate in the various geo-information programs being implemented, and cognisant of how these may apply in-country and regionally. eg. AEGOS, GIRAF,

EGS-OAGS, ONE geology, SEAMIC, the Pan-African Network for a Geological Information System, and PANFACT.

CASE STUDIES

The following section presents some case studies of successful geo-surveys/projects operating in Africa:

WAXI

The West African Exploration Initiative is an ambitious research and training program led by eight institutions, focussed on the mineral potential of the West African Craton. The overall aim is to enhance the exploration potential of the West African Craton through an integrated program of research and data gathering and to augment the capacity of local institutions to undertake this form of work. The initiative includes the following countries: Burkina Faso, Guinea, Guinea-Bissau, Ivory Coast, Liberia, Ghana, The Gambia, Mali, Mauritania, Senegal, Niger, Sierra Leone and Togo.

AEGOS

AEGOS is a support action of the European Union 7th Research & Technological Development Framework. This program contributes to design a pan-African infrastructure of interoperable data and user-oriented services to strengthen sustainable use of geo-resources in Africa. It contributes to the Global Earth Observation System of Systems (GEOSS) through the

setting-up of Earth observation systems in Africa; elaborates common strategies for capacity building and training programmes; supports geo-scientific communities and institutional decision-makers for setting up sustainable development research and public policies.

EU-ACP cooperation projects

The EU-ACP cooperation programme has funded projects for about 10 years presented by European Geological Surveys (BRGM-France, BGS-Great Britain and BGR-Germany) in cooperation with African countries (Mali, Burkina Faso, Niger, Senegal, Gabon) to map, strengthen the geological infrastructure and to develop the human capacity.

BUILDING HUMAN AND INSTITUTIONAL CAPACITY

AMV GOAL

PROBLEM STATEMENT

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AMV GOAL

A knowledge-driven African mining sector that catalyses and contributes to a broad-based growth and development of, and is fully integrated into, a single African market and which is the engine of an internationally competitive African industrial economy.

-- based on The Africa Mining Vision (2009), The African Minerals Development Centre Business Plan (2012)

This chapter proposes pathways to map and improve a country's landscape of those institutions involved in building and strengthening human and institutional capacity.

PROBLEM STATEMENT

The knowledge-driven and competitive industrialized economy that Africa envisages for the future will require the transformation of the minerals sector in Africa from its current enclave nature. To meet the requirements of a transformed economic structure, each country will have to build upon or transform existing institutions with a view to equipping them to meet present and future demands.

Properly resourced state institutions are key to the development of the industrialized and competitive economy. Yet, most state institutions responsible for the administration of the mineral sector do not have adequate human and material resources to discharge their responsibilities. This goes beyond promotion and regulation of minerals industry operations, and demands the development of an industrial policy which incorporates the organic linkages between the minerals sector and the rest of the economy. The development of these linkages in the context of a globally competitive mining economy requires capacity for visioning, scenario building, and planning taking local environments into account.

The dearth of technical and entrepreneurial skills, capable research, development and innovation institutions and those that offer training in science and technology, hampers Africa's efforts to promote a knowledge-driven and competitive industrialized economy. There is also a lack of platforms to promote greater

interaction between knowledge institutions and industry. In addition, opportunities to enhance coordination of capacity development initiatives at national, continental and global levels are not adequately explored to avoid duplication. Regional and continental frameworks to accelerate capacity development are equally inadequate.

LANDSCAPE

At a very early stage in the process of formulating the CMV, it is essential to map the institutional landscape, not only in terms of those that are related to the mining sector, but also the anticipated institutional arrangements and structures necessary to nurture the dynamic industrialized economy of the future. Currently, different government institutions have the responsibility for diverse functions that have a bearing on the performance of the minerals industry. These functions include: mineral policy formulation, investigation of mineral potential, maintenance of geological and mining data, budgeting, granting of mineral rights, and the monitoring of operators' compliance with the terms of their grants and mining laws.

Of special importance will be the mapping of the following key institutions:

- Institutions responsible for regulating and administering the sector;
- Fiscal and planning agencies;
- Development boards and project planning bodies;
- Educational and research establishments (e.g. Geological Surveys and University Earth Science departments among others);
- Institutions responsible for infrastructure;
- Trade and industry departments;
- Chambers of mines, chambers of industry and trade, and other relevant bodies;

- Civil Society Organizations (CSOs), labor and trade unions;
- Banking and financial institutions;
- Parliamentary specialized bodies and other oversight institutions;
- Commercial courts and other judicial and appellate institutions related to the settlement of disputes and enforcement of the rule of law;
- Professional associations;
- Business chambers;
- Relevant regional and continental bodies.

Each of these institutions should be subject to a diagnosis of their capacity to deliver current mandates and ability to respond to the requirements of a future industrialized economy. The ability of oversight institutions to disseminate information to the public in a non-technical manner that will facilitate citizenry oversight of the industry should be evaluated. Assessing the capacity of enforcement institutions to investigate and prosecute misconduct in the industry is essential.

In conducting all of the above, of particular relevance would be the need to examine the mechanisms for inter-institutional coordination to ensure policy coherence and realize economies of scale. Some examples include:

- Planning commissions;
- Inter-ministerial bodies and task forces or committees;
- Development Boards or Industrial Development Corporations.

Special effort should be made to evaluate the effectiveness of existing regional cooperation mechanisms as a means to accelerating human and institutional capacity development.

KEY QUESTIONS

To inform the scoping phase of the CMV exercise, below is a list of possible questions that would help countries obtain comprehensive information on the status of both public and private institutions and initiatives involved in building and strengthening human and institutional capacity. It would also assist in identifying corrective measures that could be put in place to create a knowledge-driven minerals economy.

Policies and strategies on capacity development

- What policies and strategies has the country developed and implemented to promote a knowledge-driven and internationally competitive minerals economy?
- What policies and strategies do you have in place to prioritize continuous investment in research and development, science and technology and innovation, and for the production of skilled human resources?
- Do you have policies and mechanisms that facilitate the establishment of public private partnerships that enable local entrepreneurs and service providers enter the local and global minerals value chain?
- What form do current and planned major capacity development initiatives take?
- Do you have institutions to evaluate and harness opportunities to capture a greater share of the global minerals value chain?

Rules, regulations, measures and targets

- Do you have rules and regulations to encourage the private sector to invest in domestic capacity development?
- What measures are in place to strengthen the key institutions responsible for designing capacity development initiatives?
- What measures are included in your country's investment policies to encourage capacity development?
- Do policies on national ownership include capacity development measures?
- What measures have been taken to address the challenges encountered in implementation of human and institutional capacity development?
- Are there Science Technology Engineering Mathematics (STEM) skills and Research Development and Innovation expenditure targets in all mining licenses / leases / agreements?

Participatory approaches

- Are there mechanisms to foster the participation of all relevant stakeholders in human and institutional capacity development?

Knowledge sharing and coordination

- Do you have platforms for knowledge generation and sharing, peer learning and greater coordination of capacity development initiatives at national, continental and global levels?

Regional integration

- Have you explored the possibilities of promoting regional initiatives and approaches to capacity development, including the establishment of regional centers of excellence, alignment of standards, qualifications and curricula, and the establishment of communities of practice and peer learning?
- How effective are the existing regional cooperation mechanisms as a means to accelerate human and institutional capacity development?

Monitoring and evaluation

- What are the processes, institutions and practices in place for tracking, monitoring and evaluating the implementation and effectiveness of capacity development initiatives?

OPTIONS

In order to build a competitive knowledge-driven minerals economy, a number of capacity development and institutional options could be considered:

Policies and strategies on capacity development

- Establishing institutions to evaluate and harness opportunities to capture a greater share of the global minerals value chain;
- Prioritizing continuous investment in research and development, science and technology and innovation, and the production of skilled human resources;
- Establishing public private partnerships (PPP) Funds for STEM Skills Development and RDI;
- Establishing PPP to enable local entrepreneurs and service providers to enter the local and global minerals value chain;

Rules, regulations, measures and targets

- Establishing rules and regulations to encourage the private sector to invest in domestic capacity development;
- Including minimum local STEM skills (science, technology, engineering, and mathematics) spend (% of pay-roll) and local research development and innovation (RDI) spend (% VA) in all mining licenses/leases;
- Establishing mechanisms to evaluate the capacity of institutions on an on-going basis;

Participatory approaches

- Involving all relevant stakeholders in human and institutional capacity development;

Regional integration

- Exploring and promoting regional initiatives and approaches to capacity development, including the establishment of regional centers of excellence, alignment of standards, qualifications and curricula, and the establishment of communities of practice and peer learning;

Knowledge sharing and coordination

- Creating platform for knowledge generation and sharing, peer learning and greater coordination of capacity development initiatives at national, continental and global levels;

Monitoring and evaluation

- Developing mechanisms for monitoring and evaluation of capacity development obligations, including in local content programs.

ARTISANAL AND SMALL-SCALE MINING (ASM)

AMV GOAL**PROBLEM STATEMENT****LANDSCAPE****KEY QUESTIONS****OPTIONS****CASE STUDIES**

AMV GOAL

"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" -- The Africa Mining Vision (2009)

Pursuing this goal is expected to result in the following outcome:

"A viable and sustainable ASM sector that contributes to growth and development." AMV Action Plan (2013)

The following chapter offers an overview of the challenges for artisanal and small-scale mining (ASM) and pathways to transform the sub-sector into into a viable and sustainable one that contributes to growth and development.

Artisanal mining



PROBLEM STATEMENT

Artisanal and small-scale mining (ASM) of a large variety of minerals in Africa is a key contributor to the economies of a number of countries, especially in terms of livelihoods for rural and often remote communities with very few other options.

However, artisanal and small-scale miners are invariably caught in a poverty trap from which it is very difficult to escape. Often, the activity is associated with illegalities, social vices, and practices inimical to the safety and health of the operators as well as to adjoining communities and environment. These therefore prevent the sub-sector from reaching its full developmental potential, as presented in the AMV goal.

LANDSCAPE

Artisanal and small-scale mining (ASM) is widespread in Africa and exploits a very large number of minerals. These range from diamonds and a variety of other gemstones, to precious metals such as gold, to industrial minerals, including limestone for aggregate and agricultural purposes, clays for pottery and other uses, and many other non-metallic minerals. Generally, small-scale mining makes a positive contribution to African economies. More importantly it sustains livelihoods, especially given the large numbers of people involved.

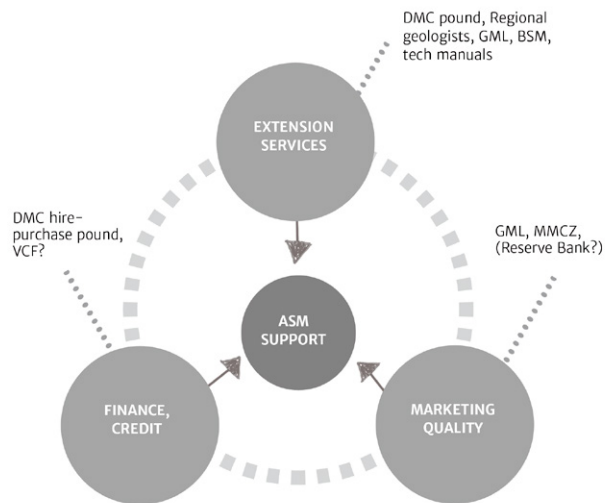
Yet this sector is beset with a number of challenges which prevent it reaching its full developmental potential. Many of these are well known and include inadequate policy and regulatory frameworks; the limited technical capacity of miners; inadequately explored mineral bearing areas; lack of access to finance and appropriate technologies. It is also plagued with gender and child labour issues. These challenges generally lock small-scale miners into a cycle of subsistence operations with significant negative consequences on the environment and human life. Further, the ASM sector is prone to trade in conflict minerals, and many of the miners operate outside the law for various reasons.

The ASM sector has also seen a shift from seasonal ASM activity to full time activity, especially with the recent commodity price boom, thereby resulting in competition for labour with

agriculture. These factors, combined with no rehabilitation of ASM-affected lands, create pressure on the agriculture sector.

The ASM sector can be transformed into an engine for sustainable development, particularly in rural areas, if these challenges are adequately addressed through a series of well-targeted interventions. These should recognise the need for ASM policy to be embedded into a broad rural development strategy, taking into account the poverty cycle that limits the development of the ASM sector in Africa. ASM interventions ought to also target transforming all operations into viable ones, wherever possible.

ASM support 'Golden Triangle'



KEY QUESTIONS

- Is there an adequate policy framework for artisanal and small-scale mining (ASM) and is it optimally aligned with the broad national / regional / local development agenda, including rural development plans?
- Are the existing laws aligned with the policies to facilitate ASM transformation?
- What factors promote the widespread existence of illegal / unregulated ASM?
- To what extent can these be managed?
- What policies / strategies / actions can best encourage regulation?
- Do institutional and administrative structures for promoting streamlined ASM exist and are they adequate?
- Are there adequate training, mentoring and other programmes for building ASM capacity?
- Does the ASM framework provide for access to requisite geo-scientific information?
- Is the environment for ASM conducive for finance and marketing opportunities?

OPTIONS

In order to transform the artisanal and small-scale mining (ASM) subsector into a viable and sustainable one that contributes to growth and development, the following options may be considered to address the sector's rather diverse aspects:

Policy and Legislation

- Integrate ASM policy into the Poverty Reduction Strategy Paper (PRSP) process with linkages to other national rural sectors, and develop a strategic framework for PRSPs, in line with the Yaounde Vision on ASM.
- Develop policy, legal and regulatory provisions, along with institutional capacity, that integrate ASM into wider rural development strategies and programmes, taking account of available alternative economic options by involving all stakeholders, including relevant governmental institutions (e.g. ministries responsible for mines, land, agriculture, local government authorities, revenue and customs authorities, law enforcement agencies, etc.), national banks, development partners, and civil society. Reform national laws and policies to encourage ASM subcontracting and mentoring programmes by large scale mining corporations. This could hold win-win outcomes for both partners.

Awareness Campaign

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

knowledge and skills, especially relating to geology, mining methods, and business management, which through inadequate exploration, poor recoveries, poor safety, health and environmental (SHE) practices, which result in less than optimal return on the investments made by the miners, along with other negative socio-economic impacts.

Support for ASM

- Streamline support for ASM operations. For example, the creation / strengthening of ASM associations / cooperatives to facilitate the promotion of labour laws and best practices towards minimizing the negative impacts of ASM. This approach could also alleviate some issues around the access of ASM miners to financing.
- Build or strengthen strategic business linkages between ASM, business support providers and technology supply agencies. A technical partner would improve access to technology and commercial finance, and increase sustainability (e.g. Thailand, India). A further avenue is to seek technical and business support through cooperation between large scale mining and ASM operators. Such mentorship relationships could also provide ongoing support until the ASM operator graduates into a formal business.
- Encourage and support ASM associations to involve themselves in othersustainable economic sectors by establishing economic ventures which could include institutions / laboratories aimed at value addition and input provision. For example, cutting and polishing labs and official marketplaces for gemstones, semi-

precious and precious minerals, would help alleviate problems caused by dealing through middlemen. Official marketplaces also help address ASM sector taxation and revenue collection issues. This could ease tracking and certification schemes and augment government efforts. These measures will also help raise ASM incomes beyond subsistence levels.

- Support to individual ASM operators, associations, cooperations, communities etc materially and technically, to adopt SHE standards and practices would mitigate the negative impacts of the absence or poor use of such standards, both for themselves and adjoining communities. This would minimize, if not eliminate, injuries and even fatalities from accidents, other negative health impacts resulting from the absence of use of safety clothing and other personal protective equipment. It would also ensure knowledge of safe mining and processing practices which can reduce air and water pollution from dust and other raw effluents, for both the operators and their surrounding communities.

Training and Capacity Building

- Train and capacitate ASM in adding value to, and marketing of mineral products, especially for gemstone miners.
- Improve access to basic social infrastructure for ASM communities (e.g. health facilities, sanitation, access to potable water, etc).
- Provide training to the ASM community in modern mining and processing methods to reduce environmental damage and degradation and promote environmental assessment or

remediation programmes. This will help manage collateral negative impacts on other sectors, such as agriculture, lands, forestry, livestock, fisheries.

Social Considerations

- Address other social issues surrounding ASM, with measures including gender awareness campaigns, strengthening and enforcing child labour laws, as well security arrangements to manage crime, violence and social disruption due to illegal/illicit mining and encroachment on Large Scale Mining (LSM) operations.

Collaboration

- Collaborate with neighbouring countries to abate trade in conflict minerals by limiting transit points. 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.
- Collaborate with neighbouring countries to adopt a regional approach to increasing the R&D capacity of this sector. This could bridge technology deficiencies and promote harmony in criteria for distinguishing potential viability in projects, both at national levels and sub-regionally.

CASE STUDIES

Ghana Regularization and Legislation Case Study

To address the challenges created by illegal mining – particularly of gold – which had significant impact on security, environment, and society, Ghana created a legal framework and regularized the activity in 1989. To facilitate the process, administrative, institutional and marketing structures were developed. By way of administrative and institutional structures, the Minerals Commission created local offices with the direct responsibility for artisanal and small-scale mining (ASM). These offices promoted regularization of ASM operations and provided technical extension services, for example training in efficient mining methods with an emphasis on safety, health and environment as well as capacity building in record keeping and business management. A marketing structure was put in place through broadening the mandate of the government-owned Precious Minerals Marketing Company Limited to provide ready marketing access to miners. To improve effectiveness and efficiency, private companies were introduced to bring about competition.

While the challenge of having some unregularized/illegal operations still confronts the framework, it has worked reasonably well over the years and there are currently 1,300

licenses which have been issued to Ghanaian entities, both individuals and corporate, which provide jobs for some one million people.

Artisanal Mining in Ethiopia

Artisanal mining in Ethiopia has been the basic mineral and rocks production and processing sector throughout history. It is a sector which involves a large number of people directly as small scale miners and indirectly their dependents and the community. Although it is and has been an important sector for job creation, there were no regulations governing the whole process in this sector. As a result there is illicit mining and trading and the use of child labor. In order to make the artisanal mining sector work effectively and contribute to the overall development of the country, the government has enacted a legal and fiscal regime that addresses mineral operations in Ethiopia including the artisanal mining and transaction of precious minerals.

Source:

Ministry of Mines, Ethiopia (October 2012): Artisanal Mining Activities in Ethiopia Challenges and Opportunities, [http://www.globaldialogue.info/Artisanal%20Mining%20Activities%20in%20Ethiopia%20-%20Challenges%20and%20Opportunities%20\(Oct%202012\)%20-%20Abayneh%20Tilahun.pdf](http://www.globaldialogue.info/Artisanal%20Mining%20Activities%20in%20Ethiopia%20-%20Challenges%20and%20Opportunities%20(Oct%202012)%20-%20Abayneh%20Tilahun.pdf)

The Yaounde Vision

The Yaounde Vision on ASM represents one of the main frameworks for the development of this sub-sector in the continent. The Vision recognizes ASM as a key poverty-driven and poverty-alleviating activity for many African rural economies, with few entry barriers, and places it alongside development challenges in the broader context of the MDGs. It further recommends that ASM should be integrated into local and regional economic development and land-use plans and strategies, specially Poverty Reduction Strategies (PRS). The Vision also urges that the mining policies and laws of members states should be reviewed to incorporate a poverty reduction dimension in ASM strategies.

The Zambian Scenario

Amalgamation of ASM Emerald Mining Plots

Zambia is endowed with the world's second-best emeralds next to Columbia. The emerald belt is located in the Lufwanyama district of the Copperbelt province with more than 400 licensed ASM plots. Of 406 licensed plots, only 4 are operational and productive and these are owned by foreign investors, while all the non-operational ones are owned by locals. The plots are so tiny that they fail to attract foreign direct investment. What the Zambian government has done is to amalgamate the 400 plots into 10 large

scale mines. The ASM Plot owners have been directed to form cooperatives or companies while Government has sourced foreign investors to partner with them. This has led to a resurgence of operations with accountable production and increased revenue generation for the country.

Simplification of licensing procedures for ASM

The Government of Zambia introduced an Artisanal Mining License in 1995 in an effort to try and legalize illegal mining operations. These artisanal licenses have very simplified procedures for acquisition. For instance, one does not need to prepare an Environmental Project Brief or Environmental Impact Assessment before grant of the license. The Government also launched a massive sensitization campaign to capture all illegal miners and direct them to acquire the Artisanal Mining Licenses which are obtainable from Regional Mining Bureaux as opposed to the Central Mining Cadastre office located in the capital city of Lusaka where other license types are issued from.

The Case of Zimbabwe

Zimbabwe arguably had the most successful ASM sector in Africa before their currency crisis. It was based on an ASM “golden triangle” of extension services (District Mining Commissioner (DMC), regional geologist, Government Metallurgical Laboratory (GML)), finance (DMC equipment hire-purchase pound), and marketing/quality (GML and Minerals Marketing Corporation of

Zimbabwe (MMCZ)) and is currently being rebuilt and consideration is also being given to creating an ASM Venture Capital Fund (VCF) as a Private Public Partnership (PPP) between the state and the Chamber of Mines (and donors, e.g. the World Bank “Communities and Small-scale Mining” (CASM) grant system, <http://go.worldbank.org/6OCES521Ro>).

ASM has the potential to create severe environmental damage. In this regard the concept of creating proclaimed ASM zones is under consideration, whereby the state could carry out a Strategic Environmental Assessment (SEA) over such zones and build the necessary mitigation and remediation measures into the ASM licenses granted in the zone. Failure to comply with the measures would lead to a forfeiture of the license after a reasonable rectification period (3 months) and appeal procedure (Mining Affairs Board (MAB)). The state would further carry out periodic environmental assessments over such proclaimed ASM zones and update the requisite conditions in all ASM License renewals in the zone.

MINERAL SECTOR GOVERNANCE

AMV GOAL

PROBLEM STATEMENT

LANDSCAPE

KEY QUESTIONS

OPTIONS

AMV GOAL

To create a sustainable and well governed mining sector that is inclusive and appreciated by all stakeholders including surrounding communities. -- based on The Africa Mining Vision (AMV)

This chapter addresses mineral sector governance through an outline of the legal and institutional environment issues in minerals development.

PROBLEM STATEMENT

Governance of the mineral sector refers to the legal and institutional environment in which various stakeholders interact. It requires transparency and public participation, stakeholder consultation and engagement as well as the promotion and protection of human rights in the mineral sector.

The challenges of ensuring governance of the mining sector in Africa include inadequate public participation, asymmetry of power relations among stakeholders, unequal access to resource rents, as well as a mismatch between the expression of citizens' rights in formal instruments and their implementation. Often, the lack of participatory structures allowing mining communities to effectively participate in the decision-making processes leads to violations of human rights resulting in conflicts between the industry and the communities. In designing a Country Mining Vision aligned to the AMV, measures must be taken to address the above set of structural and institutional challenges.

A key challenge to the effective governance of mineral resources in Africa is the lack of domestication into national policies, laws and institutional frameworks and standards of international transparency and accountability initiatives. In order to strengthen domestic accountability in the mineral sector, there is a need for stakeholders to own their governance processes and mechanisms. This will provide greater participation of all stakeholder in policy formulation and decision-making,

ownership of the resulting outcomes as well as legitimacy of the governance process.

CMV: Towards transparency in mineral governance

	OPACITY	TRANSPARENCY
LICENSING	non-competitive bidding	competitive auctioning
CONTRACTS	not published	published
TAXATION OF MINING COMPANIES	evasion and/or avoidance of taxes	payment and compliance with tax laws
TAX PAYMENTS TO GOVERNMENT	not published	adoption of Extractive Industries Transparency Initiatives standards
REVENUE MANAGEMENT	obscure management rules & non-investment	Clear spending rules and investing in investing
BUDGET TRANSPARENCY	closed budget process	open budget index
GOVERNMENT PROCUREMENT	single sourcing	competitive procurement

LANDSCAPE

The Africa Mining Vision has identified building blocks for effective governance of the mineral resources sector on the continent. These are:

- peace, security and political stability;
- clear, transparent, predictable and efficient legal and regulatory frameworks to ensure mineral wealth creation;
- fair and equitable fiscal regimes to facilitate equity in the distribution of benefits;
- credible public participation to enhance ownership and shape shared development outcomes;
- transformational leadership to harness mineral wealth with a view to building resilient, diversified and competitive economies; and
- strong institutions to ensure effective management of the sector.

To ensure effective mineral sector governance, it is essential to have a sound regulatory framework that is grounded in enforceable legal systems, providing for accountability, transparency, human rights and informed administration of the sector which fully acknowledges the rights and needs of mining communities. Such systems require checks and balances and the establishment of independent oversight bodies. An effective mineral legal and regulatory framework would not function without adequate protection of property rights, an effective

judicial system, and independent enforcement and oversight bodies.

Typically, the mineral resource sector in Africa is marked by the lack of transparency which results in poorly negotiated mineral concessions with fiscal terms that are sub-optimal and do not maximize the net present value of mineral investment.

Transparency in decision making and accounting for revenue is a major policy challenge in many countries. This is largely due to inadequate institutional arrangements in the management of the sector on the one hand, and inefficient revenue management systems that do not foster strategic choices of how mineral revenues are used, on the other. Revenues generated from the exploitation of minerals must be collected efficiently, managed in a transparent manner and shared equitably amongst all stakeholders with a legitimate claim over the mineral resources and their exploitation. It is essential that the management of revenue be anchored on equity in the sharing of revenue between investors and the host state / mineral resource's owners and in the sharing of revenues between different elements within the host state, in particular the allocation to communities close to or affected by a mining project. International frameworks aimed at increasing transparency such as the Extractives Industries Transparency Initiative (EITI) have become rallying points in this regard.

Frequently, mining operations result in frictions between communities and the operators, often caused by either unclear

legal regulations, lack of enforcement or unrealistic expectations. Managing this tri-sector relationship among government, mining communities and mining companies is central to building trust and gaining a social license to operate. It also facilitates the consensual agreement on shared outcomes as well as the assignment of roles and responsibilities. In order to avoid grievances that could potentially lead to conflict and even human rights abuses, governments at various levels need to develop and strictly enforce clear guidelines for distributing the benefits and wealth between the central government and local authorities and communities.

KEY QUESTIONS

Drawing from the governance landscape comprehensively described from situation analysis, the following questions will aid the preparation of the AMV-compliant governance framework. In addition, noting the sub-regional context that may be required for dealing with the complex issues relating to structural transformation and a competitive industrialised African economy, a number of measures will have to be examined to cover the governance of industries whose operations extend beyond the national frontier.

Transparency

- Does the general public have access to information on the operations of both public and private institutions without compromising commercial secrets? (Are mining contracts available to public scrutiny / Is the environmental and social impact assessment subject to stakeholder review and validation / is information on revenue payments available for public scrutiny / where special funds are set up for deposit of all revenues from extractives, is the governance structure transparent / does the agency responsible for the management of the sector have a functioning and up to date website)?
- Is the government subscribed to the EITI? (Are annual reports of mining companies available to the general public? Are the annual environmental compliance reports made public / is the composition of ownership for public companies openly reported /

are audit reports of the institutions dealing with the minerals sector, including tax authorities, open to the public)?

Tax issues

Noting that the chapter on taxation and financial issues will deal with matters relating to monitoring and controls, the following questions only refer to governance aspects of taxation.

- Are there mechanisms and instruments in place to provide fair sharing of the benefits of the mineral operations (These could include legal provisions allocating special funds for communities or other groups / does the governance of revenues take into account inter generational issues / are there legal provisions to protect the economic and human rights of all stakeholders) ?
- Do legal obligations protect artisanal miners and ensure fair returns to the work?

State participation

- Is there a state mining company (SMC) to hold state equity in mining companies, to develop strategic mineral feedstocks into the domestic economy, to facilitate mineral linkages and to facilitate indigenous entrepreneurs?
- Are there mechanisms for developing domestic mining capital, including the mineral linkages industries and indigenisation requirements?

Anti-corruption

- Do mining agreements specifically proscribe corrupt practices? Has the government systematically applied the Equator principles to mining agreements?
- Are the discretionary powers given to public officials subject to public scrutiny? (are there annual or periodic reports of the use of such powers?)
- What are the checks and balances in the law for monitoring the exercise of discretionary powers?

Fair and transparent licensing systems

- Is the system for registering and recording licenses open to public scrutiny?
- Is there a cadastral system in place for licensing, and is the system for the award of mineral rights subject to discretionary authority?
- Is there a state “Bureau of Concessions” to ensure transparent, equitable and competitive tendering of mineral properties?

Issuance of permits

- Are the systems in place consistent with international practice?
- Do mining contracts give special treatment to mining operators when using public services (waivers of visa fees / lower tariffs for non- mining specific fees)? If so what are the justifications for that?

Consultative processes with stakeholders

The chapter dealing with the process of formulating a country vision that is aligned to the AMV contains elaborate measures to ensure participation, so the following points only focus on stakeholder consultation during the mining operations.

- Is there any form of “Minerals Advisory Board” (MAB) comprising government, industry, labour and civics to assist government in assessing applications for exploration rights, developing new laws, regulations, enhancing mineral economic linkages and resolving disputes?
- Are there informal and formal arbitration mechanisms in place to deal with conflictual matters that may arise during mining operations? A related issue is whether local communities have access to specialised services in such cases, and where costs may be involved to have such access who will pay.
- Similarly are there programmes to empower community, legislative and CSO leaders to be kept abreast of developments in the sector?

Human Rights

- What are the plans for adopting and applying the UN Guiding Principles on Human Rights and Businesses?
- What are currently critical issues with regard to human rights / community relations (e.g. land issues / access to land; ethnic tensions etc), and how can these be best taken account of during mineral sector development?
- How to ensure that misconduct from either party is followed upon / punished?

As regards the sub-regional and regional elements of the Governance Framework, some questions to be raised include:

- What steps have been taken or are planned, for the management of subregional mining operations (how functional is the framework under consideration under the REC, to ensure setting up of sub-regional operations?)

OPTIONS

- The scoping exercise or strategic review should aim at identifying existing national mineral governance frameworks and assessing ways to ensure AMV-compliance and a governance capacity building strategy.
- Member states should ensure that a participatory and multi-sectoral approach is embedded in the CMV formulation process. Effective multi-stakeholder mechanisms include the Africa Peer Review Mechanism (APRM) whose capacity to diagnose systemic and structural issues as well as the specific set of indicators whilst embedding peer learning have proven to be effective.
- Countries should consider accessing AMDC in developing the CMV and benefiting from AMDC depository role of knowledge, lessons learned, challenges and opportunities from other CMV processes.
- Countries should consider the establishment of a Minerals Advisory Board (MAB) under the minerals/mining act comprising government, industry, labour and civil society organisations to assist government in assessing applications for exploration rights developing new laws regulations, enhancing mineral economic linkages and resolving disputes.
- Countries should consider the creation of a state Bureau of Concessions to ensure transparent, equitable and competitive tendering of state assets including, rights (mineral properties) and servitudes.
- Countries should consider options for promoting synergies and coordination with mineral policies adopted in the sub-region in

order to achieve sub-regional AMV compliance and regional integration. This may assist in maintaining objectivity in carrying out the exercise, and achieving the AU objective of having in place a Pan-African mineral sector regime that is impervious to harmful competition among the AU member States. It also aims at:

- improving and securing effectiveness in dealing with implications of international trade and investment regime; and
 - harnessing the benefits of regional cooperation and integration.
- Countries should consider integrating relevant international frameworks and conventions such as the UN Framework on Business and Human Rights and applicable international instruments in their national minerals sector governance frameworks.
 - CSR instruments should be integrated in the regulatory and enforcement framework to ensure alignment with national and local development planning policies that are beneficial for mining communities.
 - Establish a state mining company (SMC) to hold state equity in mining companies, to develop strategic mineral feedstocks into the domestic economy, to facilitate mineral linkages and to facilitate indigenous entrepreneurs.
 - Configure mechanisms for developing domestic mining capital, including the mineral linkages industries and indigenisation requirements.

Sources:

Africa Union (February 2009). Africa Mining Vision/

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LINKAGES, INVESTMENT AND DIVERSIFICATION

AMV GOALS

PROBLEM STATEMENT

LANDSCAPE

KEY QUESTIONS

OPTIONS

CASE STUDIES

AMV GOALS

This chapter will address linkages, investment and diversification underpinned by research, development and innovation as a pre-requisites for an industrialisation policy-based value addition to mineral products. The AMV goals to this end are:

1. *To create a knowledge-driven mining sector that is a key component of a diversified, vibrant and globally competitive industrialised African economy.*
2. *To create a mining sector that catalyses and contributes to broad-based growth through upstream, downstream, sidestream and infrastructure linkages.*
3. *To increase the level of investment flows into mining and infrastructure projects to support broad socio-economic development.*

-- based on The Africa Mining Vision (2009)

The overall purpose is to promote linkages development between research development and innovation (RDI), the mining and other economic and social sectors, through knowledge creation, greater domestic financing, and an integrated approach to mineral development.

PROBLEM STATEMENT

Mineral resources are a finite national asset and will inevitably be depleted.

The only way that minerals can be (indirectly) sustainable is through fiscal and mineral economic linkages. This is at the core of the Africa Mining Vision (AMV). Of core importance is the promotion of fiscal linkages whereby resource rents are reinvested into long-term human, social and physical infrastructure to replace the resource capital lost with new capital (this is dealt with under revenue management) that can outlive mining. The direct mineral linkages include up- and downstream value addition (mineral beneficiation), knowledge linkages – science, technology, engineering, and mathematics (STEM), skills and research development and innovation (RDI) – and spatial linkages (by optimising the use of mineral resource-based infrastructure to promote broader development).

The only countries which have industrialized from their use of mineral resources are those that have utilized these seminal linkages.

LANDSCAPE

Minerals embody a distinct intrinsic growth potential, which if properly exploited and managed, can alter Africa's debilitating economic position. Experience from Finland, Sweden and Australia indicates that achieving the desired outcome requires the development of economic linkages. There are four types of mineral linkages along the mineral value chain: upstream (or backward) linkages, downstream (or forward) linkages, spatial and sidestream linkages.

Upstream (or backward) linkages refer to the various direct and indirect inter-firm relationships connecting an industry with its suppliers or supply chain. These include specialised manufacturers, input providers, agents and distributors and service suppliers. Upstream linkages are the first to arise in a mineral project, and first to wane when it eventually closes down.

Downstream (or forward) linkages reflect the interconnectedness of a specific sector to other sectors in the economy that consume its output. The value of the mineral (by weight) relative to its original value generally rises at each stage of the downstream or forward linkages, with some reaching by as much as a factor of 400. For example, the unit value of copper in a motor is 117 times relative to that contained in cathode copper; and can be as much as 173 times for gemstones in jewellery, or even as high as 5000 times per carat in a polished diamond.

Mining, by virtue of the scale and scope of activities involved, also creates the need for other industries (or sidestream linkages) such as stock markets, financial services, utilities, logistics, communications, skills and technology development and innovation (RDI). As one moves further down the mineral value chain, the influence of inputs such as research and development (R&D), skills, technology and infrastructure on upstream and downstream linkages increases significantly.

Sidestream linkages underpin the viability of other sectors not directly related to mining in an economy and are deliberately promoted in many mining countries, such as Canada and Australia.

However, despite these potential financial, economic and social benefits, upstream and downstream linkages between the minerals sector and the local economy in Africa are weak. Mineral products are generally exported in raw or partially processed forms. Most inputs for mineral-related activities are also imported.

This chapter explores the constraints to the development of linkages and emphasizes that the development of upstream, downstream and sidestream linkages are critical for economic diversification. It also highlights that the real transition, from a primary commodity exporter to a high-technology, knowledge-intensive economy, requires developing more dynamic linkages. These lead to the export of capital goods and expertise in fields

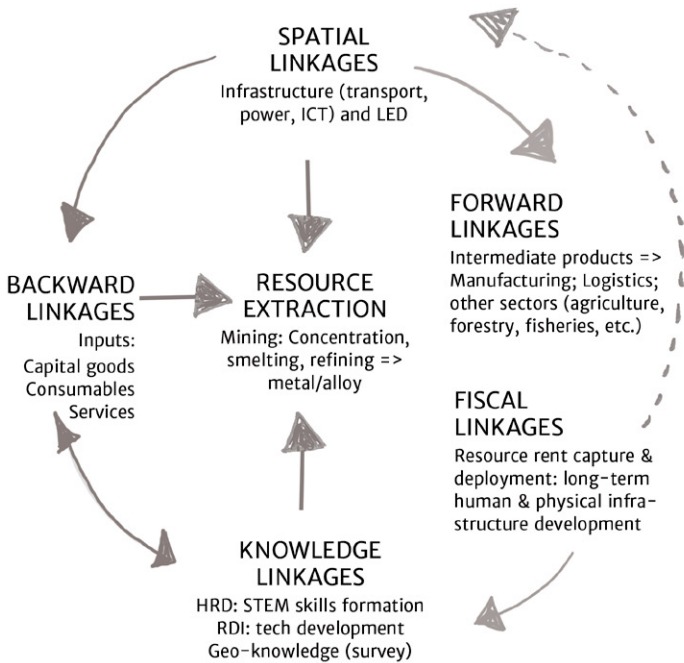
such as process control, construction equipment and materials-handling, which can be used across a wide number of economic sectors in addition to mining. This is referred to as the lateral migration of technology. Lateral migration linkages generally only emerge in advanced stages of industrial development.

In exploring the options for linkages development in the African context, it is important to look beyond the traditional focus on export minerals of value in international trade, and to also consider the development potential of a broad array of industrial minerals such as limestone within national and regional economies, which, invariably, are neglected in most African countries. Yet, the entry barriers to their full development and integration in the local economy are less daunting than with the majority of traditional export minerals and metals.

The African continent, however, faces many constraints in the pursuit of mineral beneficiation and value addition. A general lack of appropriate policy frameworks and strategies to drive the industrialization, value addition and beneficiation agenda is a major constraint in most countries. Where available, the policy frameworks are normally not supported by appropriate laws and regulations. In addition, in most cases, there are no clear targets, timelines and indicators of achievement on beneficiation and value addition. Institutions with well defined mandates to monitor and evaluate progress are not put in place. The other major constraints to beneficiation and value addition include the poor collateral use of infrastructure. This is a critical determining

factor in the industrialisation process and directly affects the degree of agglomeration of upstream and downstream industries. Sub-Saharan Africa’s infrastructure (power, road, rail and ports) is generally inadequate. Constraints arising from international trade regimes (such as WTO rules and bilateral investment treaties) and from procurement practices of international mining companies are not well understood.

MINERAL LINKAGES:
Knowledge linkages are a prerequisite for developing back/forward beneficiation linkages



KEY QUESTIONS

The objective of this chapter is to inform the scoping phase in establishing the level of engagement, evaluate the level of AMV implementation to help assess the volume of work and time framework required to accomplish the goal of the linkages and diversification. The following questions are intended to aid this process of enquiry.

Developing Downstream or Forward Linkages

- What are the national policies and strategies and enforcement mechanisms for the promotion of industrialisation, beneficiation and value addition?
- What is the current status of the policy, legal and regulatory environment for industrialization, beneficiation and value addition?
- What is your current estimate of the local value added in the purchase of goods and services by the mining industry?
- What is the current state of physical infrastructure (transport, power, water, ICT, etc.) and how do you address the infrastructure constraints?
- What are the critical strategic mineral feedstocks into your domestic economy (manufacturing, infrastructure, agriculture, etc.)?
- How do international and bilateral agreements (WTO, EU EPAs, BITs, etc.) constrain national beneficiation and value addition policies and strategies?

Upstream or Backward Linkages

- Do you have a local content policy?
- To what extent do the procurement policies of mining companies constrain backward linkages (local content)?
- Does the country have clear targets and timelines for progressing the up- and downstream knowledge and spatial linkages?
- What are the constraints of the state in planning for integrated development?
- What policies / strategies / instruments / actions do you have to improve the business environment in your country?
- What are the available resources to finance business development and infrastructure?

Sidestream Linkages

- What policies / strategies / instruments / actions can be used to manage / minimize constraints imposed by international agreements?
- What are your strategies for promoting STEM skills, technology development, research development and innovation (RDI)?
- How do you ensure national policy harmonization (mineral, industrial, investment, infrastructure, trade, agricultural, fiscal, education and ICT policies)?
- What policies and strategies do you have in place to promote sustainable economic diversification?
- Does your country have a category of strategic mineral feedstocks for the domestic economy that carry extraction and pricing conditions?

- What are your policies, strategies and initiatives for tapping the regional initiatives to promote linkages and diversification?

OPTIONS

To harness opportunities inherent in mineral-based linkages in Africa, as well as promote RDI and infrastructure development, a number of tools and strategies are recommended. Establishing a well-linked (with the local economy) mining industry cannot be done overnight and simply through vision statements and government proclamations. The visions on mineral linkages and diversification must be complemented by well-designed policies, strategies and supporting laws and regulations. Clear targets and timelines need to be defined and instruments to monitor implementation put in place. It requires continued and long-term investments in human resources development, technology acquisition, research and development, infrastructure expansion and a very good understanding of mining global supply and procurement chains. The agenda must be informed by very sound economic and business fundamentals and scoping studies to help prioritise investments. Illustrative case studies provide ways of promoting such linkages.

The following are the recommended tools/strategic options:

Developing Upstream or Backward Linkages

- Create a business environment and public sector institutions that enhance coordinated mineral sector integration into the broader economy, encompassing clear, transparent and predictable rules and procedures of doing business.

- Set terms for access to mineral resources, requiring investors to structure projects in ways that integrate them into the broader economy and local supply chains through downstream, upstream, spatial and knowledge linkages including lateral migration linkages.
- An "RRT-local content offset" could be used to incentivise the mining company to facilitate increased upstream value addition. Such an industrial strategy offset instrument could also approach revenue neutrality.
- In collaboration with other countries, ensure that international trade and investment agreements (e.g. EU EPAs) do not constrain the ability of African countries to develop local up- and down-stream beneficiation industries.
- Investigate the judicious use of tax instruments and infant industry provisions to encourage beneficiation and value addition (note that this is prescribed in the EU EPAs).
- Develop policies and options for domestic resource mobilization that encourage private sector involvement in infrastructure development, including PPPs (regional and continental context) and tender of mineral properties against, inter alia, provision of infrastructure.

Developing Downstream or Forward Linkages

- Develop integrated policies and strategies to enhance mineral value added along the value chain (including beneficiation, local content, STEM HRD, RDI and employment of national milestones as part of licensing requirements) in a fully participatory process. For example:
 - % value addition (VA) above a designated "base state" (concentrate, matte, metal, alloy, etc.) to be achieved by year 5, 10, 15 and 20 of license/lease;
 - % local VA in purchases of goods and services (local content) to be achieved by year 5, 10, 15 and 20. This should be further incentivised for the degree of indigenous ownership and management;
 - Minimum local spend of, say, 5% of company payroll on STEM skills development in country;
 - Minimum local spend of, say, 3% of company VA on accredited RDI in country;
 - Maximum percentage of expatriates employed in management and professional categories by year 5, 10, 15 and 20.
- Channel mineral rents to minerals development (geo-survey), capital accumulation, development of STEM skills and infrastructure development.
- Introduce an RRT to capture a portion of the unearned resource rents and offset (reduce) the rate by the degree of downstream beneficiation, above a base state. For example, a 50% RRT on iron ore mining could be reduced by 1% for every further 10% of value addition above the FoB port value of the ore, thus an iron

reduction plant (pig, DRI, HBI) would treble the value and thus reduce the RRT rate from 50% to 30%. Such a "tax-beneficiation offset" could approach revenue neutrality due to new tax revenues from the beneficiation plant (CIT, PAYE, VAT/GST, excise, etc.)

Developing Sidestream Linkages

- Provide incentives to foster innovation, such tax breaks for accredited RDI.
- Enhance local linkages development through local participation and empowerment models (indigenisation, BEE) that do not promote "fronting" by local companies.
- Allocate a specific proportion of revenues to STEM skills development and RDI, possibly disbursed via the PPP STEM Skills Fund and the RDI Fund below.
- Establish a Minerals RDI Fund as PPP with industry, higher education entities, donors and government which could disburse funds from the minimum RDI corporate spend in mining licenses.
- Establish a Minerals STEM Skills Fund as PPP with industry, higher education entities, donors and government which could disburse funds from the minimum STEM skills corporate spend specified in mining licenses.
- Develop mechanisms to facilitate collaboration among RDI institutions, possibly through the Minerals RDI Fund (above)
- Investigate the use of resources for infrastructure and beneficiation deals as a method of financing infrastructure development (example India and Brazil on iron ore for steel plants) being cognizant of the experience of other African countries.

- Where appropriate, ensure that mineral infrastructure (roads, rail, ports/terminals, power, water) contains provisions for third party access at non-discriminatory tariffs.
- Develop a system for designating critical mineral feedstocks into the domestic economy (such as iron/steel, polymers from fossil fuels, fertiliser mineral (NPK) and cement) as strategic minerals that may carry extraction/export constraints and developmental pricing for domestic value-addition.
- Promote and support technical and entrepreneurial skills through special financial vehicles such Venture Capital Funds (VCFs), together with the mining companies (or Chamber of Mines).
- Develop strategies and scoping studies for regional mineral-driven spatial development corridors, particularly for bulk minerals (coal, Fe ore, Mn ore, etc.) where the substantial infrastructure (rail / road, port / terminals, power, water) could be co-used to catalyse other sectors (agriculture, forestry, manufacturing, etc.) which are sustainable.
- Develop regional linkages development strategies with neighbours, and within RECs, to increase the economies of scale (markets) for potential inputs and beneficiation industries that cater for the inclusion of regional production within the qualifying scope of incentives or conditions. For example, the local content targets in mining licenses could include imports from the REC, but at a discounted percentage of the value added in that country (e.g. imports from a neighbour could be credited with, say, 80% of their VA in the product/service supplied).

CASE STUDIES

Linkages in the phosphate industry: Morocco

Morocco is the largest exporter and the second-largest producer of phosphate, after the United States. The International Fertilizer Development Centre in 2010 put Morocco's share of global phosphate resources at 85 per cent. The phosphate industry dominates mining, accounting for about 95 per cent of mineral production in 2009. The industry is run by a state company, Office chérifien des phosphates, responsible for managing and controlling all aspects of phosphate mining and beneficiation.

The country has a large downstream phosphate chemicals sector. The main products are phosphoric acid and phosphate-based fertilizers. Phosphoric acid in 2009 amounted to 2.8 million tonnes, for which India was the largest customer. Fertilizers amounted to 2.4 million tonnes. Morocco has several phosphate-based chemical plants with Maroc Phosphore II, at Safi, one of the largest phosphoric acid complexes in the world.¹ In 2008, Office chérifien des phosphates began a \$12 billion expansion plan that aims to double phosphate production by 2015.

Empowerment Models: South Africa

The Mineral and Petroleum Resources Development Act (2002) required mining and prospector rights holders to apply for conversion of existing mining rights from old order to new order mining rights within five years (or rights would revert back to the state). Applicants were required to comply with the terms of the Black Economic Empowerment Act of 2003 and the Mining Charter, as follows:

The Broad-Based Socio-Economic Empowerment Charter for the South African Mining Industry (2005) provided for:

- Historically disadvantaged South Africans (HDSA) to be given preferred supplier status in the supply of capital goods, services, and consumables.
- Existing suppliers to be encouraged to partner with HDSA companies when tendering.
- Stakeholders to commit to enhancing HDSA procurement capacity.

The original Mining Charter scorecard (used for the conversion process between 2004 and 2009) asked the following Yes/No questions:

- Has the mining company given HDSAs preferred supplier status?
- Has the mining company identified current level of procurement from HDSA companies in terms of capital goods, consumables, and services?

- Has the mining company indicated a commitment to a progression of procurement from HDSA companies over a 3- to 5-year time frame in terms of capital goods, consumables, and services and to what extent has the commitment been implemented?

The conversion process (and any new mining rights) also required a local economic development program, including a procurement progression plan for Historically Disadvantaged South African (HDSA) companies. However, the model has worked in some areas but failed to deliver in local value addition. Furthermore, experiences such as the fallout of the Marikana tragedy needs to be factored in.

Botswana's downstream diamond value chain

In 1980, the government of Botswana formulated a beneficiation policy and strategy to establish a local diamond cutting and polishing industry, as an extension of forward production linkages from the diamond sector. The beneficiation strategy was as part of an effort to reduce the country's heavy dependence on mining, increase employment and deepen linkages in the extractive sector. The strategy included the formulation of policies for enhancing competences further down the diamond value chain, including in jewellery manufacture and trade, which are still under development.

In 2005, the government and De Beers reached an agreement which stipulated that—over time, the forward linkages would move beyond cutting and processing towards a stage where Botswana would become a locale for diamond sighting, sales and distribution. This meant that contrary to a century old practice where the aggregation of diamonds took place in London, increasingly these transactions would be located in Botswana. While this is an example whereby substantial and dynamic forward linkages are driven by government policy rather than market forces, the issues at stake are whether the Botswana diamond cluster will be globally competitive in the future and the extent to which these forward linkages will embody domestic value added. It is yet too early to determine the merits of the government diamond beneficiation and value addition strategy.

Source:

Mbayi (2011) amended from Morris, Kaplinsky and Kaplan (2012) *One Thing Leads to Another—Promoting Industrialisation by Making the Most of the Commodity Boom in Sub-Saharan Africa*

Other examples:

The South African DTI has recently completed several detailed Mineral Value Chain (MVC) strategies reports, on Ferrous

minerals (Fe, Cr, Mn), Polymers (coal, gas), PGMs, Titanium (South Africa, DTI 2014 – found at <http://www.thedti.gov.za>)

The SA ANC State Intervention in the Minerals Sector (SIMS) is also a useful source (ANC 2012 hosted at <http://www.anc.org.za>)

Zimbabwe 2012: Towards a developmental minerals policy for Zimbabwe and Draft Minerals Development Policy (<http://www.mines.gov.zw/downloads/summary/5-mineral-policy/15-draft-zimbabwe-minerals-policy-v3-pdf>)

ENVIRONMENT AND SOCIAL ISSUES

AMV GOAL

PROBLEM STATEMENT

LANDSCAPE

KEY QUESTIONS

OPTIONS

CASE STUDIES

AMV GOAL

"A sustainable and well-governed mining sector that effectively garners and deploys resource rents and that is safe, healthy, gender and ethnically inclusive, environmentally friendly, socially responsible and appreciated by surrounding communities."

-- The Africa Mining Vision (2009)

This chapter explores environmental and social challenges associated with the exploitation of mineral resources. It stresses the importance of developing and enhancing policy frameworks to promote a sector that contributes to Africa's socio-economic development. It also explores the human rights challenges often associated with mineral exploitation, and emphasizes the important role which the collaboration of mining companies, governments and communities can play in contributing to societal development and hence overall sustainable development.

PROBLEM STATEMENT

Africa retains the environmental and social burden of mining. This reduces the benefits of minerals exploitation when associated costs are considered. The poor management and regulation of negative environmental and social impacts of mining have fuelled criticism and, in some cases, hostile attitudes towards the mining industry and governments among communities affected by mining, and by a range of civil society organizations. These impacts can be reduced and mitigated through inclusive and consultative processes.

Environmental and social impacts of mining



LANDSCAPE

A key issue which frames environmental and social issues associated with mining is land use policies and practices. In many countries the absence of or the lack of enforcement of clear and coherent policies on land use, including criteria for determining priority for a particular use, have been factors in the social and environmental problems generated by mining. Experience across the African continent points to the need to deal with the problem, with measures which include defining clear criteria for the creation and protection of particular areas against all kinds of mining activities.

Direct environmental and social challenges are primary, such as displacement of communities and disruption of livelihoods, pollution of water bodies and ground water, social conflicts, post-mine closure issues, community and workers' health, safety, pay and gender. Other major challenges in the sector include the implementation of environmental laws and frameworks, the instruments and institutions for impact assessments, and the relations between mining companies, government and mining communities.

The key issues with respect to the relationships amongst mining companies, governments and communities include the right to information, corporate social responsibility, community development agreements, and community consultation.

Environmental and social impact frameworks and mechanisms are generally well developed internationally, and environmental and social impact assessment processes (standards) have become mandatory pre-requisites for the approval of mining projects. However, these standard instruments for assessing and regulating the mining impacts are under-applied in most African countries. Further, countries that have developed relevant legislative and regulatory frameworks often lack the capacity to implement and monitor compliance. These countries often lack capacity to mainstream strategic environmental impact assessments into legal and regulatory frameworks. In addition, these policy and implementation limitations are more pronounced in relation to the evaluation of social costs, particularly those borne by mining communities and others living close to mining operations. Further, the methodologies for evaluating less visible impacts, such as those on under-groundwater systems, are not as well elaborated or incorporated into legislation, compared with the other more visible impacts. This is an area that still requires major work as the African policy framework evolves.

The inclusion of the right to a clean environment in some African constitutions provides a basis upon which citizens are empowered to engage mining companies and compel them to implement environmentally sensitive practices. Provisions in some of these constitutions impose obligations on state organs with respect to the environment. Such important tenets need to be strengthened and supported across the continent. Issues such as disruption to land access, diversion of river systems, human rights violations

and increased population pressures can all contribute to the disruption of local community lifestyles and can be a source of local resentment of mining projects and activities. The policy framework for compensation and dispute resolution should facilitate the amicable and acceptable resolution of these challenges.

Social impact assessment policies have to address the disruption of livelihoods caused by resettlement to make way for mining operations and also provide guidelines for compensation. For example, it should be mandatory for companies to improve or at least restore the livelihoods and standards of living of displaced persons in the case of unavoidable resettlement. Strengthening of public participation methodologies in the assessment of the environmental and social impacts of mining projects is important. The importance of initiatives such as the Kimberley Process Certification Scheme, the Extractive Industries Initiative, and the African Peer Review Mechanism in helping prevent conflict minerals from reaching the international market, and in enhancing revenue transparency in the sector, is highlighted. Legal and regulatory frameworks for addressing environmental and social impacts of mining activities should include the enforcement of impact assessment requirements for all projects. Regulatory standards should require public consultation and public participation prior to project implementation, and strong mechanisms for public access to information. To this end, the numerous international instruments and templates that exist to

address these developmental challenges should be adapted to local conditions.

Mine closure issues represent a major set of social, environmental and economic challenges. Policies and laws must make adequate provisions for the managing and funding the costs of mine closures. Provisions include the posting of mine closure bonds by companies, progressive rehabilitation of mines, planning for management of residue impacts and for post-mine closure economic activities. It is important that these are planned for at the inception of mining projects.

Mechanisms for dealing with conflicts induced by mineral exploitation at both national and continental levels should be enhanced by strengthening governance capacity, transparency in revenue collection and sharing, transparency in the allocation of mining licenses, certification processes for minerals, reform of security, and regulation of multinational companies. A creative and holistic approach to tackle the environmental and social challenges is required in order to entrench the sector's developmental role and avoid any conflicts which may arise.

International commitments on sustainable development, such as the Johannesburg Declaration, provide an impetus for corporate social responsibility (CSR), assert the need for corporate accountability, and highlight the duty of the private sector to contribute to the emergence of sustainable communities in mining areas. The concept of a social license to operate has

become part of the business conduct internationally and helps ensure companies take their environmental, social, community development, labour, and human rights issues seriously. CSR frameworks should further incorporate the need for extensive consultation with communities. Frameworks should also allow for the periodic review of obligations to incorporate emerging challenges.

KEY QUESTIONS

- What land use policy and laws exist and what criteria do they provide for permitting or prohibiting mining activities in specified areas?
- What policies and legislation are in place to prevent and mitigate environmental and social impacts of mining?
- Are gender issues mainstreamed in your policies, laws, regulations and procedures?
- Are the principles of Environmental Impact Assessments (EIA) – including strategic environmental, social, human rights, and health – mainstreamed into national mining policies, laws and regulations?
- Do you have institutions for undertaking impact assessments (strategic, environmental, human rights and health) and enforcement of environmental rules and penalties for violations?
- How do you rate the capacity of these institutions?
- What are the procedures and mechanisms for ensuring policy coherence and institutional coordination on environmental and social issues related to mining?
- What are the provisions in your policies, laws and procedures for public consultation/participation in project design and policy making and public access to information?
- What policies do you have for dealing with loss of land rights, displacement and disruption of livelihoods by mining projects (compensation, relocation, employment, alternative livelihood programmes)?

- Do you have a policy framework, legislation and regulations for dealing with post-mine closure issues such as the rehabilitation of mine sites?
- What policies, laws and institutional arrangements do you have for the protection of the rights, health and safety of workers in the mining sector, including artisanal and small-scale mining (ASM)?
- Have you ratified and domesticated the relevant international conventions on human rights, labour, health and safety, e.g. International Labor Organization (ILO) convention no. 176 of 1995 on health and safety in mines?
- What is the government's policy for addressing the development challenges (health, employment, social amenities, etc.) in communities affected by mining?
- Is there a public policy framework, including a template, for Community Development Agreements between mining companies and affected communities?
- Are there any government policies and procedures aimed at building the capacity of communities to negotiate community development agreement?
- Is there a framework which establishes criteria for corporate social responsibility (CSR) projects by mining companies?
- What strategies are in place to address grievances, disputes and conflicts arising from mining?

OPTIONS

- Develop clear land use policies and laws, including setting criteria for permitting or prohibiting mining activities in specified areas.
- Develop relevant policy, legislation, regulation, and implementation mechanisms and enforcement tools to address environmental and social issues.
- Mainstream the principles of impact assessments (including strategic, environmental, social, human rights, health) into national mining policies, laws and regulations. Improve capacity of state institutions for environmental protection and regulation.
- Improve skills, standards and knowledge of state institutions for environmental management.
- Develop policies and laws for the management of post-mine closure issues.
- Develop environmental mitigation strategies and plans, including monitoring and evaluation.
- Develop a sustainable environmental, social, health and safety strategy to reduce or eliminate the adverse impacts of artisanal and small-scale mining (ASM).
- Build capacities of communities, ASMs and Civil Society Organizations (CSOs) to negotiate community development agreements and benefits.
- Develop guidelines for emergency response, risk reduction and disaster preparedness.

- Develop mechanisms to address grievances, dispute and conflict resolution, including the establishment of the office of an Ombudsman.
- Develop a framework and criteria for CSR projects for mining areas.
- Develop guidelines for compensation, relocation, resettlement and alternative livelihoods.

CASE STUDIES

Mining an ecological hotspot: Sangaredi Mine, Guinea

The Sangaredi Mine in the Upper Guinea Forest falls within one of the world's most biologically-rich, yet seriously threatened, ecosystems. Recent biological assessments of the area surrounding the bauxite mine and proposed alumina processing facility identified 5 reptile species, 17 amphibian species, 140 species of birds, 16 species of mammals and 8 primate species, including the endangered West African chimpanzee and western red colobus.

The Sangaredi Mine is Guinea's largest and most profitable mine. It is a vast open pit approximately 20 kilometers from one end to the other. A proposed alumina refinery, about 25 kilometers west of the mine, is expected to bring a \$3,000-million capital investment, thousands of jobs, and infrastructure development. The consortium building the refinery is working with Conservation International to incorporate ecological considerations into the plans. A biological assessment of the area was conducted as a part of the process.

Bauxite ore is mined in open pits, requiring the removal of vegetation and topsoil. Bauxite mines and alumina refineries typically create serious ecological problems. Alumina refining

produces highly caustic “red mud” that negatively affects surface and groundwater quality.

In addition to direct environmental impacts, the increased population and infrastructure development associated with the mine will likely put immense pressure on this environmental hotspot.

Source:

UNEP (2008), extracted from ISG Report on Minerals and Africa's Development 2011, p. 47

The AKOBEN Program of Ghana's Environmental Protection Agency

Mobilising Public Opinion for Good Behaviour

The AKOBEN program is an environmental performance rating and disclosure initiative of the Environmental Protection Agency (EPA), Government of Ghana. Under the AKOBEN initiative, the environmental performance of mining and manufacturing operations is assessed using a five-color rating scheme. The five colors are GOLD, GREEN, BLUE, ORANGE and RED, indicating environmental performance ranging from excellent to poor.

These ratings measure the environmental performance of companies based on their day-to-day operations once they have successfully cleared their Environmental Impact Assessments

(EIA) and obtained their environmental permit to operate. These ratings indicate how well companies have met the commitments they made in their EIAs at the planning stage. AKOBEN, therefore, complements the EIA process and serves as a monitoring and verification program to ensure that companies follow environmental regulations on a continual basis.

These ratings are annually disclosed to the public and the general media, and it aims to strengthen public awareness and participation. AKOBEN ratings are evaluated by analyzing more than a hundred performance indicators that include quantitative data as well as qualitative and visual information.

Environment: rating methodology

AKOBEN	
GOLD	EXCELLENT
GREEN	VERY GOOD
BLUE	GOOD
ORANGE	UNSATISFACTORY
RED	POOR

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The objectives of the Country Mining Vision (CMV) guidebook are to help member States domesticate the Africa Mining Vision (AMV) at the national level through a multi-stakeholder consultative process with a view to formulating a shared vision on how mineral resources exploitation can promote broad-based development and structural transformation of their respective countries.

The guidebook offers a step-by-step guide for strategic assessment, identification of instruments for policy dialogue, and mechanisms for conducting stakeholder consultation, along with the steps for policy design and for the formulation of a CMV implementation, monitoring and evaluation tool.



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