

**Approaches to formalization  
in the artisanal and small-scale gold mining sector  
based on experiences in  
Latin America, Africa, and Asia**

**EXECUTIVE SUMMARY**

## **Introduction**

This document provides information to policy makers and other interested stakeholders in the formalization of this sector of the mining economy. Important inputs for this report were derived from the analyses of experiences with formalization described in the case studies of Ecuador, Peru, Tanzania, Uganda and Mongolia.

The goal is to initiate a constructive conversation and present manageable suggestions to public policy makers without underestimating the complexity and the multidimensional nature of ASGM public policy issues. The report proposes a conceptualization and an approach to ASGM which serve as the foundation for most of the recommendations of this document.

The key finding is that, despite many challenges, experience shows that the ASGM sector can transform itself when enabling regulatory, economic, and other conditions are created.

## **I. A New Understanding and Approach to Public Policy for ASGM**

In the last 20 years, ASGM has become a growing source of employment in less-economically developed countries (LDC) and developing countries but formalization is still a challenge and its absence constitutes the root of a substantial number of problems and negative impacts associated with ASGM.<sup>i</sup>

### **A. ASGM as a Complex Global Challenge and Opportunity**

ASGM has proved to be a significant contributor to the economic development of these countries, particularly the rural areas. However, in order to address key opportunities for positive change and the potential transformation of the ASGM sector, it is also crucial to recognize the negative impacts that ASGM brings to these economies. Mercury contamination is perhaps the most widely known contributing factor to environmental and social problems affecting miners, surrounding communities, and ecosystems.<sup>ii</sup>

Given these conditions, the equation between negative and positive impacts for ASGM is not easy to calculate.<sup>iii</sup> Nevertheless, in recent years there has been a growing official recognition that ASGM is an activity that has the potential to make a significant contribution to poverty alleviation. In order to realize this potential support must be provided to overcome the problems mentioned above.<sup>iv</sup>

It is acknowledged in the literature that there is a direct relationship between negative impacts and legal informality. Full realization of the potential benefits from ASGM is not occurring because of the situation of informality, the resulting illegality of the activity, and associated environmental impacts.<sup>v</sup>

While it can appear to be transitory due to its characteristically short-term nature, dependent on workers' individual savings, the available evidence strongly suggests that ASGM is unlikely to diminish as an economic activity in the short term.<sup>vi</sup> On the contrary, the ASGM sector has been growing globally for the last 20 years and is a persistent reality in most LDC and developing countries with gold mineral potential.

### **B. Why Formalization and Legalization of ASGM is a Difficult Task**

An ILO questionnaire, done as part of a 1999 report on 28 ASM countries,<sup>vii</sup> concludes that:

The proportion of illegal mines – those operating without the necessary authorization – varied from 5 to 80 per cent (...) In half of the countries, 30 per cent or more of small-scale mines were reported as operating illegally. If these figures can be considered a valid sample, the extent of illegal small-scale mining is very high and so, therefore, are the likely financial losses to the countries and regions most affected.

The association between illegality or informality and ASGM activities is so common that it is considered to be an inherent characteristic of ASGM.<sup>viii, ix</sup>

Underlying this perception is the complexity and difficulty of legalizing and formalizing the activity. To navigate successfully through this complexity it is important to answer the question, “why is formalization such a difficult task?” It is possible to identify several important reasons:<sup>x</sup>

- the differences between ASGM and LSGM.
- the “open access” nature of the mineral deposits exploited by ASGM.
- difficulty in understanding the ASGM phenomenon, in particular, as
  - an economic sub-sector of the mining sector.
  - the result of geology that allows for the simplified extraction of minerals.

In practical terms, this means that the responsibility for the current high levels of illegality is not only due to lack of political will or interest from the producers, but rather that ASGM represents a real challenge that requires creative and flexible approaches to legalization and formalization. Experience suggests that, in order to successfully address this challenge, these approaches must integrate command and control measures with economic incentives and institutional and organizational measures.<sup>xi</sup>

### C. Formalization as a Process – Vision and Key Objectives

*The terms “legalization” and “formalization” often are treated as synonymous but they refer to distinct concepts. Legalization is just one dimension of the process of formalization, which is a broader concept. Formalization, as a process that seeks to integrate ASGM into the formal economy, can only be successfully achieved if programs and public policy deal with the different dimensions of ASGM activities simultaneously and in an integrated way.*

Based on the evidence in the literature and case studies, it is important to understand that ASGM formalization is a *process* and not a singular, discrete action in a particular moment. This approach is critical because it underscores the ideas of continuity, participation of relevant actors, and incremental progress. It follows that this will necessarily be a multidimensional and multi-stakeholder process because of the different elements of formalization and the diverse actors involved in, and impacted by, the process.<sup>xii</sup>

## II. Key Issues and Lessons Learned from Global Efforts Related to Mining Legal Frameworks<sup>xiii</sup>

The development of legal frameworks for ASGM is still in its early stages and there is space for more comprehensive, integrated, and realistic approaches. The following section identifies the main opportunities and challenges that ASGM mining regulatory frameworks are now exploring and promoting.

### A. Mining Titles and Related Generic Obligations and Rights

A mining title is the first legal requirement for performing any mining activity and without it, in principle, it is not possible to mine legally. The mining title defines the rights and obligations of the holder. The title also ascribes potential market value to the mining operation (depending on the rights and obligations associated with the mining title). The need for simplification of measures governing ASGM.<sup>xiv</sup> given potential capacity limits for these stakeholders, is critical for both miners and government authorities responsible for oversight in this sector. In relation to mining titles, the following issues are considered critical:

### ***i. ASGM Definition***

It is essential to distinguish between ASGM and other mining activities in legal frameworks and for ASGM mining titles. A proper definition of ASGM can be key in this achievement.

### ***ii. ASGM Categories***

Within ASGM there is an equally important need for categories that allow for different mining licences, which can respond to the diversity of the sector. The literature is unanimous about the need for simplification of the procedures for ASGM, but it must be noted that responsible, effective simplification that pays attention to the size of the mining operations and promotes protection of the environment and communities as much as the workers, can only be achieved through diverse ASGM categories. Categorization can help to simplify the administration of titles.

### ***iii. Phases of the Mining Cycle***

The phases of the mining cycle include recognition, exploration, exploitation, beneficiation (processing), refining (smelting), and commercialization. In LSM licences are often granted for each phase (except commercialization). There is scope for simplification because in most ASGM operations the exploration and exploitation phases occur simultaneously with beneficiation/processing. It is possible, perhaps even desirable, for the mining title to allow for the execution of processing activities without additional licences except when the processing plant reaches a specific size or when processing occurs without any mining extraction activities.

Linking titleholders to specific mining operations is critical if environmental and social responsibilities bestowed by the mining titles/licences are to be upheld.

#### **Box 1. Considerations for ASGM Categories**

1. The objective of an ASGM definition in public policy is to be able to identify and distinguish it from other mining activities.
2. It is important that the definition does not create any obstacle to the evolution and progress of the activity, which means terms like “illegal”, “primitive”, or “rudimentary” should be avoided.
3. Different mining titles for different categories of ASGM allow for simplification of the administrative and technical procedures.
4. Within each category there should be one mining title for all phases of the mining cycle.
5. The people (e.g., labourers, operators, manager, etc.) that work in the mining title area should have contractual relationships with the holder of the title.

## **B. Other Requirements for the Attribution of Mining Title**

Key themes are the adjustment of mining title regimes to fit ASGM conditions. The following aspects are considered critical in the design of mining titles:

- Designating areas for mining activity.
- Duration and renewal of mining titles.
- Persons permitted to undertake ASGM activities.
- Transfer of rights and mining titles upgrades.

**Box 2. Considerations for Designing Mining Titles or Licences for ASGM**

1. The size of mining area should be treated as an instrument of public policy that can have positive or negative economic impacts on the operations, on the stability of the people that work in the operations, and on the social fabric of the local community.
2. Reserves or dedicated areas for ASGM in most cases are difficult to implement because they can be costly and demanding for governments to enforce. This approach may prove effective in communities that have special territorial rights (e.g., indigenous communities).
3. Participation of the community in the demarcation of the area is essential, as is the concept of exclusivity for ASGM to operate in the area.
4. Opportunity for renewal of the title is important for mining operations because it allows for investment, and continued work until the deposit is exhausted. It is important for the government in its function of promoting the best practices in extraction of mineral resources.
5. Diverse forms of legal business entities to be holders of artisanal and small-scale mining titles should be allowed.
6. Association promotes a formalized and entrepreneurial sector and should be encouraged with clear, concrete measures: economic incentives, simplified legal requirements for associations and partnerships, and allowing different business models (e.g., consortium, joint venture, and old concepts like the “*comandita*” company).
7. Restricting ASGM mining titles to nationals may be important to fully realize the role of the sector in poverty alleviation.
8. Transfer and upgrading of mining titles through the regulatory framework is essential to create the legal conditions for better management of mining operations.

### III. Environmental Legal Frameworks to Control the Use of Mercury and Other Major Environmental and Social Impacts<sup>xv</sup>

#### A. Environmental Assessment Instruments and Environmental Licences

In most countries, obtaining an environmental licence is part of the legalization process for ASGM. This licence typically requires an environmental impact assessment (EIA) and an environmental management plan outlining measures to prevent or mitigate potential impacts.

**Box 3. Considerations for Environmental Licences in ASGM**

1. Evaluation of the impacts and specific guidelines for addressing them should be required for all categories of ASGM.
2. Environmental instruments such as EIA, management plans, and requirements for attribution of environmental licences should take into consideration the potential negative impacts that different sizes of the mining project generate.
3. Simplification of environmental requirements (e.g., one title that includes the environmental licence and management plan) without reducing the quality of environmental management is valuable for mining operations as well as government with respect to capacity to meet regulatory demands.

## **B. Pollution Control Regulations**

In the case of the ASGM sector, prevention or minimization of pollution is related more to the regulatory measures analyzed in this section, such as for mercury and cyanide, than it is to the licences *per se*. This is because pollution control measures for ASGM that are prescriptive and specific (while avoiding the creation of unwarranted obstacles) are a necessity, as they clarify in concrete terms the obligations of the mining operation. Generic and abstract concepts do not help ASGM to meet its obligations.

### ***i. Mercury and Cyanide Regulations***

#### **Mercury**

In the last 20 years, knowledge about the use of mercury in the ASGM sector, its impacts, and ways to drastically reduce such impacts on people and the environment has increased substantially through national and international projects. That said, it is surprising how little of the knowledge about mercury use or cyanide use has become integrated effectively into regulatory measures that could prevent and control the pollution caused by these two substances, which are used in gold processing worldwide.

In the case of mercury, years of research and experience in the field working with ASGM were in part consolidated in the document, “UNIDO Technical Guidelines on Mercury Management in Artisanal and Small-Scale Gold Mining.”<sup>xvi</sup> As a start, these guidelines could be translated into regulatory measures and further guidance could be elaborated as appropriate.

#### **Cyanide**

Cyanide has been less studied than mercury in the context of ASGM and the majority of the technical knowledge has come from the use of cyanide in the large-scale mining sector. Again, it is surprising that so little of this knowledge has been incorporated into regulatory measures, not only for ASGM, but also for the mining industry in general. In the absence of common regulatory measures, the mining industry has developed a range of “best practices” which were recently consolidated in the International Cyanide Management Code.<sup>xvii</sup> The Code and the compliance system that was developed focus on large and medium-size operations and it would be a valuable initiative to identify the possibility of adapting the Code to ASGM conditions.

Regulatory measures covering environmental contamination standards for substances like mercury and cyanide in diverse environment elements (air, soil, and water) are important instruments that should be in place to allow for effective monitoring and management of mining operations. The case studies show that it is an area that deserves attention because these environmental limits are often incomplete or non-existent in the regulatory framework.

### ***ii. Mining in River Beds***

Alluvial extraction in riverbeds or any watersheds can be very destructive when it involves the use of dredges. Unfortunately, this is common practice in important ecosystems such as the Amazon region (Brazil, Guyana, Peru, Colombia) and the Chocó region of Colombia. However, the regulations do not provide clear guidelines to prevent or minimize the environmental and social impacts of these types of operations.

Regulations can be developed that directly address different aspects of the problem through conditions that can be imposed on mining titles and environmental licences.

## C. Other Relevant Requirements

### *i. Explosives*

Explosives are important technological inputs for the extraction process of minerals, especially for hard rock deposits. Unfortunately, existing regulatory frameworks do not deal with this effectively. The tendency is to forbid the use of explosives (e.g., Ghana), which, in practical terms, often means that the explosives will just be more expensive and will be used without any security measures.

It is crucial for mining regulatory frameworks to deal with the storage of explosives in a practical way – to develop guidelines that the ASGM operations can apply.

### *ii. Rehabilitation and Mine Closure*

Rehabilitation and mine closure is a relative new area for mining in general, and for ASGM in particular. As much as rehabilitation is part of the mining legal framework for most countries, obligations to return the mined area to a state that does not pose a risk to communities or the environment post-closure, are not well implemented.<sup>xviii</sup> Currently, where obligations exist for ASGM, regulations are often abstract and tend to default to the process for medium and large-scale mining, which may not be applicable or translatable.

### *iii. Community Consultation and Corporate Social Responsibility*

Community consultation, as a means of obtaining a “social licence” to operate, is a relatively new concept to the mining sector but it is an important subject at different levels. One characteristic of “social licence” is a continuing consultation process during the lifetime of the mine through an active commitment to a broader corporate social responsibility (CSR) program.

#### **Box 4. Considerations for Pollution Control**

1. Knowledge of the use of mercury and cyanide should be incorporated into regulatory guidelines applied to the ASGM context.
2. Specific mining and environmental frameworks should apply to ASGM mining in river beds to prevent and minimize the environmental impacts that today are a reality in these very important ecosystems.
3. The regulatory framework should clearly address the requirements for buying, using, and storing explosives in the context of ASGM.
4. Capacity building in explosives use and storage (including construction for storage) is very important and should be adapted to the reality of ASGM.
5. Comprehensive regulatory guidelines should be provided for consultation and mining closure based on different categories of mining titles.
6. CSR research should address the particular socio-economic situation of the sector and the relationship between this sector and the surrounding communities.

## D. Restrictions on Technology Use

Clear guidelines and regulations to safeguard worker health and safety, and to prevent or minimize environmental and social impacts of this practice typically are missing from ASGM frameworks (where these exist). In the few cases where regulations do deal with it, they may impose blanket prohibitions or restrictions. Yet, inappropriately applied blanket bans and restrictions can push artisanal and small-scale miners into non-compliance with their licences, to regions outside of the practical reach of formal monitoring and enforcement measures, or into illegal trade of toxic inputs or gold. The following bans and restrictions are the most commonly applied:

- Mining in river beds.

- Restrictions on technology use.
- Mercury and cyanide.
- Explosives.
- Export and sales restrictions.

If appropriately applied, restrictions or guidance are powerful instruments. However, to be successful, restrictions should avoid, if possible, imposing unnecessary obstacles and associated limits on economic growth, development, and competition. The focus should be on ensuring the desired environmental and social outcomes.

Incentives and disincentives for changing behaviours and practices are of interest to legislators due to the complex social, political, and technical challenges associated with controlling the ASGM sector.<sup>xix</sup> Assistance measures have been used with some success in Mongolia, where mercury use was banned in ASGM operations in 2008, accompanied by significant investment to support miners to transition away from mercury.

#### **Box 5. Considerations for Bans and Restrictions in ASGM**

1. ASGM legislation must address in detail the requirements for compliance with any ban/restriction to be applied, referencing other legislation (e.g., health, environmental), where relevant.
2. Any legal ban or restriction on the use of technology, methods, or processes should be evaluated carefully in terms of impacts of such restrictions in the sector, including the cost of monitoring and enforcement and likely effectiveness of such a ban/restriction.
3. Any ban/restriction should be accompanied by accessible alternatives in terms of the performance, cost, availability, and technical complexity of use.

## **IV. Role of Institutional Aspects in Formalization and Lessons Learned**

The institutional dimension of ASGM formalization, though fundamental, is often underestimated. Government agencies, in their role as guardians of natural resources, mining property rights, public health, and environmental quality, must ensure that mining operations do not simply high-grade deposits<sup>xx</sup> and that they abide by environmental or social requirements.

A coordinated approach between different institutions that are responsible for defining public policy for ASGM is critical because of the difficulty and complexity of this sector and the multidimensional nature of the problems and associated solutions.<sup>xxi</sup> Other elements of society also have a role to play and should be incorporated into the process. For example, miners' associations, large-scale mining representatives, and academia should be positively engaged if formalization is to be successful.

### **A. State Functions and Initiatives**

#### ***i. Parliament***

The role of Parliament or Congress in shaping the strategic vision of the public policy of the country is crucial for ASGM. Mining Commissions at the parliamentary level in countries with a mineral tradition typically play an important role in defining the legal framework and the national mining policy of the country. Where this has happened, the impact has been positive at different levels, from creating a national profile of the sector, to more concrete outcomes such as the promulgation of specific laws for ASGM. These mining commissions can also serve to monitor the implementation of the legal framework with the view of improving it, distinct from monitoring for enforcement purposes.

## ***ii. Ministries of Mining and Environment or Corresponding Executive Mining Institutions***

Fragmentation in regulatory regimes is a classic challenge where the sector or activity being regulated is a crosscutting one. Experiences in Latin America, Africa, and Asia have shown ASGM formalization to have implications for mining codes, environmental legislation, labour, and health and security laws, chemicals and waste management, gender, access to information / “right-to-know” legislation, and public budgets.<sup>xxii</sup>

Clear allocation of mandates between public bodies is key to efficiency and cost-effectiveness in governance.<sup>xxiii</sup> Clarity of mandates at the policy level ultimately comes from a shared perspective on ASGM and agreement on how to manage risks and opportunities in this sector held by all ministries involved. Giving adequate powers to responsible authorities improves their ability to fulfil their mandate.

The coordination and integration of environmental management with public mining management is crucial but in reality is uneven. In some cases, environment and mining ministries have fundamentally different – even contradictory – views of ASGM in terms of the role the sector plays in the economy and subsequent directions of public policy. Other government institutions with roles to play in ASGM include ministries of health, finance, and labour.

From an institutional and program delivery perspective, the issue of government decentralization is a relevant aspect for ASGM.<sup>xxiv</sup> Proximity of government services to ASGM areas of activity can improve understanding of the sector and foster a more realistic approach towards it.

Enforcement as a tool for improving policies and programs and identifying those who are less compliant is essential and its absence is one of the main causes of high levels of illegality in the ASGM sector. Nevertheless, non-enforcement by itself does not explain the problem adequately. If more emphasis were put solely on penalizing illegal activities, the main result likely would be to generate more conflicts between ASGM and the government.

As a tool for ASGM improvements, it is possible to distinguish two different roles in this area. One is traditional enforcement and the other is a process of monitoring the implementation of the regulatory framework and policy measures. The second role, mentioned before, may be most effective when it is used as a feedback mechanism (or system) for improving regulatory implementation, distinct from enforcement and with participation of a multi-stakeholder reference group (for example, at the Parliamentary level).

The general lack of capacity of government mining and environmental institutions, aggravated by the heavy public management burden required by the ASGM sector, affects the central administration as much as the provincial and local levels. Furthermore, government agencies are usually not prepared to deal with the specificities of the ASGM sector at policy, management, and enforcement levels. Finally, the ASGM sector demands a level of support in several areas (from finance to health and environment) in which governments typically have limited capacity.

## **B. Role and Major Initiatives of Miners’ Organizations**

### ***i. Clarification of Concepts***

The role and function of miners’ organizations is an area in which there are many misunderstandings. First there is confusion between associations or organizations established for defending or promoting the interests of the sector and those associations or organizations that are focused on actual mineral extraction, processing, and production. Another misconception related to the production-focused organizations is the belief that the ASGM miner is an individual worker without any connection to the individuals around him on the mining site.

ASGM miners are indeed organized for the purposes of production and within that organization there are different socioeconomic relationships. Some of these are based on exploitation depending on the nature of the political and legal framework, which may ignore, enable, or support these relations inside or outside of the ASGM sector. The legal framework and other programs, such as credit and certification, have the potential to change these structures and relations and to create the conditions for establishing healthy and fair economic relations between the different actors throughout the gold chain of custody.

**ii. Syndicates and Other Miners’ Organizations**

From the case studies, it is possible to identify that, independent of the state of legalization or formalization of the sector, the miners organize themselves to defend their own interests.

In terms of understanding and engaging with private mining organizations, whose mission is advocating for the interests of the sector, it is important to acknowledge that the sector is complex and there are significantly different issues and interests among different categories of ASGM.

The participation of miners’ organizations in the elaboration of the regulatory frameworks and national ASGM policies or programs is essential in terms of developing successful and realistic public policy instruments. Nevertheless, it is important that all categories are represented along with the different strata in each group, where they exist.

**C. Role of the Academy, Research and Technology Centres**

**i. Universities and Research Centres**

In a few countries, dedicated capacity building centres were created to support the ASGM sector mainly to deal with mercury issues. Exceptionally, a more integrated approach was taken. These kinds of centres are fundamental institutions that can have an important role in supporting miners in different areas of business development services and also in promoting capacity building for all relevant stakeholders.

Marginalization and exclusion are phenomena that result, in part, from the lack of capacity to deal with a situation and fear that originates from a lack of understanding of the issues and the options and solutions for change. These components clearly are present in many dealings with the ASGM sector. The best way to address this situation is through information, knowledge, and skills development

**Box 6. Considerations for Institutional Roles and Responsibilities in Formalizing ASGM**

1. A parliamentary mining commission on ASGM public policy is potentially a powerful mechanism to align the various ministries on how ASGM is viewed and regulated at the national level. It can also raise awareness of the impacts, positive and negative, of this activity.
2. Decentralization and capacity of government institutions needs to be addressed with a clear strategy suitable to the national context.
3. The results of implementation of the public policy should be monitored. A multi-stakeholder forum at the parliamentary level is one option to achieve this.
4. Miners’ associations, large-scale mining representatives, and academia should be positively engaged if formalization is to be successful.

**V. Role of Economic Instruments in Formalization and Lessons Learned**

Due to the complex social, political, and technical challenges associated with controlling the ASGM sector, it is important for regulators to combine command and control measures (CAC) with

economic instruments that can generate economic incentives for changing behaviours and practices.<sup>xxv</sup>

A general but key characteristic of ASGM that is important to take into consideration when applying economic instruments for behaviour change is its vulnerability to any increase in costs, a reality that particularly affects the poorest. The other side of the coin is that small economic measures can have a huge positive impact on these mining operations and it is possible, therefore, to transform them without great cost to the government.

## **A. Fiscal Systems and their Role in the Gold Production Chain**

### ***i. Taxation Regimes, Royalties, and Fees***

All formal mining categories should pay taxes, even if they are nominal. Two tendencies have emerged. In some cases, ASGM is treated as another economic sector with a few minor exceptions. In other cases, countries have distinguished the ASGM sector from other economic sectors and have used regimes similar to taxation of independent workers. In this case, there is a sense that the regular taxation for economic sectors is too complex for the ASGM sector. (It is important to note however is that taxation of companies/legal business entities is different than taxation of workers.)

The difficulties related to taxation of small business are not unique to the mining sector. The economic viability of these businesses can hinge on measures that respect their economic reality and simplify their requirements for compliance.

Royalties for the ASGM sector, where they are used, vary from 0.2% to 5%. Artisanal mining tends to be exempted or have its royalties reduced to a symbolic percentage (e.g., 0.2%). Another important discussion relates to the calculation of the royalty. The most common is value-based, which best reflects the nature of the royalty concept and more efficiently guarantees the payment of the royalty (prevents evasion).

A mining licence fee is one of many administrative fees that the mining production organization incurs with the legalization of a mining project. The amounts charged are inconsistent, running from US\$ 50 - 350 annually for small-scale mining. The general tendency is to have lower fees for artisanal than for small-scale mining.

#### **Box 7. Considerations for Fiscal Regime Design**

1. One particular challenge worth highlighting is that illegal trade becomes a more attractive prospect as the cost of compliance goes up for stakeholders.
2. One crucial issue is the need for regional harmonization, specifically related with fiscal regimes, including taxes, royalties and fees among adjacent countries. These measures are some of the most important and effective regulatory tools to prevent smuggling.

### ***i. Selling Requirements and Taxes***

The most common selling requirements in the mining sector are:

- The mining licensee has the right to sell the minerals extracted and processed without an additional licence, including for export. In the ASGM sector this approach is not generally followed and very often there is an additional licence and other administrative requirements in order to sell or export.
- When a commercial seller does not have a mining licence, such as in the case of a dealer, another form of licence or registration should be required to incorporate them into the system.

It is clear that this is an area that deserves more attention, including studies to address the ASGM and related chain of custody issues. However, it is possible to conclude that commercialization licences as an instrument of control to identify the agents that commercialize gold are not an efficient mechanism to prevent smuggling and that public policy may be incentivizing ASGM mining operations to use as few intermediaries as possible.

### ***ii. Tax Incentives to Add Value***

The objective of promoting value-added activities in mineral production (e.g., refining or producing jewellery) is a longstanding one in the mineral policies of several developing countries.<sup>xxvi</sup> The countries that have a greater chance of achieving this objective are the countries with national markets for the mineral product in question. This does not mean that countries without significant national markets for the specific mineral product (gold in this case) cannot achieve this objective, but it does mean that a clearer public policy (with active involvement and participation of the private sector) should be put in place to do so.<sup>xxvii</sup>

In principle, because of the nature of the royalty concept, it should not apply to the value-added phase, however several regulations do include the royalty in the last phase of processing or refining, which can be a substantial disincentive to further value-added activities.

## **B. The Role of Credit Mechanisms**

While international and national budgetary sources of public funding are important, much less is known about the possibilities for private sector financing and mechanisms for channelling resources to the ASGM sector for the purpose of assisting compliance.

Cost sharing between public and private sectors is required to support one-time financing needs for legislation development and early phase activities in formalization processes, including strategic planning, institution and relationship building, and gathering baseline information. As such, the key thrust for early phase financing in this discussion is: a) increased national budget allocations for ASGM activities; b) diverting some or increasing revenues from formal gold mining royalties and tax receipts; and, c) encouraging Large-scale – Small-scale partnerships as an element of private sector contributions.

Longer term financing for miners themselves is key for continuation of formalization processes; and indeed access to credit and financial gain should be one important outcome of formalization in this sector. The most likely sources of finance for miners identified to date include private investment, local credit mechanisms (e.g., microfinance schemes) and market initiatives that see a “sustainability premium” benefiting miners who produce gold in verifiably ethical processes.

## **C. Ethical Market Initiatives and Brief Analysis of the Current Major Initiatives**

The global jewellery industry has become the focus of consumer concern that is leading to market demand for responsibly sourced products.

### ***i. Overview of the Initiatives***

Mining-specific ethical initiatives that directly or indirectly involve the ASGM sector include the following:

- Fairtrade and Fairmined Gold
- Initiative for Responsible Mining Assurance (IRMA)
- The Responsible Jewellery Council (RJC)
- The Dodd-Frank Act and Certified Trading Chains (CTC) in Africa’s Great Lakes Region<sup>xxviii</sup>

These initiatives show that the ASGM sector is likely to respond well when it has an opportunity and that it is possible to work in sustainable initiatives when they are appropriately designed to address the particular needs and challenges of the sector. It must also be noted however that the majority of these schemes are new and as yet unproved and most of them are developed for, or attend to, the logic and characteristics of large-scale mining. At this stage of the development of these issues, it is important to consider opportunities to build on existing work rather than to invest in duplication.

### ***ii. Lessons Learned from the Kimberly Certification Process***

The Kimberly certification scheme was initiated in 2003 based on a UN General Assembly resolution,<sup>xxix</sup> that defines: "...the need to give urgent and careful consideration to devising effective and pragmatic measures to address the problem of conflict diamonds," the elements of which would include the following principles and mechanisms.

Given the problems it encountered and generated, it is difficult to accept that the Kimberly system offers an option for other minerals when it appears that the implementation of the system has generated so many problems. It is important, however, to say that the Kimberly process was a pioneer ethical initiative and therefore it is natural that it encountered challenges in its implementation. It also appears that some of the problems may be fixable but others, such as the subject of internal controls, may be structural. The entire system was built around the idea of internal control of the trade of diamonds, which in fact does not exist and due to a wide range of factors is very difficult to implement using command and control measures (e.g., provision of tags/certificates or the effective control of the borders of participating countries).

## **VI. Concluding Remarks**

Formalization is widely considered as one policy response required for legitimate outreach on the social and environmental ills generated by this activity; and, where desired, to build this sector into a productive aspect of local and national economies.

A new approach to the sector and to formalization is examined: to consider ASGM as an economic sector that is a unique component of the national mining industry. The idea that ASGM is a subsistence sector that does not follow economic logic has not proved to be helpful and has, in practical terms, inhibited the sector and generated ambiguity about how public policy should approach it.

The research and analysis undertaken in this report "unpacks" critical public policy elements and presents relevant lessons regarding policy implementation for ASGM based on experiences with formalization in Latin America, Africa, and Asia.

The key messages are as follows:

- If formalization is the key factor enabling outreach on mercury management and other social concerns in ASGM communities, the cost savings resulting from the prevention of negative health and environmental consequences can be counted as a benefit of this policy action.
- ASGM formalization is a multidimensional and multi-actor process that requires the integration of policies and strong coordination between institutions. Knowledge exchange among different actors (including the miners, the government, the market, civil society, and the academy) will contribute to implementable solutions in this complex sector. Generating, disseminating, and institutionalizing this knowledge is a clear and important challenge in which all stakeholders play a role.
- Successful formalization strategies tend to:

- Incorporate approaches that are simple to implement.
- Foster positive economic conditions for miners and local communities.
- In terms of applying policy instruments to ASGM:
  - Official classification of ASGM activities allows for the simplification of legal and administrative requirements without compromising environmental and social standards. Distinct categories aid in defining the corresponding mining and environmental licences with particular tenure and environmental and fiscal rights and obligations.
  - Mining titles are the main policy instrument used to control formal mining activity. These titles need to be uniquely designed for ASGM.
  - Environmental licences and plans for mine closure and rehabilitation are the necessary preconditions for any mining activity, bearing in mind the need for simplified approaches to account for varying capabilities.
  - Blanket bans and restrictions can push artisanal and small-scale miners into non-compliance with their licences, to regions outside of the practical reach of formal monitoring and enforcement measures, or into illegal trade of toxic inputs or gold.
- In terms of applying economic instruments to ASGM:
  - Cost sharing between public and private sectors to finance the development of legislation and early phase implementation initiatives is required to support one-time financing needs for early phase activities in formalization processes, including strategic planning, institution and relationship-building, and gathering baseline information.
  - Early-phase financing is most likely sourced from public budgets at the national level, as well as private partnerships between large-scale and small-scale entities in the sector.
  - Longer term financing for miners themselves is key for continuation of formalization processes; and indeed access to credit and financial gain should be one important outcome of formalization in this sector.

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<sup>xiii</sup> Part of this and the following section is drawn from the case studies, literature cited, and also from the guidelines developed by ARM. To access the guidelines please see:

[http://www.communitymining.org/attachments/059\\_ARM\\_Series5\\_Legalisation\\_guide\\_ASM.pdf](http://www.communitymining.org/attachments/059_ARM_Series5_Legalisation_guide_ASM.pdf)

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<sup>xxvii</sup> Please refer to previous reference.

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