

IGF MINING POLICY FRAMEWORK ASSESSMENT

Suriname

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IGF

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IGF Mining Policy Framework Assessment: Suriname

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ABOUT THE MPF ASSESSMENT SERIES OF REPORTS

With support from the Government of Canada, the Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development (IGF) is working with a voluntary selection of its member states to help them operationalize practices consistent with the IGF's Mining Policy Framework (MPF). The first assessments were carried out in 2014 in the Dominican Republic, Madagascar and Uganda. Based on the success of these initial evaluations, the IGF will conduct three or four assessments each year, in response to member requests.

The MPF assessment process itself is made up of two main steps. First, the MPF assessment team evaluates relevant national, regional and international laws, policies, conventions and administrative frameworks for mining and minerals development and management relative to the six themes of the MPF: the Legal and Policy Environment, Financial Benefit Optimization, Socioeconomic Benefit Optimization, Environmental Management, the Post-Mining Transition, and Artisanal and Small-scale Mining (ASM). This work is done both through desk- and field-based research involving diverse stakeholders. The assessment identifies key strengths, weaknesses and gaps in the country's mining laws and policies, as compared to the international best practices outlined in the MPF, which helps measure the readiness of the member state to implement the MPF through its existing government measures. Building on the outcomes of this assessment process, the second phase of the project involves working with the participating state to develop a capacity-building and technical support program that addresses key weaknesses and gaps, in the hopes that these strengthened capacities and increased understandings can enhance national legislation and policies, thereby optimizing the contribution of the mining sector to sustainable development.

This report presents the assessment for Suriname, with a view toward the following: helping the government target its efforts in implementing the MPF; informing capacity-building efforts; and allowing for monitoring of progress over time. The authors would like to thank their colleagues from the Government of Suriname, particularly those at the Ministry of Natural Resources, for their help and support with this project. A special thanks to Glenn Gemerts, Linda Linger, Diana Vyent and Valerie Refos-Lalji for their invaluable help and support in conducting this assessment.



EXECUTIVE SUMMARY

This report presents an assessment of Suriname's readiness and capacity to implement the Mining Policy Framework (MPF) of the Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development (IGF). Staff from the IGF Secretariat conducted the assessment between August and November 2016; the process involved an extensive desk-based review of key domestic and international laws and policies, as well as a 5-day field visit to the country, during which the project team met with a broad array of stakeholders from government, civil society, international organizations and the private sector. The assessment phase of this project concludes with this report.

The assessment team identified the following **key strengths** in Suriname's mining laws and policies:

- The Constitution (1987), Mining Decree (1986), and Environmental Assessment Guidelines Volume II – Mining (2005) are consistent with the Mining Policy Framework and give the Minister(s) authority to maximize the financial and socioeconomic benefits of mining and protect worker safety, community health, the public, and ecosystems and nature from the impacts of mining, and consider small-scale mining as an integral part of the mining sector.
- The government is currently undertaking a revision of its Mining Code. A draft Mining Act was presented to parliament in 2004 but not adopted; the government established a multistakeholder commission to revise this draft in June 2016, and the new draft will be presented in 2017.
- NIMOS, an advisory body under the office of the President, is accepted as a relevant and experienced institution, and—despite its lack of enforcement power—is sought out by stakeholders and seems to administer the Environmental Assessment Guidelines Volume II – Mining (2005) effectively.
- The OGS, a commission installed by the President and housed within the Ministry of Natural Resources, is charged with overseeing the small-scale gold mining sector, and although its scope seems narrow, it effectively manages tensions among small-scale miners and between large and small-scale miners, an area of high conflict risk.

Although there were **key gaps** in the MPF thematic areas of financial benefit optimization, socioeconomic benefit optimization, and environmental management, the government can readily address many of them by requiring the universal application of the environmental assessment guidelines for mining. This will require that the Ministry strengthen and better resource its mining agencies and that the government establish an environmental ministry.

In addition to the above, and more specifically, Suriname should focus on the following priorities to improve its readiness to implement the Mining Policy Framework:

- Adopt the revised Mining Decree and increase resources flowing to mining authorities.
- Establish clear mine closure requirements, including for planning, financial assurance, and a state-level multistakeholder approach to abandoned mines.
- Better formalize the ASM sector, especially regarding environmental and health protection and to leverage its potential for positive economic impact.

**TABLE 1. KEY STRENGTHS AND GAPS OF EACH PILLAR OF THE MPF**

MPF THEME	LEVEL OF PROGRESS TOWARD MPF STANDARDS	STRENGTHS	GAPS
Legal and policy environment	Low	<ul style="list-style-type: none"> • A multistakeholder commission is in place to update key mining legislation in a participative manner. • Some areas of the country have good coverage of geological data. • Mining permits are required, have strict reporting requirements, and cover most of the mining life cycle. • Environmental assessment guidelines have been developed for the mining sector and require consultation, impact identification and mitigation, and environmental management and closure plans. • Baseline descriptions of key environmental and social aspects are required in the EIA process. • Efforts underway to consolidate and improve efficiency in mining governance under the Minerals Institute. 	<ul style="list-style-type: none"> • Mining legislation is out of date, does not reflect current knowledge or best practice. • No mining policy is in place to guide development of the sector. • Environmental legislation is minimal. • Geological data and information are out of date and/or inaccessible. • Significant gaps exist on mine closure and rehabilitation in the permit application process. • Permit applications do not require the identification of opportunities to create sustainable benefits for communities or the country over the life of the mine. • Permitting process seen by stakeholders as opaque, unstable, with too much discretionary power to senior officials.
Financial benefit optimization	Low	<ul style="list-style-type: none"> • Revenues are generated through a mix of taxes, royalties, fees and dividends. • Multistakeholder committees are established for the negotiation of mining agreements, and use a model mine agreement as the basis of negotiations. • Corporate income taxes are similar to those applied to non-mining entities in the same jurisdiction. • The government is committed to joining the EITI, and is working toward improved transparency. 	<ul style="list-style-type: none"> • The equal legal standing of the Mining Decree and the mineral agreements creates parallel systems of governance and taxation that complicate revenue generation and accounting. • Minimal tax and royalty collection in the informal ASM sector results in significant lost revenues for the government. • Resources and capacities to administer the tax system are limited. • Existing mineral agreements are not explicitly tied to national development and policy objectives. • Limited transparency in the management and distribution of mining revenues.



MPF THEME	LEVEL OF PROGRESS TOWARD MPF STANDARDS	STRENGTHS	GAPS
Socioeconomic benefit optimization	Low	<ul style="list-style-type: none"> • Mining is a central pillar of the national economy, and so is integrated into local, regional and national fabrics. • Indigenous rights are included in mineral agreements. • Provisions in the Mining Decree and Mineral Agreements direct operators to give preference to the employment of Surinamese citizens and residents, and to the procurement of local goods and services. • There are laws for the protection and enforcement of occupational health and safety standards. • Conflict resolution and mediation is part of OGS' core mandate. 	<ul style="list-style-type: none"> • Lack of national legislation on indigenous and tribal rights allows for tensions to emerge among indigenous communities and mine operators. • A limited amount of socioeconomic planning is required in the permitting process. • Community consultations are not required in the Mining Decree. • No requirements in the Mining Decree that relevant plans (environmental management, closure, emergency preparedness) be periodically revised to reflect the changing context. • No strong links for the mining sector to either Suriname's broader education or health objectives.
Environmental management	Low	<ul style="list-style-type: none"> • Protection of the environment is enshrined in the Constitution and in the Mining Decree. • EIA guidelines on mining are comprehensive and proactive, and cover all aspects of the mining life cycle. • It is prohibited to carry out mining activities in the country's protected areas. 	<ul style="list-style-type: none"> • There is limited environmental legislation and no national environmental authority. • Resources and capacities to monitor and inspect environmental management (water, waste, biodiversity, soil, air) is limited. • There is no legislation—national or international—governing mercury use. • Mining impacts in protected areas are widespread due to a lack of enforcement and resources. • Emergency preparedness plan are not required by law.
Post-mining transition	Low	<ul style="list-style-type: none"> • Mine rehabilitation mentioned in the Mining Decree. • EIA guidelines also cover mine closure and rehabilitation, and mine closure plans are required as part of the permit application process. 	<ul style="list-style-type: none"> • No regulations or directions for the Minister to ensure that necessary steps are taken to respect public safety, rehabilitate the site and protect the environment. • Guidance on closure in the EIA guidelines is not consistently applied or applicable to existing projects. • No requirements for the establishment of financial assurances to cover the costs of closure. • No legislation or policy on how the government can take a leading role in addressing orphaned or abandoned mines. • Limited capacities within the government to ensure that closure plans are of a high standard and updated on a regular basis, or requirements that they be prepared and costed by independent external experts.



MPF THEME	LEVEL OF PROGRESS TOWARD MPF STANDARDS	STRENGTHS	GAPS
Artisanal and small-scale mining	Low	<ul style="list-style-type: none"> • There are institutions in place designed to formalize the ASM sector (permits, OGS). • Rights of children are protected in the Constitution and a number of international conventions to which Suriname is a party. • Government is responsible for designating areas for ASM gold mining. • Programs are underway to demonstrate how gold can be processed without mercury. 	<ul style="list-style-type: none"> • ASM sector remains largely informal, a major impediment to environmental and social protection and a source of significant lost revenues. • ASM is not addressed in the Mining Decree, and legislative action is slow. • There is no national legislation on mercury use, and Suriname has not yet ratified the Minamata Convention. • Migration of ASM miners and their production across the porous border remains a problem. • Training, education and awareness-raising campaigns on understanding and reducing the negative social and environmental impacts of ASM have been largely ineffective. • No mechanisms in place to improve the savings of artisanal miners. • No efforts in place to encourage initiatives for fair trade or conflict-free certification of minerals.



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ACRONYMS

BIS	Bauxite Institute Suriname
GMD	Geologisch Mijnbouwkundige Dienst
IGF	Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development
IISD	International Institute for Sustainable Development
MNR	Ministry of Natural Resources
NIMOS	Nationaal Instituut voor Milieu en Ontwikkeling in Suriname (National Institute for Environment and Development in Suriname)
OGS	Ordering Goud Sector



INTRODUCTION

Mining has historically played a central role in Suriname's economy. Mineral exploitation—first of bauxite, then gold—has underpinned the economy since its independence.

This assessment report first presents Suriname's development, mining and legal contexts. It then highlights the key strengths and gaps in Suriname's mining policies and laws, across all six of the MPF's thematic areas.

The IGF Secretariat carried out the assessment in 2016 using the following methodology:

- Desk-based research, including an extensive review of the laws, policies, regulations and agreements that govern the national mining sector, as well as relevant literature on the sector: August–October 2016.
- Visit to Paramaribo and consultations with relevant stakeholders from government, civil society and the private sector: September 2016.
- Site visits to Grassalco Maripaston and IAMGOLD Rosebel: September 2016.
- Drafting of the assessment report: October–November 2016.
- Completion of final assessment report: April 2017.



SURINAME: THE NATIONAL CONTEXT

The Republic of Suriname is South America's smallest country. It lies along the continent's northern, Atlantic coast, bordered by Guyana to the west, Brazil to the south and French Guiana to the east. Most of the country's citizens live along the northern coast and around the capital, Paramaribo, while the sparsely populated interior remains dominated by rainforest.

Despite recent economic challenges (see Table 2), Suriname's population remains comparatively well off. According to the UN, the country is categorized as a nation of High Human Development, with a ranking of 103 out of 188 countries in the most recent Human Development Index (United Nations Development Programme [UNDP], 2015). This puts Suriname at a similar level of development as the Dominican Republic and Belize. Life expectancy is 71.1 years, which is below the Latin America and the Caribbean (LAC) average (75 years). Women are closer to this regional average, living substantially longer than men (74.4 years, versus 68 years for men) (UNDP, 2015). Children spend on average 7.7 years in school, with boys and girls spending roughly the same amount of time in the education system. This is nearly on par with the regional average of 8.2 years (UNDP, 2015). Incomes in Suriname are comparatively high, particularly for men: while the regional average for per capita Gross National Income is USD 14,242, in Suriname the average is USD 15,617. This average hides a substantial degree of gender inequality in GNI per capita in Suriname, where women on average can expect to make less than half of what men earn (USD 10,241 versus USD 20,970) (UNDP, 2015). Dramatic reductions in the value of the Surinamese dollar in 2016 saw real income in the country decrease substantially. Development progress has stalled in recent years, particularly in education (see Table 2): mean years of schooling have not increased since 2010, through there have been small improvements in life expectancy and income (UNDP, 2015).

TABLE 2. UNDP HUMAN DEVELOPMENT INDEX TRENDS, 1990-2014

	1990	2000	2010	2011	2012	2013	2014
HDI Score	NA	NA	0.707	0.709	0.711	0.713	0.714
Life expectancy at birth	67.4	67.9	70.3	70.6	70.8	71.0	71.1
Mean years of schooling	Data not available	Data not available	7.7	7.7	7.7	7.7	7.7
GNI per capita	10,546	10,042	14,620	14,672	14,978	15,274	15,617

Source : UNDP, 2015

Suriname's population is just 580,000, with most concentrated along the country's northern coastline. It is an ethnically and religiously diverse society, and largely urban, with 71 per cent of the population living in Suriname's cities and 40 per cent found in Paramaribo alone (UNDP, 2015). The population is growing: by 2030, the population is expected to grow to 670,000 (UNDP, 2015). The median age (29) matches the region's. 7.6 per cent of the population suffers from multidimensional poverty, as measured by the UN (UNDP, 2015).

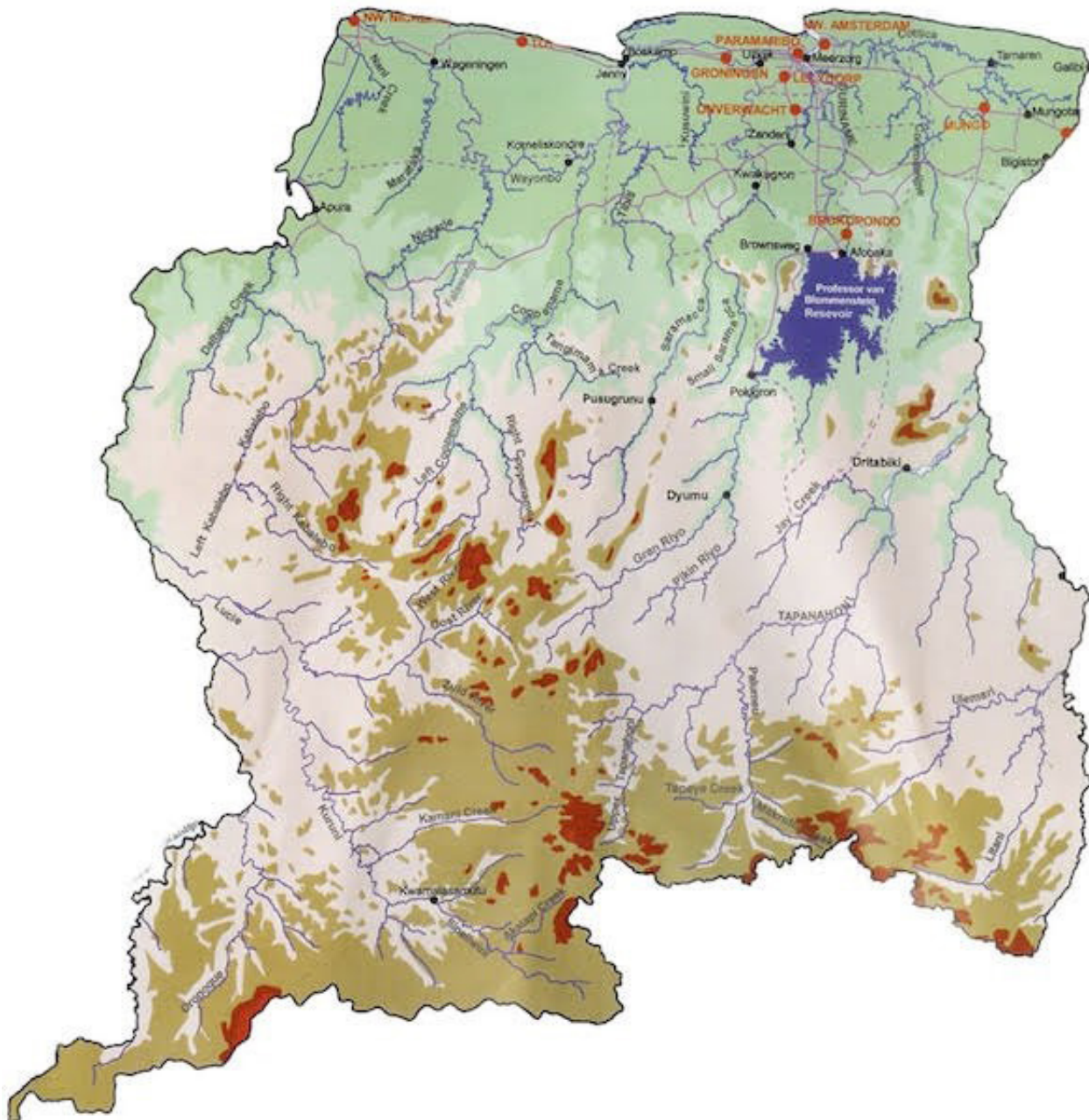


FIGURE 1. MAP OF SURINAME

Source: Government of Suriname



ECONOMIC CONTEXT

The Surinamese economy is dominated by natural resources: oil, gold and bauxite account for 90 per cent of exports, and 30 per cent of GDP. Gold replaced bauxite as the primary export commodity in 2008. This mineral dependence makes the national economy—and government revenues—highly vulnerable to commodity price volatility. Most of the national workforce is engaged in the services sector (64.3 per cent), whereas—unlike many other developing countries—the agricultural sector is a relatively small part of the economy, accounting for only 8 per cent of the labour market. In fact, agricultural land covers only 0.5 per cent of Suriname’s total land area (World Bank, 2016). Key agricultural products include rice, bananas, palm kernels, coconuts, plantains, peanuts, fish and livestock (CIA, 2016). Beyond extractives, other industries include lumber, food processing, and fishing. Tourism is limited.

Suriname’s gross domestic product was USD 4.877 billion in 2015, growing at an annual rate of 1.5 per cent (World Bank, 2016). In 2016, a significant devaluation in the national currency precipitated by the commodity price slump greatly increased the rate of inflation and had a profound, negative impact on individual incomes. Suriname ranked 88th of 168 countries on Transparency International’s Perceptions of Corruption Index in 2015, putting it on par with Peru, Albania, Algeria, Egypt and Indonesia (Transparency International, 2015).

ENVIRONMENTAL CONTEXT

Suriname is the most heavily forested country on the planet, with 95 per cent of the country covered in trees (Wilson, 2002). Most of the population lives along the Atlantic coast, which is dominated by dense mangrove forests (UNDP, 2015). Moving south into the interior, the narrow coastal plain quickly gives way to extensive, sparsely populated rainforests that harbour a great diversity of flora and fauna. The climate is tropical, and is moderated by trade winds (CIA, 2016). Nearly 15 per cent of the country’s land is formally protected, which is less than the average for Latin America and the Caribbean, but this does include the Central Suriname Nature Reserve, a UNESCO World Heritage Site that covers four million acres and is one of the largest and most pristine tropical forest in the world (World Bank, 2015; Wilson, 2002). The country’s key natural resources include timber, hydropower, bauxite, oil, gold, fish, and small amounts of nickel, copper, platinum, iron ore and diamonds (CIA, 2016). Informal small-scale mining, particularly in the interior, is a key environmental challenge; it is leading to deforestation, mercury contamination and the pollution of inland waterways.



SURINAME: THE MINING CONTEXT

Mining is central to the national economy: while proportions have changed with the decline in bauxite mining in Suriname, in 2007 the country's main exports were alumina (49.2 per cent), gold (34.6 per cent) and oil (4.3 per cent) (Central Bank of Suriname [CBS], 2014). These proportions have since changed with reduced bauxite mining and decreases in the price of gold: in 2014, gold accounted for 54.5 per cent of exports despite a decrease in the value of gold exports, while alumina accounted for 16.5 per cent of exports and crude oil 15.2 per cent (CBS, 2014). This makes the Surinamese economy highly vulnerable to commodity price volatility.

Bauxite has historically played a central role in Suriname's mining sector. The major bauxite mine has been producing since 1916; its output was most recently mined and refined into alumina by a joint venture between the Suriname Aluminum Company (Suralco) and Alcoa Minerals of Suriname, which were both subsidiaries of Alcoa World Alumina, itself a joint venture of Alcoa Inc. and Alumina Ltd of Australia (Mobbs, 2013). BHP Billiton has also been involved in domestic production, eventually brought in as a partner for Suralco/Alcoa (Bauxite Institute Suriname [BIS], 2009). This major operation has since closed, representing a significant economic blow to the country in terms of jobs and revenues. Many of the country's large bauxite deposits had—by 2012—been mined out; the government is currently evaluating opportunities for relaunching and expanding bauxite production (Mobbs, 2013). Reviving the bauxite sector will require significant investments in infrastructure to reach new, remote deposits, while there are also significant social and environmental liabilities from the sector that must be addressed. Assuming control of the sector in the absence of an international investor is seen as risky, given the required investment and current pricing on international markets.

The country's largest gold mine is Rosebel, which is operated by IAMGOLD, a Canadian mining company. The open pit mine is located in Brokopondo district in the northeast of the country, within part of a greenstone belt that lies about 85 kilometres from the capital, north of the Brokopondo reservoir. Mining has been carried out at eight open pits on the concession to date (IAMGOLD, 2016). Golden Star—also a Canadian company—conducted the initial exploration of the deposit, first under a 1992 exploration agreement and then under a mineral agreement signed in 1994 with Grassalco and the Surinamese government. Later that year, Cambior (another Canadian company) entered into a joint venture with Golden Star whereby they obtained a 50 per cent stake in the project. The environmental impact statement was submitted to the government in 1997, and in 2001, Cambior acquired Golden Star's remaining 50 per cent stake in the Rosebel mine. Commercial production at the site began in 2004, and in 2006, IAMGOLD acquired the mine as part of its acquisition of Cambior (Mining Life, 2014). To date, the mine has produced just over 3 million ounces of gold in the first 11 years of production (IAMGOLD, 2016). 2016 production was expected to be in the range of 285,000 to 295,000 ounces. In addition to gold, Grassalco (the state mining company) also converts



some of the clean waste rock generated from IAMGOLD's mining operations into construction materials at a processing facility adjacent to the mine, mainly for export to the Caribbean region.

The second major gold project in Suriname is the Merian Gold project, which is owned and operated by Surgold, a limited liability company in turn owned by Newmont, an American mining company based in Colorado. The deposit is in the east of the country. The project started in 2004, and construction began in 2014; production was slated to begin in late 2016. Newmont expects annual gold production to be 400,000 to 500,000 ounces (Newmont, 2016).

Artisanal and small-scale gold mining is extensive in Suriname, particularly in the interior of the country: it is responsible for 60 per cent of all Surinamese gold production and employs an estimated 40,000 workers (see the section below on Pillar 6 of the MPF assessment).



SURINAME: KEY MINING LAWS AND POLICIES

The Republic of Suriname gained its independence from the Netherlands in 1975, and inherited a system of civil law similar to that used by the Dutch. The current Head of State is President Desiré Delano Bouterse, a former military sergeant who ruled the country from 1980 to 1987 and was most recently elected President in 2010, and re-elected in 2015. There are no term limits for presidents in Suriname. A Vice President and a Council of Ministers support the President; there are also district and local councils.

KEY INSTITUTIONS

Mining falls under the Ministry of Natural Resources, and within the Ministry extractives activities are managed by the Geologisch Mijnbouwkundige Dienst (GMD), or Geological Mining Service. GMD is responsible for managing concessions, generating and distributing geological information, and conducting surveys. Other key institutions for Suriname's extractives sector include the Ordening Goudsector (OGS, the Planning Commission for the Gold Sector), which regulates the gold sector; Staatsolie, the state oil and gas company; and the Bauxite Institute Suriname (BIS), which governs the country's bauxite sector. The OGS was established in 2011 to register small-scale miners, the location of mining operations and relevant mining equipment in an effort to restore government authority over the sector, improve its environmental performance and recover tax income (Mobbs, 2013). The Nationaal Instituut voor Milieu en Ontwikkeling in Suriname (NIMOS, National Institute for Environment and Development in Suriname) is an advisory institution within the office of the President responsible for environmental monitoring and enforcement.

Grassalco (short for Grasshopper Aluminum Company) is Suriname's state-owned mining company, which falls under the aegis of the Ministry of Natural Resources. Contributing to Suriname's sustainable development is a core part of the company's mission and vision (Grassalco, 2016). The original aim of the company upon its establishment in 1971 was to enter into joint ventures with foreign companies to exploit bauxite reserves in the west of the country; Grassalco has since expanded to cover exploration and exploitation of other minerals and ores, including gold. The company is one of the parties to the mineral agreement governing Rosebel, as it held the original rights to the concession, and it receives a significant portion of its operating budget from royalties derived from the project. The company owns several other mineral concessions (Lely Hills for gold, for example) that will impact its involvement in future exploration and exploitation projects. In 2014, Grassalco began processing tailings at the Maripaston site (formerly an informal small-scale mine site) in an attempt to show operators that gold can be extracted without using mercury.



DOMESTIC LAW AND POLICY

THE CONSTITUTION OF THE REPUBLIC OF SURINAME (1987)

Suriname's Constitution does not contain any specific language pertaining to the mining sector; however, it has many provisions that relate to mining and its governance. The Constitution proclaims that natural riches and resources are the property of the nation, and the state has the right to take possession of these natural resources to use them for the benefit of Suriname's economic, social and cultural development. The state must also create and improve the necessary conditions to protect nature and preserve the ecological balance. All workers have the right to safe and healthy working conditions (Article 28), children have the right to protection without any form of discrimination (Article 35), and everyone has a right to health (Article 36). Finally, Article 42 states that the law shall guarantee that the method in which trade and industry are conducted shall not be contrary to national objectives and the public interest, notably public order, health, morality and state security.

DECREE E-58 OF MAY 8, 1986 CONTAINING GENERAL RULES FOR EXPLORATION AND EXPLOITATION OF MINERALS (THE MINING DECREE)

The Mining Decree (1986) governs Suriname's mining sector. Efforts have been made in the past to update this legislation: a draft was submitted to parliament in 2004, but not adopted. In June 2016, the government established the Commission for the Amendment of the Mining Law, which is mandated to review and update the 2004 draft for submission to parliament in 2017. The multistakeholder commission is made up of representatives from government, the private sector and civil society.

The Mining Decree reiterates that the minerals in and on the ground in Suriname are to be considered property of the state, and are separated from ownership of the land. The Decree states that mining should be carried out according to modern international techniques and methods, and should be aligned with the norms tacitly assumed in the mining industry. Worker health and safety (and public health more generally) must be respected and protected by those operating in the industry, and they must follow norms for the protection of ecological systems. Mining companies must give priority to local employment and local purchasing of goods and services, when these can be obtained on comparable price, type, variety and quantity.

Five types of mining permits, or rights, can be obtained from the Ministry: reconnaissance, exploration, exploitation, small-scale mining, and quarrying building materials. Permits can be obtained for bauxite, radioactive minerals, hydrocarbons, other minerals, and building materials, though radioactive minerals and hydrocarbon rights can only be granted to state enterprises. Rights are only granted to those entities that have a proven financial position, technical and organizational competence, and experience with regard to the mineral in question. Upon termination of the right, the holder must, to the satisfaction of the Minister, take the necessary steps to respect public safety, conserve the deposit, rehabilitate the area and protect the environment.

According to the Commission for the Amendment of the Mining Law, the new legislation will aim to address a few key weaknesses in the current Mining Decree. Key changes are expected to include: integration of environmental and social impact assessments (ESIAs), indigenous rights and Maroon ethnic minority rights into the new Code, increases in financial penalties for non-compliance and infractions, and increased transparency requirements to help meet the country's future Extractive Industries Transparency Initiative (EITI) obligations. The Code is being revised through a participative process and with a view to legislation in neighbouring states in the region.

The Mining Decree provides the basis for mineral agreements. Mining agreements are negotiated with the government and are promulgated as laws by the national assembly; modifications and extensions to these licenses are issued as legislative amendments (Mobbs, 2013). Agreements can be renegotiated with the consent of both parties.



SURINAME GOLD MINING PROJECT: MINERAL AGREEMENT, GROSS ROSEBEL (1994)

In April 1994, the Republic of Suriname, Grassalco and Golden Star signed the first mineral agreement governing gold mining at the Rosebel mine site. Upon its signing, the agreement had the power of law. The agreement gave Golden Star the right to explore for gold on the Rosebel site, and to develop and operate mining operations there. Prior to the signing, Grassalco had held title to the site, and as such, it was agreed that Grassalco would sell, assign and transfer its rights of exploitation to Golden Star in exchange for certain payments and options; if the exploration work eventually led to an environmental impact study and then exploitation, further payments would be made to Grassalco. Grassalco was named a shareholder in the operating company in the agreement.

As per the agreement, Golden Star is required to protect the health and safety of the general population, and to protect the natural environment, minimizing the negative impacts of operations on forest, land, water and wildlife. Obligations and rights around water use are included in the agreement. Yearly work plans and reports must be submitted to the government, reflecting operations, expenditures and production, among other things. Once exploration activities are completed, the operating company must restore—at its own expense—all affected areas as close to their original condition as can reasonably be expected. The operator must also give preference, to the maximum extent possible, to Surinamese employees and to products and services produced and offered in Suriname, provided these can be obtained at competitive terms and conditions. There are also provisions within the agreement that the company must work to minimize the dislocation of employees following the closing of the plant, through the development and implementation of an action plan

In addition, the mine operator cannot unduly disturb or interfere with the living conditions of indigenous populations settled in the area, and all employees must respect their customs. If resettlement is required, it must be carried out with the utmost caution and consultation, at the operator's expense.

There are extensive guidelines governing taxation, exemptions, payments, and royalties in the agreement. Of particular note is the royalty rate: the government negotiated a royalty rate of 2 per cent on gold produced, payable in gold for the life of the project. However, should the price of gold exceed USD 500/ounce, the additional revenue resulting from the prices higher than USD 500/ounce will be charged a royalty rate of 6.5 per cent. This has resulted in significant revenues for the government, given the relatively high price of gold in the years since the signing of the agreement.

AMENDMENT 1: GROSS ROSEBEL

The agreement governing Rosebel gold mine was amended in 2003 following Cambior's purchase of Golden Star's stake in the company. Cambior, another Canadian company, had purchased 50 per cent of Golden Star's stake in 1994, and purchased the remaining 50 per cent in 2002 (Golden Star and Cambior had submitted the EIS together in 1997). A revised EIS was prepared and submitted in 2002 prior to the granting of a right of exploitation. Many of the provisions in the original agreement remained in place under the amended deal, though under the amended agreement, royalty rates were altered: the price threshold for higher royalties was lowered from USD 500/ounce to USD 425/ounce. An agreement was also reached on the transfer of Class A and B shares to the state upon commencement of commercial production.

AMENDMENT 2: GROSS ROSEBEL

A second amendment to the agreement governing Gross Rosebel was carried out in 2006 following IAMGOLD's acquisition of Cambior. Based on this agreement, the government assumed a 30 per cent undivided participating interest in the venture. IAMGOLD, interested in expanding gold production at the site, was also required to submit an ESIA for the expansion; this ESIA would have to be approved



prior to the granting of exploitation rights. Some of the financial terms of the agreement were altered during the negotiations, namely the minimum spend obligation under the exploration right (USD 3 million), which was to be reduced by a proportional amount if the area under the permit was also reduced (i.e., a reduction in expenditure that is proportional to the reduction in the concession's size).

ENVIRONMENTAL ASSESSMENT GUIDELINES VOLUME II: MINING

NIMOS has drafted guidelines for conducting environmental assessments (EAs) in the mining sector. While not law, and not supported by a national environmental authority (NIMOS remains an advisory institution), these guidelines are followed throughout the EA process, and are encouragingly stringent throughout the process. NIMOS determines the level of assessment required for the project, and provides public notice of its course of action regarding the EA. The process is broken down into a number of key steps and components: determination of the need for and level of the EA; establish the scope and boundaries of the EA; preparation of the EA report (which will include an assessment of environmental impacts, mitigation options for these impacts, a mine closure and rehabilitation plan, a prevention and emergency response plan, and an environmental monitoring plan); and a detailed review of the EA report prior to approval.

Two pieces of legislation that are urgently needed but not yet adopted relate to environmental protection and management, and indigenous rights. The former has been drafted, and, while not yet adopted, the draft is still treated as a de facto governance document while stakeholders await its passage. In the absence of the latter, Indigenous peoples will continue to not be legally recognized as peoples or collectivities under Suriname's laws, and a lack of clarity on their rights—to land; to resources; to free, prior and informed consent; to participation and consultation—will persist. Conflicts will then continue between the state, mining companies and indigenous communities.

INTERNATIONAL COMMITMENTS

Suriname has signed and ratified a number of international agreements and commitments relevant to the mining sector, including but not limited to the following international laws, protocols and conventions:

- Suriname supports several key international human rights conventions and declarations, including the **Universal Declaration of Human Rights** (1948), **United Nations (UN) Convention on the Elimination of All Forms of Discrimination Against Women** (ratified 1993), the **UN Convention on the Rights of the Child** (ratified 1993).
- Suriname has ratified a number of central UN conventions relating to the environment, including the **UN Framework Convention on Climate Change** (ratified 1997), the **Convention on Biological Diversity** (1996), the **Ramsar Convention on Wetlands** (1985), the **UN Convention to Combat Desertification** (2000), the **Convention on the Illegal Trade in Endangered Species of Wild Fauna and Flora** (1980), and the **UN Reduced Emissions from Deforestation and Forest Degradation (UN-REDD+)** (2012).
- Suriname is also committed to the **Basel Convention for Controlling Transboundary Movements of Hazardous Wastes and their Disposal** (2011), the **Stockholm Convention on Protecting Human Health and the Environment from Persistent Organic Pollutants** (2011), and the **Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade** (2000).
- Suriname has not yet ratified the **Minamata Convention on Mercury**. Mercury use remains widespread in artisanal and small-scale gold mining, as it is cheap and easy to use. Thankfully, awareness of mercury's environmental and health impacts is growing, and the Ministry of Natural Resources has recommended ratification. The decision is now with the Council of Ministers; upon their approval the decision to ratify would go to parliament.



- Suriname is a member state of the International Labour Organization, and has ratified five of the ILO's eight fundamental conventions: **Freedom of Association and Protection of the Right to Organise Convention**, **Right to Organise and Collective Bargaining Convention**, **Forced Labour Convention**, **Abolition of Forced Labour Convention**, and the **Worst Forms of Child Labour Convention**. It has not yet ratified the **Equal Remuneration Convention**, **Discrimination (Employment and Occupation) Convention**, or the **Minimum Age Convention**. It has also not signed or ratified the **International Convention on the Protection of the Rights of all Migrant Workers and Members of their Families** (1999).
- Suriname is currently working on its application to become a member of the Extractives Industry Transparency Initiative (EITI). A multistakeholder group is in place to work on its application, which the government hopes to submit in 2017.
- Suriname is a member of CARICOM, the Caribbean Community, and is an associate member of MERCOSUR, the South American common market.



ASSESSMENT: SURINAME AND THE MINING POLICY FRAMEWORK

LEGAL AND POLICY FRAMEWORK

The first thematic area of the MPF focuses on national mining laws and policies, and permitting processes. It encourages a mature, modern legislative system with clear lines of responsibility and accountability, and highlights the types of laws and policies that serve as a basis for good governance and sustainable development. The MPF standards featured in this thematic area fall into the following categories:

- The ongoing generation of and equal access to geological information.
- The periodic revision and updating of mining legislation and policies.
- A timely, transparent, unambiguous and consistent permitting process that requires:
 - Consultation with communities in the planning and development stages of a mine.
 - Submission of integrated social, economic and environmental impact assessments.
 - Identification of sustainable development opportunities.
 - Planning for mine closure, with adequate financial assurance.
 - Protection of indigenous rights and cultural heritage, and addressing resettlement and community safety and security issues.

KEY LAWS AND POLICIES

- The Constitution of the Republic of Suriname (1987)
- The Mining Decree (1986)
- The Mining Act (draft) (2004)
- Environmental Assessment Guidelines Volume II – Mining (2005)
- The Mining Agreement for Gross Rosebel (1994) and the amendments of 2003 and 2012
- General Tax Code

THE PERMITTING SYSTEM

Five kinds of mining rights are described in Suriname's Mining Decree (see Table 3). Permit applications are considered on a first-come, first-served basis.

**TABLE 3. SURINAME MINING PERMITS**

Mining right					
	Reconnaissance	Exploration	Exploitation	Small-scale mining	Building materials
Term	Two years	Three years	25 years	Two years	Five years
Renewable	Yes, one-year extension possible	Yes: Two-year renewals, can do twice. Area covered by the right reduced by 25 per cent with each renewal.	Yes, can be extended for up to 25 years	Yes, renewable for two-year periods	Yes, renewable for periods of up to five years
Maximum size	200,000 ha	40,000 ha	10,000 ha	200 ha	400 ha
Transferable	No	Yes	Yes	No	Yes
Requirements and obligations	<ul style="list-style-type: none"> • Quarterly reports • Notification of discoveries • Annual reports • Final report 	<ul style="list-style-type: none"> • Detailed workplan • Proof of bank deposit or bank guarantee to cover expected costs for first period of the right • Start within three months • Follow work program • No breaks in activities longer than four months • Detailed workplan submitted each year • Notification of discoveries • Minimum spend • Complete and accurate records • No commercial production • Quarterly and annual reports 	<ul style="list-style-type: none"> • Application must include: program with schedule; total expected revenue; production capacity to be installed; estimate of investment capital; local goods and services used; training and knowledge transfer to Surinamese nationals; and program for rehabilitation. • Timely start • Annual estimate of coming production, exports, levies, import requirements • Reports of technical and financial data • Annual report on reserves • Quarterly reports on activities • Annual report 	<ul style="list-style-type: none"> • Quarterly report on invested capital, operating cost, number of workers (by age, nationality), tonnage of earth moved and minerals mined • Pay required levies 	<ul style="list-style-type: none"> • Post-mining rehabilitation plan • Quarterly reports on progress and results of exploration • Notification of intent to start quarrying • Keep daily records of quantities produced • Quarterly reports on exploitation • Annual report, with estimate of activities for coming year • Measures to protect ecosystems and occupation health and safety

STRENGTHS

- Some baseline geological and topographical information has been generated, and certain parts of the country (and certain concessions) have good coverage and certified resource estimates.
- A commission, representing multiple stakeholder groups (including GMD, the Bauxite Institute, the Ministry of Natural Resources, Grassalco, Staatsolie, small-scale mining, NIMOS, and the Ministries of Finance and of Rural Development) has been established to revise the 2004 draft Mining Code for submission to parliament in 2017.
- Mining permits are required and available for reconnaissance, exploration, exploitation, small-scale mining, and the mining of building materials. Each of these permits has reporting requirements outlined in the Mining Decree, reports can be quarterly or annual (depending on their content) and can require information on activities, production levels, possible and probable reserves with maps, geological data, levies and taxes paid and payable, investments, and employment numbers (including nationality, age and wages paid). The Mining Decree covers most of the mine life cycle, though there are gaps on the specific details around mine closure and post-closure rehabilitation. Similarly, it should be noted that EIA guidelines for mining address all phases of the mining cycle. While reporting requirements are made explicit in the Mining Decree, it is unclear how the Ministry manages these reports upon their submission, or how they are integrated into the national knowledge base.



- Specific mining guidelines for environmental assessments have been developed (2005) and are followed in the preparation of EIAs. The guidelines list all requirements for impact assessments, including the identification of environmental, socioeconomic and cultural impacts, the development of an environmental management plan and a closure plan, and the formulation of mitigation strategies for addressing any impacts.
- Baseline descriptions of atmosphere, water resources, land resources, soils, landscape and vegetation, wildlife, aquatic life, community, infrastructure and heritage (i.e., archaeological sites and relics) are required as part of the EIA process. These should be developed through consultation with affected communities. Impacts and mitigation measures are to be assessed and developed on the basis of these baselines.
- Public feedback is requested during the EIA process: NIMOS first provide public notice of its course of action with regards to an EIA, and the public is asked to comment on initial screening conclusions, to provide inputs during the preparation of the EIA report, and to comment on the submitted report. For large-scale mining projects, the guidelines require “extensive” public consultation. The public consultation program should include reporting on who was consulted, comments received, responses to comments, and the methodology for consultation. Consultations will include developing baselines for land and resource use in the area, as well as project-environment interactions. That said, it should be noted that there are no requirements within the 1986 Mining Decree for permit applicants to consult with communities and other stakeholders.
- Efforts are underway to consolidate governance of the sector under a Minerals Institute, with a funding mechanism (tied to royalty payments) established (the Suriname Environment Mining Foundation). This Institute would make sector governance more coordinated and efficient, as it would consolidate functions currently spread out among the Bauxite Institute, GMD, MNR, OGS and Staatsolie.

GAPS

- Mining legislation is out of date, and does not reflect current knowledge and best practice. The Mining Decree has been in place since 1986, and multiple attempts to update the legislation have stalled in parliament (see draft Mining Act, 2004). Key omissions in the current Mining Decree include: environmental and social impact assessments; links to national development goals; ties to local development; requirements for the revision of mine closure and rehabilitation plans with a changing context; requirements for extensive and ongoing community consultation; responses to commodity price volatility; financial reassurance funds for mine closure; progressive rehabilitation; adhering to international best practice on environmental management, including water, waste and biodiversity; emergency preparedness planning; protection of women and children; and artisanal mining.
- There is also no mining policy in place to guide the development of the sector, which a number of stakeholders cite as a key challenge to national governance of the sector.
- Environmental legislation is minimal. A draft environmental act has not yet been adopted by parliament, and as a result, there is no governing national legislation or national environmental authority to enforce environmental protections. This severely restricts the ability of NIMOS to enforce environmental norms. Fortunately, the draft environment act, despite not being formally adopted, is being used by stakeholders as a basis for environmental protection in practice.
- The country’s geological data and information are out of date. While GMD does maintain a public library, and some maps have been digitized, there are still significant shortcomings with regards to data and information. Much of the geological information that has been generated is only accessible in person in Paramaribo. The most recent map of the country is from 1977, and while some limited mapping is planned or underway—for example, working with



Brazil to map the shared border region—there are no concrete plans to update the national database in place. There is a pressing need to improve the level of detail in geological maps, as well as improve the capacities of GMD staff on mapping. Additionally, core sample data has deteriorated and is no longer well organized. The government acknowledges that the lack of geological data hampers its ability to negotiate mining agreements.

- While the mining life cycle is acknowledged in the Mining Decree, more is required on mine closure and post-closure rehabilitation in the permit application process (see below). Exploitation permit applications must include a program for rehabilitation, but the details of these programs are vague: it is unclear whether they must be developed with community consultation, and the extent to which they must address both environmental and social impacts upon closure and moving beyond the end of mining operations.
- Permit applications are not required to identify or quantify opportunities and propose programs that lead to the creation of sustainable benefits for the community or country over the life of the mining project.
- Permit applicants report that the permitting process is often opaque, and that the involvement of the President and Minister in the process can make the system unstable. There is a need, according to permit holders, to reduce the discretion of senior officials in the process in order to increase transparency and improve investor confidence.
- EA guidelines for mining could be improved in a number of ways:
 - Include the proximity to other existing mining projects or areas under exploration permits as part of the criteria used for screening projects and determining the need for EIA. In this way, they will be able to identify projects that might contribute to cumulative impacts.
 - Indigenous peoples currently have no land rights recognized by Suriname law. The guidelines should include assessment of impacts on livelihoods of indigenous peoples and their traditional use of the territory in order to limit social impacts on these communities.
 - Stakeholder engagement should be strengthened, including the need for complaints mechanisms and grievance mechanisms.

FINANCIAL BENEFIT OPTIMIZATION

The Mining Policy Framework's second thematic area focuses on the optimization of financial benefits through taxes, royalties and other payments, and reflects the value of mineral resources to society. The other major subtopic of this pillar is revenue transparency, on the municipal and national levels. Policy recommendations under this section fall into the following categories:

- The implementation of a revenue-generation framework that optimizes returns from mining activities and allows some minimum level of financial return during low price periods.
- The integration of planning for the mining sector with that of other economic sectors.
- Providing a policy that optimizes revenues while offering an adequate rate of return to investors, that uses income tax based on net profits, and that applies such taxes in a similar manner as to non-mining activities.
- The need for a high level of human and intellectual resources, particularly to administer and audit the country's tax system and obtain maximum benefit from its tax regime.
- The integration of fiscal instruments and policy objectives.
- Increasing revenue transparency and knowledge regarding the distribution of benefits from mining.



KEY LAWS AND POLICIES

- The Mining Decree (1986)
- The Mining Act (draft) (2004)
- The Mining Agreement for Gross Rosebel (1994) and the amendments of 2003 and 2012

TAXATION, ROYALTIES AND OTHER REVENUE SOURCES

The Government of Suriname generates revenue from the mining sector using a variety of mechanisms, including taxation, royalties, dividends, fees and local content; combined, these mechanisms account for a major portion of government revenues. Specific royalty rates are not included in the Mining Decree; the rates are to be determined by subsequent government decree. Similarly, specific corporate tax rates are not presented in the Mining Decree.

Royalty rates are outlined in slightly more detail in the draft Mining Act: the royalties for small-scale mining are 1 per cent of the market value of the extracted mineral, while royalties relating to other exploitation rights are variable and are to be assigned when the right is granted. These shall not exceed 3 per cent of the market value of the minerals, with the exception of fossil fuels. In addition to the royalty rates levied (particularly on minerals), an export royalty is also charged. This export royalty rate can have wide-reaching impacts: for gold, for example, a rate of just 1 per cent is charged, which is significantly lower than the rate charged in neighbouring countries and thus results in a fair amount of the smuggling of gold from French Guiana and Guyana into Suriname.

The parties to a mineral agreement will negotiate specific royalty and tax rates for the mine operator. These can reflect concerns around commodity price volatility and a desire to capture greater resource rents for the state in times of high commodity prices while also ensuring that production can continue when prices decline. For example, in the mineral agreement governing Rosebel gold mine, a royalty of 2.25 per cent of gold production is charged to the company, provided that that price of gold is under USD 450 per ounce. The royalty is payable in gold for the life of the project, and is paid quarterly. The 2.25 per cent royalty is divided as follows: 2 per cent goes to the state (split between Grassalco [20 per cent] and the government [80 per cent]), and 0.25 per cent is transferred into the Suriname Environmental Mining Foundation. It was agreed at the signing that should the price of gold exceed USD 450 per ounce, a royalty of 6.5 per cent is charged on all revenues earned as a result of pricing higher than USD 450. This position has resulted in very significant royalty revenues for Suriname, given the high gold prices since the agreement was originally negotiated. Similarly, on taxation, it was agreed in the amended mining agreement with Cambior Inc. that the operating entity, during the initial 25-year term of the right of exploitation, shall pay to the state an income tax rate that is the lesser of the corporate rate at the time of signing (36 per cent) and the rate of 45 per cent of net profit. A stabilization clause on corporate income tax is included in the draft Mining Act.

The government can also generate revenues through direct ownership in mining operations. For example, the government has 5 per cent free equity participation in the Rosebel gold mine and has negotiated an option to acquire up to 30 per cent of a new joint venture with IAMGOLD to expand the mine. For Newmont, the government decided to exercise its option to participate— through Staatsolie—in a fully-funded 25 per cent equity stake in the Merian gold mine.

STRENGTHS

- Revenues are generated through a mix of taxes, royalties, fees and dividends, and together these revenues make up a significant portion of the government's operating budget. In underpinning the national budget, the sector is well integrated into the country's social and economic development. While there are no provisions in the Mining Decree outlining how the government will anticipate and respond to commodity price volatility, provisions have been included in mineral agreements, whereby a higher royalty rate is charged in times of high



commodity prices, and that rate is lowered when commodity prices decline (see the Rosebel agreement, above). This provision has allowed the government to optimize the returns from mining during high price periods, to the benefit of the national budget.

- Committees are established for the negotiation of mineral agreements, though these are appointed, rather than housed within GMD as a permanent team. Agreements are negotiated using a base model mining agreement, and can be renegotiated to reflect a changing context, with the agreement of all parties.
- Corporate taxes are similar to those applied to non-mining entities in the same jurisdiction, unless otherwise agreed upon in mineral agreements. Exemptions (such as import duties, fuel taxes) and accelerated depreciation are available to mine operators, particularly in the lead-up to commercial production, to improve the investment climate. Operators can also establish a reinvestment reserve, in which up to 10 per cent of taxable profit in a given year can be deposited into the reserve prior to tax payment, provided that the funds are reinvested in Suriname within three years.
- The government is committed to joining the EITI, and is therefore working toward improved transparency in the management of revenues from the sector.

GAPS

- The equal legal standing of the Mining Decree and Mineral Agreements, with differing tax and royalty rates in each, creates parallel systems of taxation that complicate revenue generation and accounting, and can erode investor confidence. The same erosion of confidence stems from the absence of a mining policy and clear vision for the sector; potential investors do not have a clear idea of how the sector will be managed going forward, or clear evidence that risks and benefits will be shared equitably by the government and investors.
- Tax and royalty collection in the largely informal ASM sector results in significant lost revenues for the government. Similarly, the lack of transparency and record-keeping relating to the collection of payments from small-scale mining permit holders means that mining revenues are largely generated from a limited number of large-scale mining operations.
- The resources and staff capacities needed to administer the tax system, deal with transfer and other pricing issues, and to audit results is lacking, as is evident from the lack of revenues generated from most of Suriname's extracted minerals (see above). The government's inability to retain senior staff with relevant institutional knowledge compounds these problems; many GMD staff have joined the private sector—where salaries are higher—or moved from mining into petroleum. With limited resources available for training, building these internal capacities in negotiation and revenue management is not underway.
- Existing mineral agreements are not explicitly tied to national policy and development objectives.
- Revenues generated from the mining sector are largely integrated into the national budget, and there is no open or transparent data on how benefits from the sector are being distributed at the local, regional and national levels. This is particularly problematic for small-scale mining permit holders, who pay royalties on their production at registered gold house but reportedly receive limited proof of their payments; the impression among these permit holders is that the funds rarely reach the national treasury. A broader range of mechanisms should be developed to ensure that information on revenue management can be disseminated and understood regardless of language, literacy, culture or geography.



SOCIOECONOMIC BENEFIT OPTIMIZATION

The third pillar of the MPF examines how domestic laws and policies promote the conversion of extracted natural capital into human capital so that the socioeconomic benefits of mining are optimized for local, regional and national stakeholders. The policy recommendations under this theme include:

- Integration of the mining sector into community, regional and national fabrics and strategies, for example by making socioeconomic planning a part of the permitting process and by ensuring consultations with affected stakeholders take place at various stages of the mining cycle.
- Working collaboratively with governments to ensure that mining activities consider and support education and community health services.
- Ensuring high standards of occupational health and safety.
- Optimizing employment and business opportunities at and around the mine site with an objective of ensuring economic growth beyond the life of the mine.
- Addressing potential security issues.
- Considering the respect of human rights, indigenous people and cultural heritage through norms that are aligned with international laws and standards.

KEY LAWS AND POLICIES

- The Constitution of the Republic of Suriname (1987)
- The Mining Decree (1986)
- The Mining Act (draft) (2004)
- Environmental Assessment Guidelines Volume II – Mining (2005)
- The Mining Agreement for Gross Rosebel (1994) and the amendments of 2003 and 2012

STRENGTHS

- Mining is integrated into local, regional and national fabrics insofar as it is a central pillar of the Surinamese economy, is a significant source of both formal and informal employment and livelihoods, makes a considerable contribution to the national budget, and is the subject of a number of training and education programs.
- Indigenous rights are included in the mining agreement with Rosebel: specifically, employees must respect local indigenous cultures and customs, and operations must not interfere with or disturb the living conditions of these communities. This is upheld by the Saramaka People judgment of the Inter-American Human Rights Court, which now falls under Suriname's international legal obligations (Weitzner, 2008). The judgment holds that large-scale mining and associated infrastructure projects (e.g., hydroelectric dams) must support indigenous peoples' right to effective participation, including free, prior and informed consent (FPIC); that the project cannot deny these peoples the right to maintain their multiple relationships with their territory and to benefit from their traditional economy; and that the government cannot authorize mining or related activities in these territories until it has regularized their rights of ownership and control over the territory or received FPIC.
- There are provisions, both within the Mining Decree and the mineral agreement governing the Rosebel gold mine (for example), that operators give preference to the employment of Surinamese citizens at all levels of the organization, to the extent that such persons are available, qualified and suitable for such jobs. Under the Rosebel/Golden Star agreement, training must be provided to ensure the development of these skills, in their absence. See Table 4 for objectives for Surinamese employment over time at the Rosebel gold mine. In the



draft mining law, there is a provision that four years after the commencement of commercial production, exploitation right holders shall only be entitled to employ non-residents to a maximum of 10 per cent of their total staff.

TABLE 4. OBJECTIVES FOR SURINAMESE EMPLOYMENT OVER TIME, ROSEBEL GOLD MINE

Time period	Category of employment				
	Unskilled	Skilled	Clerical	Professional	Management
End of year 3	100%	75%	75%	40%	20%
End of year 5	100%	80%	100%	70%	60%
End of year 7	100%	85%	100%	80%	70%
End of year 10	100%	90%	100%	80%	70%

- According to the Mining Decree, priority must also be given to local purchasing of goods and services, provided they can be obtained on comparable price, type, variety and quantity. While this provision is included in the legislation, plans for ensuring local business development are not required as part of the permitting process. There have been efforts to promote non-mine-related industrial business services made possible by the infrastructure put in place for the mine: namely, Grassalco's efforts to process the waste rock from the Rosebel mine site into construction materials and get these materials to market via the mine's access roads.
- The Ministry of Labour is responsible for protecting and enforcing occupational health and safety standards, and as part of the permit application process, applicants must submit accident prevention and emergency response plans. These plans should focus on protecting employees and communities, and require employee training and periodic testing of procedures and protocols. Large-scale mining companies operate according to international OHS standards. The Ministry of Labour can conduct inspections of working conditions to ensure compliance with national standards; however, the informal nature of much of the sector restricts the effectiveness of some of these standards.
- OGS is mandated to work with the police and military to address conflicts among mining interests, most frequently tensions between large-scale mining operations and artisanal and small-scale miners. This does ensure a degree of conflict mediation and prevention training and capacity, though there are reports of tensions and altercations turning violent in the past (see Maripaston). There are no provisions in the legislation on how conflict or insecurity affects the status of mining rights and permits.

GAPS

- The lack of national legislation on indigenous and tribal rights—particularly with regards to land and resources—allows for tensions to easily emerge in interactions among indigenous communities and mine operators (Weitzner, 2008). For example, in 2003 there were concerns that exploration permits granted to Alcoa and BHP Billiton for bauxite overlapped with lands considered traditional territories of the country's indigenous populations. Reports state that construction commenced without communities being consulted, without them knowing or approving of plans, or with exploitation permits being granted. Communities reported that they had little information on the scope of the project being negotiated, and that their rights to free, prior and informed consent were not being upheld (Weitzner, 2008). Indigenous populations are often in constant conflict with ASM gold operations (Canadian International Resources and Development Institute [CIRDI], 2016).
- A limited amount of socioeconomic planning is required in the permitting process. While some social considerations should be included in the environmental assessment process (applicants must identify impacts on land and resource use, cultural heritage, community well-being), there is no requirement in the Mining Decree that permit applicants consider socioeconomic fabrics



at the local, regional or national level. This was in part explained during the consultations by the fact that most deposits in Suriname are quite remote, and found away from large population clusters, which limits opportunities for local development spending. While baseline information on socioeconomic conditions is required as part of the EIA process, it is unclear whether regular reporting on related impacts is an obligation for permit holders. Additionally, it is unclear the degree to which regular reporting on socioeconomic impacts is required across the mine's life cycle.

- Community consultations are not required in the Mining Decree, though they are integrated in the EIA process. Nevertheless, while these EIA-related consultations form an important part of the formulation of the environmental management and closure plans, there is little guidance on whether consultations should be continued throughout the mine's operating life in order to ensure that plans and operations reflect ongoing changes in the operating context. In fact, there is no requirement that the plans coming out of the EIA process (environmental management plan; closure and rehabilitation plan; emergency response plans) be reviewed and revised periodically to reflect changes in the operating context. There are further provisions on community consultation and compensation in the draft Mining Act, though these are not yet law.
- No strong links to either Suriname's broader education or health objectives—with explicit support for these sectors—are included in mineral agreements. This in part reflects low population densities around remote mine sites.

ENVIRONMENTAL MANAGEMENT

Suriname's sparsely populated interior remains dominated by rainforest. Informal small-scale mining, particularly in the interior, is a key environmental challenge; it is leading to deforestation, mercury contamination and the pollution of inland waterways. To date, however, there are no specific environmental laws and no national environmental authority. NIMOS is a state advisory institution that provides input, guidance and recommendations, on behalf of the office of the President, to the Ministry of Natural Resources, among others. Although its environmental impact guidance for mining is widely used, it is not required by law.

The environmental management section of the Mining Policy Framework recognizes the importance of ecosystem management to any society seeking to become more sustainable. The themes covered under this pillar include:

- Management of water resources, surface and groundwater, guaranteeing the quality and quantity of mining effluents discharged to the environment.
- Avoiding and minimizing potential adverse effects to biodiversity through different actions and measures.
- Managing mine wastes by creating facilities, commissioning reviews by experts and preparing reports to submit to the government.
- The development and implementation of an emergency preparedness program prior to the commencement of operations, updating this program during the life of the mine to meet best practice standards.

KEY LAWS AND POLICIES

- The Constitution of the Republic of Suriname (1987)
- The Mining Decree (1986)
- The Mining Act (draft) (2004)
- Environmental Assessment Guidelines Volume II – Mining (2005)
- The Mining Agreement for Gross Rosebel (1994) and the amendments of 2003 and 2012
- The Nature Protection Act (1954)



STRENGTHS

- Suriname's natural environment and its capacity to increasingly expand its natural potential is enshrined in the Constitution, as is creating and improving the necessary conditions for the protection of nature and for the preservation of the ecological balance (Ch.III, Art.6, a) and g)).
- The Mining Decree states that in the interest of the state, mining shall be carried out in an efficient way, according to most modern international techniques and methods in general to norms in the mineral industry with professional use of advanced technology and with due regard for current norms on health and safety of workers, the public as well as norms for the protection of ecological systems (Art.4). Further, mining right holders shall, to the satisfaction of the Minister, take the necessary steps to respect public safety, rehabilitate the area, and protect the environment; with authorization possible for measures to be taken by the state at the expense of the rights holder (Art.16).
- The Environmental Assessment Guidelines on mining, as administered by NIMOS, are comprehensive and proactive, providing direction on elements and aspects such as:
 - Clearly defined roles and responsibilities
 - Project screening requirements, and consideration of alternatives
 - Terms of Reference for Environmental Impact Statements, and table of contents
 - Spill and leak prevention methods
 - Baseline and scoping guidance
 - Potential impacts and common public concerns list
 - Mitigation and management plan requirements
 - Consideration for exploration and development and closure
 - Emergency prevention, response and preparedness planning and management
 - Environmental monitoring
 - Environmental standards
 - EIS review process and public consultation guidance
- The Nature Protection Act (1992) authorizes the President to designate Nature Reserves for the protection of natural resources, and it is prohibited to damage the condition of soil, natural beauty, fauna, flora in these areas, as well as discharge waste, oil products, or bilge into public waters (Art.1 and 5).

GAPS

In general, for each of the above, there is a corresponding challenge in universal and consistent application of the Constitution, Mining Decree, and EA Guidelines. Although the OGS works directly with small-scale gold miners, it is typically focused on security and not environmental inspection or monitoring or enforcement. Mining departments and NIMOS personnel have very limited resources and budget to conduct field inspections. Water monitoring by government is not done.

- Management of water resources, surface and groundwater, and guaranteeing the quality and quantity of mining effluents discharged to the environment is severely limited without an environmental authority and without resources and budget to monitor and inspect, even among mining departments. Dredging within public waters is common in Suriname for maintaining navigation and for mining river sands as an industrial mineral, the impacts of which have not been investigated or documented.
- Suriname is not a signatory to the Minamata Convention on Mercury.
- Despite provisions for environmental protection and the preservation of ecological balance in the Constitution, Suriname lacks an environmental law and authority/ministry.



- Although the Mining Decree outlines the need for efficient and international practices and norms related to health and safety of workers, the public, and the protection of ecological systems, personnel from GMD and NIMOS are not resourced to monitor and inspect activities, especially in the interior, and are barely resourced enough to consistently review applications for approval and related submissions.
- Currently, NIMOS is not an authorized agency, but an advisory body within the office of the President, and its guidance, including for environmental assessments for mining, is not binding under Suriname legislation.
- Avoiding and minimizing potential adverse effects to biodiversity through different actions and measures, although implicit in the Constitution, Mining Decree, Nature Protection Act, and NIMOS EA Guidelines for Mining, is not formalized in legislation. While nearly 15 per cent of Suriname's terrestrial land is protected, enforcement is weak, and as a result ASM is practiced widely in these spaces, with consequent impacts on fauna and flora.
- Managing mine wastes by creating facilities, commissioning reviews by experts and preparing reports to submit to the government is not consistently applied.
- The development and implementation of an emergency preparedness program prior to the commencement of operations, and updating this program during the life of the mine to meet best practice standards, forms part of the NIMOS EA Guidelines for mining, but is not consistently applied or formalized in legislation.

POST-MINING TRANSITION

To date, only a small number of mining operations in Suriname have reached the post-mining phase, and these are mostly industrial minerals pits and quarries located near Paramaribo. The sand pits and active excavations visited during the field assessment had extensive areas of old workings. Most seemed well vegetated with shallow water wetlands established and banks of limited height and low risk of failure and safety hazard. Regardless, bauxite mining rehabilitation remains a challenge.

This pillar of the Mining Policy Framework establishes the need to ensure an organized and planned post-operation transition. Adequate measures and plans required to guarantee this transition need to be taken into account and developed throughout the life cycle of the mining operation. Specifically, the aspects of this section of the MPF relate to:

- Ensuring that closure plans prepared by mining companies are of a high standard and are updated on a regular basis.
- Developing financial assurance mechanisms for mine closure.
- Taking a leading role in exploring options for orphaned and abandoned mines within the state's jurisdiction.

KEY LAWS AND POLICIES

- The Constitution of the Republic of Suriname (1987)
- The Mining Decree (1986)
- Environmental Assessment Guidelines Volume II – Mining (2005)

STRENGTHS

Similar to the findings under the Environmental Management theme of the MPF, Suriname's readiness to implement the aspects of post-mining transition such as closure plans, financial assurance, and options for abandoned mines is provided for in the Constitution, Mining Decree, and NIMOS EA Guidelines.



- Under the Mining Decree, mining rights holders shall, to the satisfaction of the Minister, take the necessary steps to respect public safety, rehabilitate the area and protect the environment. With authorization from the Minister, it is possible for measures to be taken by the state to address insufficient closure at the expense of the rights holder (Art.16).
- For the right holder to surrender their right, the Minister must deem that the holder has taken sufficient action to rehabilitate the site and ensure ongoing public safety.
- Mine closure plans, incorporating both physical rehabilitation and socioeconomic stability, are required as part of the EIA process and permit applications. These are designed to ensure that future health and safety are not compromised; environmental resources are not degraded; the after-use of the site is beneficial and sustainable in the long term; and adverse socioeconomic impacts are minimized and benefits are maximized.
- Under the EIA process, the requirements for mine closure include physical environmental rehabilitation and ensuring socioeconomic stability in mine adjacent communities. The closure and rehabilitation plan should cover all forms of waste, waste rock, waste minerals, and residues and related mining, processing, and waste facilities. The objectives include: land returned to acceptable use and free from physical and chemical hazards (including contouring, re-vegetation for a sustained ecosystem, covering shafts and opening), sources of water impact are eliminated (including acid mine drainage and seepage), waste is used to the extent feasible, and budgets with pre- and post-closure reclamation activities scheduled out are provided and reported on.

GAPS

Although the Constitution, Mining Decree, Nature Protection Act, and NIMOS EA Guidelines implicitly authorize the state and its Ministers to ensure protection of the public and environment, the authority and explicit regulations regarding the legal requirement and implementing agency are not specified and are applied inconsistently. The Mining Decree and EA guidelines explicitly refer to rehabilitation as a requirement, but they lack a specific regulation and authorized agency—not to mention sufficient resources—to implement the requirement.

- Despite Article 16 of the Mining Decree, under which the Minister is authorized to ensure mineral rights holders take the necessary steps to respect public safety, rehabilitate the area, protect the environment (even to take measures at the expense of the rights holder), there are no regulations or directions provided by the Minister to do so.
- Despite Article 17 of the Mining Decree, under which the Minister is authorized to deem appropriate public safety and rehabilitation be required prior to surrender, there are no regulations or directions provided by the Minister of Natural Resources to exercise that authority in an effective and consistent manner.
- Despite the EA Guidelines description of Mining Closure and Rehabilitation Plans required under Section 6.2 to mitigate environmental impacts identified in the environmental impact statement, the guidance is not consistently applied to all scales of mining and is not applicable to existing projects. Stakeholders stated that the review and approval process related to permits and applications, whether by NIMOS or the Ministry of Natural Resources, is not consistent and not expedient.
- Ensuring that closure plans prepared by mining companies are of a high standard and are updated on a regular basis.
 - Nothing in the legislation on consulting with communities on closure and rehabilitation plans.
 - Nothing in the Decree about periodically revising plans to reflect changing operating conditions.
 - Nothing on progressive rehabilitation in the Decree.



- Nothing on following international best practice (IFC).
- Nothing on having closure plans validated by external, independent third parties.
- No guidance or policy on Developing financial assurance mechanisms for mine closure.
- There are no details in the Mining Decree on the government taking a leadership role in exploring options for orphaned and abandoned mines within its jurisdiction.

ARTISANAL AND SMALL-SCALE MINING

Artisanal and small-scale mining (ASM) is the sixth thematic area of the MPF. With regards to ASM, the MPF aims to enhance the health, safety and quality of life of those miners working in the sector informally and outside the legal framework. It also seeks to enhance the contribution of the ASM sector to sustainable development. Policy recommendations within the ASM pillar focus on the following:

- Integrating ASM into the formal legal system through appropriate legal frameworks, technical support and formalization strategies.
- Integrating ASM into the formal economic system through the promotion of savings and investment in the sector, appropriate and transparent revenue policies, certification programs and collaboration with larger mines.
- A reduction in the social and environmental impacts of ASM operations through the provision of technical training, the adherence to minimal health and safety standards, the elimination of child labour, the promotion of the role and security of women in ASM, and the implementation of rural development and job creation policies to promote alternative livelihoods.

KEY LAWS AND POLICIES

- The Mining Decree, 1986
- Draft Mining Act, 2004

ARTISANAL AND SMALL-SCALE MINING IN SURINAME

Artisanal and small-scale mining (ASM) has been practiced for centuries in Suriname, and remains a key livelihood for many in the country, particularly those living in the interior of the country. It is largely focused on the gold sector, and at times gold exports from artisanal and small-scale mining can exceed exports from large-scale mining. For example, in 2009, 16.9 tonnes of ASM gold was officially exported, representing approximately 60 per cent of Suriname's total gold exports (CIRDI, 2016). The number continues to grow; by 2013, 22 tonnes of ASM gold was exported, representing about half of the country's gold production (CIRDI, 2016). In addition to domestic production, it is likely that a portion of these ASM gold exports are from Guyana and French Guiana, the result of a much lower export royalty rate on gold in Suriname than in either country (1 per cent in Suriname versus 7 per cent in Guyana, for example) (CIRDI, 2016).

It is unclear how many people are employed in the domestic ASM sector, due to the widespread informal nature of the work; however, estimates put that figure at 60,000 miners. There are 17,000 officially registered ASM gold miners, of which 11,000 are nationals (CIRDI, 2016). A large portion of the ASM workforce is made up of migrants, particularly from Brazil. In terms of processing, ASM in Suriname is mostly focused on alluvial and colluvial deposits, though the sector is increasingly mechanized, with small-scale mining operations dredging rivers, excavating with backhoes, hydraulicking, and using motorized crushing (CIRDI, 2016). Mercury use remains widespread; it is cheap and easy to use, and awareness of the health impacts is often limited. Men make up the vast majority of the ASM sector, according to OGS, though women are involved indirectly.



The environmental impacts of ASM are widespread, and growing. Miners working in the sector continue to use mercury for processing gold, and the country has yet to sign or ratify the Minamata Convention. In 2013, an estimated 44 tonnes of mercury was released into Suriname's ecosystem by the ASM sector (with five units of mercury used for every unit of gold produced) (CIRDI, 2016). Mercury levels in fish are high, even in areas away from ASM areas, with consequent impacts on the food chain (CIRDI, 2016). In addition, many gold buyers burn mercury off the gold they purchase in the country's cities, polluting urban air and threatening human health. According to consulted stakeholders, mercury concentrations in the air near gold-buying locations in Paramaribo are much higher than minimum levels recommended by the World Health Organization. Grassalco has introduced mercury-free gold mining at the Maripaston mine site, and is sharing its techniques with small-scale and artisanal miners in the hopes of showing how mining can still be profitable without mercury.

Additional environmental impacts from ASM include: deforestation, landscape destruction, soil erosion, river siltation, and aquatic ecosystem damage from tailings and effluents dumping. According to stakeholders consulted during the assessment process, deforestation in the interior has increased (from 0.2 per cent to 0.6 per cent), mainly because of clearing for ASM. An estimated 54,000 ha of forest have been cleared as a result of mining operations (CIRDI, 2016). Aquatic ecosystems are changing, and the quantity and quality of river fish has decreased due to increases in sedimentation and riverbed destruction relating to sand mining, threatening livelihoods and food security. Mine site rehabilitation is largely absent, which threatens the recovery of forest ecosystems (CIRDI, 2016). For many of the indigenous communities that claim economic, land and resource rights in these areas, these environmental and economic processes is often result in conflict with ASM operations, as indigenous communities push back against environmental degradation, food insecurity, lost livelihoods and encroachment. For others, a lack of economic options means there is often little choice but to abandon traditional livelihoods in favour of ASM (CIRDI, 2016).

The Mining Decree of 1986 governs the ASM sector. Under that Decree, miners can apply for small-scale mining rights, which cover reconnaissance, exploration and exploitation for an area of no more than 200 hectares, and are granted for a period of two years (renewable). The obligations of right holders are laid out in the Decree, and include: the submission of quarterly reports detailing the amount of invested capital, operating costs, the number, age and nationalities of people working in the area covered by the permit, and the tonnage of earth moved and minerals mined; and the payment of required levies. There are no requirements for right holders to include rehabilitation plans in their permit applications, and nothing on the protection of occupational health and safety or the environment.

As previously mentioned, in 2011 the government established the OGS in an effort to increase its control over the ASM gold mining sector. The OGS, with support from the police and the military, is working to enforce existing government regulations on the sector, and to mediate conflicts between mining entities and communities. It is currently building a registry of artisanal miners in the country; those who register with the OGS received a Gold Sector Registration Card, allowing them to work legally in the sector and to eventually gain access to government facilities that will be built to support sustainable community development and offer technical services.

STRENGTHS

- There are institutions in place designed to formalize the ASM sector. Permits are required for small-scale mining, as per the Mining Decree, though these are generally held by small-scale, mechanized mining operations rather than by artisanal miners. In 2011, the government formed the OGS, which was established to formalize the ASM gold sector and reassert government control over it. Its mandate is to control and legalize ASM gold mining, reduce negative impacts on humans and environment, and establish mining service centres in the interior. There is a



process in place to register ASM miners through the OGS, and permits are required to legally operate in the sector. This has led to the registration of approximately 19,000 miners active in the gold fields.

- Under Article 36.3 of the Mining Decree, the government (via GMD) is responsible for designating areas for ASM gold mining, and the government is currently studying how to establish ASM zones.
- The rights of children are protected in the Constitution and in international conventions that have been ratified by the state. Similarly, the rights of workers to safe and healthy working conditions are also enshrined in the Constitution, though given the self-employed nature of many artisanal miners, these rights have limited applicability in the sector. The Ministry of Labour is responsible for addressing human rights infractions.
- The state, via Grassalco, is attempting to demonstrate how gold can be processed without mercury at its Maripaston mine site. These activities began in 2014, and it is hoped that the techniques can be replicated and expanded to other small-scale mining operations. In addition, the Commission on the Amendment of the Mining Law is examining options for centralized, mercury-free gold processing, which would be made available to formal ASM gold operations (i.e., those holding permits). Further training and education programs have been implemented, with limited success (see below), on—for example—GPS, GIS, the use of tailings ponds, retorts and water cycling.

GAPS

- The ASM sector remains overwhelmingly informal. This continues to be a major impediment to environmental and social protection and the provision of training and capacity building; miners are working in remote areas with limited state presence, they are mobile, and they invest little in improving processing. GMD has limited capacities and resources to deal with the negative environmental and social impacts of ASM. The informal nature of ASM in Suriname and conflicting land and resource claims also result in significant tensions between ASM and large-scale mining operations.
- The lack of formalization in the sector results in significant lost revenues for the state; tax and royalty collection for the ASM sector is minimal. In addition, according to those small-scale mining operations that do hold permits, the duties paid on their production often do not reach the government: gold is sold to gold shops, and a receipt is issued, but the receipt does not list the origin of the gold or the company responsible for mining it. As a result, operators are skeptical that the royalty revenues actually reach the central government, and they have no way to prove their payments. Given the considerable size of the ASM sector nationally, stronger policies and systems for the collection, management and reinvestment of ASM revenues are needed.
- ASM is not addressed in the Mining Decree (1986), and legislative action remains slow (see draft legislation on updating the Mining Code, Environment, and Indigenous and Tribal Rights). In 2003, the MNR and MINOS took joint responsibility for the Greenstone Belt Environmental Assessment and proposed an environmental management plan for ASM gold mining, but the results of this process have not been clearly reported (CIRDI, 2016). There remains no specific legislation governing the environmental impacts of ASM.
- There is no national legislation on mercury use in the ASM sector, and the government has yet to sign or ratify the Minamata Convention on Mercury. In the absence of such legislation, the ASM sector will continue to use mercury, as it is cheap and easy to use in processing and the long-term health impacts are not as pressing as the short-term livelihood benefits. The choice between immediate work and future health is, for many, an easy one. While mercury imports technically require a license, none have been granted in the past 20 years, and the substance



remains highly accessible with no regulations. While there is a Hindrance Act (1972) in place to deal with mercury use, it is currently only applied to gold shops and not ASM operations (CIRDI, 2016).

- Migration of ASM miners and their production across the porous border remains a problem. Many people who hold mining concessions sublet them to migrant miners, and Maroon communities also rent out lands to migrant Brazilian miners regardless of whether they hold the concession (CIRDI, 2016). Despite both practices being illegal, capacities to enforce the law are minimal, so they take place with relative impunity. There is also a significant amount of smuggling across national borders to take advantage of differences in export royalties across countries, usually to the detriment of Suriname's neighbours (export royalties are much higher in Guyana and French Guiana).
- Training, education and awareness-raising programs on understanding and reducing the negative social and environmental impacts of traditional ASM techniques, including mercury use, have been largely ineffective (CIRDI, 2016). Many have failed due to the lack of consultation with relevant mining communities and attempts to introduce technologies that are inappropriate in the local context. (For example, the use of retorts in ASM to reduce mercury use has failed as local communities consider them too slow-working for their needs). Complicating training programs, there is a low degree of organization within the ASM sector, with the exception of those operations around large-scale mines (e.g., around Makambo).
- There are no mechanisms in place or in legislation to improve the savings of artisanal miners, to establish more acceptable forms of financing, to improve access to credit, or to encourage responsible investment in the sector. This in turns hampers investments in social programs like health and education.
- There are no efforts in place to encourage initiatives for fair trade or conflict-free certification or standards. Such initiatives could incentivize improved environmental or social practices through the offering of price incentives or improved market access.



ANALYSIS OF STRENGTHS AND GAPS

Suriname's Constitution and the existing Mining Decree provide general coverage across the six thematic areas of the Mining Policy Framework. Ministers are authorized to develop and implement legislation to leverage socioeconomic benefits, protect worker and public safety, support public health and the environment, rehabilitate mining areas following operations, and have permitting and processes for small-scale mining. NIMOS administers environmental assessment guidance for mining that covers much of the MPF with specifics that, if formalized in law and applied consistently, would position Suriname well among its IGF peers.

Regardless, the Mining Decree has not been updated since 1986, despite multiple efforts to do so in the past 15 years, and there is no environmental act or environmental authority. The environmental assessment guidance, although recognized and well used by many stakeholders, is not legally binding. Mine closure risks and liabilities are not consistently and adequately identified, and artisanal and small-scale mining—despite representing a significant source of livelihoods in the country—are not leveraged for the benefit of Suriname to the extent possible and envisioned among most of the assessment stakeholders.

The legal and policy context is out of date, and does not reflect current knowledge and best practice. Key omissions in the current Mining Decree include environmental and social impact assessments; links to national and local development goals; requirements to revisit and update plans to reflect changing contexts; requirements for extensive and ongoing community consultations; responses to commodity price volatility; financial assurances to cover the costs of closure and rehabilitation; progressive rehabilitation; adhering to international best practice on environmental management; emergency preparedness planning; or artisanal and small-scale mining. There is also no mining policy in place to guide the development of the sector, which a number of stakeholders identified as a key challenge to national governance of the sector. Environmental legislation is minimal, and the draft environmental act has not yet been adopted by parliament. As a result, there is no governing national legislation or national environmental authority in place to enforce environmental protections. Compounding these problems, the country's geological data and information is out of date and difficult to access. Finally, the permitting process is often opaque, and stakeholders note that the involvement of the President and Minister in the process can destabilize the system.

With regards to financial benefit optimization, the equal legal standing of the Mining Decree and Mineral Agreements, with differing tax and royalty rates in each, creates parallel systems of taxation that complicate revenue generation and accounting, and can erode investor confidence. A lack of tax and royalty collection in the informal ASM sector results in significant lost revenues for the government, revenues that could otherwise be reinvested in local development programs. Similarly, the lack of transparency and record-keeping relating to the collection of payments from small-scale



mining permit holders means that mining revenues are largely generated from a limited number of large-scale mining operations. As is a common refrain in Suriname, the resources and staff capacities needed to administer the tax system, deal with transfer and other pricing issues, and to audit results is lacking, limiting the revenues generated from most of Suriname's extracted minerals. There is little to no open or transparent data on how financial benefits from the mining sector are being distributed at the local, regional and national levels. As a result, local populations do not always see an obvious link between the mining sector and visible development benefits accruing to them in their communities.

There are similar deficiencies in terms of socioeconomic benefit optimization. One major barrier is the lack of national legislation on indigenous and tribal rights, particularly with regards to land and resources, which is a source of tensions among indigenous communities, ASM miners and mine operators. Permit applicants are also not required to do much socioeconomic planning in advance of their application submissions. While some social considerations should be included in the environmental assessment process (impacts on land and resource use, cultural heritage, community well-being), there is no requirement in the Mining Decree that permit applicants consider socioeconomic fabrics at the local, regional or national level, or that they consult with communities during the process. (Consultations requirements are included in the EIA guidelines, though this is not law). Finally, there are no strong links to either Suriname's broader education or health objectives in the Mining Decree or mineral agreements, possibly a reflection of low population densities around the country's remote main mine sites.

Environmental management around mine sites is a key area in need of legislative improvement. There is no environmental law, no state environmental authority/ministry, and no legislation—national or international—governing the use of mercury. Insufficient resources also hamper the Ministry, restricting their ability to ensure that mining adheres to international practices and norms and to inspect and monitor operations. And while the EIA guidelines are a promising step in the direction of improved governance, they could be improved by including the proximity to other existing mining projects or areas under exploration permits as part of the criteria used for screening projects and determining the need for EIA; including the assessment of impacts on livelihoods of indigenous peoples and their traditional use of the territory to limit social impacts with these communities; and strengthening stakeholder engagement, including the need for complaint and grievance mechanisms. The management of water resources, surface and groundwater, and guaranteeing the quality and quantity of mining effluents discharged to the environment will continue to be severely limited in the absence of an environmental authority and without resources and budget to monitor and inspect mine sites.

Suriname has yet to deal with large-scale mine closure and site rehabilitation, but there are weaknesses in the Decree that should be addressed in the next Mining Act. Mine closure planning is not adequately covered by existing legislation, and capacities are not in place to ensure effective mine closure planning, design, implementation, and the management of related financial assurances. While the EIA guidelines do mention mine rehabilitation and closure, they do not adequately address all standards listed in the MPF, including ensuring that closure plans prepared by mining companies are of a high standard and are updated on a regular basis; developing financial assurance mechanisms for mine closure; and taking a leading role in addressing orphaned and abandoned mines.

Finally, artisanal and small-scale mining remains both an enormous challenge and opportunity for Suriname. ASM is a significant source of rural livelihoods and income, but also a source of environmental degradation and social problems; miners are working in remote areas with limited state presence, they are mobile and they invest little in improving their processing techniques. GMD has limited capacities and resources to deal with these challenges. The informal nature of ASM in Suriname and conflicting land and resource claims also result in significant tensions between ASM



and large-scale mining operations. As mentioned, there is no national legislation on mercury use in Suriname, and its deployment remains prevalent in the sector. Unfortunately, efforts to address these social and environmental impacts have to date been largely ineffective. Thankfully, the establishment of the OGS has increased registration of ASM miners, and hopefully further increases the formalization of the sector.



RECOMMENDATIONS

For Suriname, improvements can be made across all six pillars of the MPF, and the eager participation of the government in this assessment process reflects their willingness and openness to improving their governance of the sector, to ensure that it better contributes to the country's sustainable development. Challenges remain; a currency crisis, currently underway, has drastically reduced the resources available to undertake some reforms. But thankfully the appetite is there, and with pressing needs and reduced revenues, now might be an opportune time to undertake such legislative changes to ensure that a strong foundation is in place when commodity prices recover.

Although more can be done to improve mining in the areas of financial benefit optimization, socioeconomic benefit optimization, and environmental management, each of these can be best improved with a focus on Suriname's legal and policy environment, on the post-mining transition, and on artisanal and small-scale mining.

PRIORITY AREA 1: LEGAL AND POLICY ENVIRONMENT

A mature, modern legislative regime for the mining sector provides clear lines of responsibility and accountability for governments and companies. Such a regime should provide the foundation of good governance and contribute to sustainable development in all aspects of a population's social and economic life. Capacity-building efforts in this pillar should focus on:

- Integrating international norms and best practices across all six pillars of the MPF into the draft Mining Act prior to its submission to parliament, and into the development of a mining policy to guide development of the sector.
- Reviewing and strengthening the EIA guidelines for the mining sector to reflect current best practice.
- Reviewing international best practice and experience in the establishment of effective institutions for the governance of the minerals sector (i.e., the creation of a Minerals Institute).

PRIORITY AREA 2: POST-MINING TRANSITION AND MINE CLOSURE

Modern legal and policy frameworks must involve a detailed mine closure plan, consistently require that developers provide the necessary financial assurance to implement mine closure and rehabilitation, and ensure that mine closure plans are revisited and implemented in a progressive manner throughout the life of the mine. The GMD and Commission on the Amendment of the Mining Law both recognize that increasing capacities on mine closure and rehabilitation is a key priority for the government. For Suriname, capacity building could include:



- Understanding methods for incorporating stakeholder consultations in the development and periodic revision of mine closure objectives and plans.
- Implementing and enforcing rehabilitation plans.
- Understanding the “high-risk” aspects of mine closure, and the importance of involving external experts to validate risk assessments, studies and activities associated with these activities (e.g., tailings dams, waste dumps and acid rock drainage).
- Good practice for estimating the costs of mine closure plans, and the design and management of financial assurance mechanisms to cover the costs of mine closure.
- The design and implementation of legislation on abandoned and orphaned mines.
- Updating the relevant parts of the EIA guidelines on mine closure and rehabilitation.

PRIORITY AREA 3: ARTISANAL AND SMALL-SCALE MINING

Artisanal and small-scale mining is a complex and diversified sector that ranges from informal individual miners seeking to make a subsistence livelihood, to small-scale formal commercial mining entities that can produce minerals in a responsible way that respects local laws. As mentioned, the ASM sector is a source of considerable challenge and opportunity for Suriname, and capacity-building efforts could focus on:

- Integrating ASM considerations and formalization strategies into the draft Mining Act prior to its adoption, including the establishment of legal and policy frameworks to facilitate the organization of the ASM sector.
- Understanding how to design, implement, manage and monitor ASM zones.
- Exploring initiatives for fair trade or conflict-free certification or standards.
- Improving financing, savings and responsible investment in the ASM sector.



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ANNEX: LIST OF LAWS AND POLICIES REVIEWED

LAWS

The Constitution of the Republic of Suriname (1987)

Decree E-58 of May 8, 1986 containing general rules for exploration and exploitation of minerals (Mining Decree)

Draft Mining Act (2004)

Nature Protection Act (1992)

GUIDELINES

Environmental Assessment Guidelines Volume II – Mining

MINING AGREEMENTS

Suriname Gold Mining Project Mineral Agreement Gross Rosebel among the Republic of Suriname, Golden Star Resources Ltd. And Grasshopper Aluminum Company N.V., 1994

Amending and supplemental agreement to the Mineral Agreement dated April 7, 1994 among the Republic of Suriname and Cambior Inc. and Grasshopper Aluminum Company N.V., 2003

Second amendment and supplemental agreement to the mineral agreement dated April 7, 1994 as amended on March 13, 2003 among the Republic of Suriname and N.V. Grasshopper Aluminum Company and Rosebel Gold Mines N.V. and IAMGold Corporation, 2012



LIST OF CONSULTED STAKEHOLDERS

GOVERNMENT

Ministry of Natural Resources, Geology and Mining Department

NIMOS

NV Grassalco

Staatsolie Company

Commission for the Amendment of the Mining Law

CIVIL SOCIETY

Conservation International

Labour Union (Lloyd Read)

Anthropologist on small-scale mining (Kris Healy)

PRIVATE SECTOR

IAMGold

Nana Resources

Suppliers (Pansa & Haukes)

ACADEMIA

Anton de Kom University of Suriname



IGF

INTERGOVERNMENTAL FORUM
on Mining, Minerals, Metals and
Sustainable Development