

Senegal

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INTERGOVERNMENTAL FORUM on Mining, Minerals, Metals and Sustainable Development

IGF Mining Policy Framework Assessment: Senegal

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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 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 (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 outcomes of this assessment process, the second phase of the project involves working with the participating state to develop a capacity-building program that addresses key weaknesses and gaps in the hopes that these strengthened capacities and increased understandings can be used to enhance national legislation and policies to enhance the mining sector's contribution to sustainable development.

This report presents the assessment for Senegal, with a view to: 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 Senegal, particularly those at the Ministry of Industry and Mines (MIM), for their help and support with this project. Special thanks to Rokhaya Samba, Director of the Department of Prospecting and Mine Promotion, for her invaluable help in conducting this assessment.



EXECUTIVE SUMMARY

This assessment—conducted by the Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development (IGF) and its associates at the International Institute for Sustainable Development (IISD) between April and August 2016 with support from the Government of Canada—assesses the mining law and policies of Senegal, and the country's capacity to implement the IGF Mining Policy Framework (MPF). The assessment involved extensive desk-based research and a 10-day field visit to Senegal, when 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 **major strengths** in Senegal's mining law and policy framework:

- 1. The permitting process is clearly laid out in the Mining Code, requires environmental and social impact assessments (ESIAs) for most permits and must involve community consultation.
- 2. Government revenues are generated through a mix of consistently applied corporate income taxes, competitive royalties, permit fees and joint ownership agreements.
- 3. Significant capacities exist within the Ministry to negotiate mining contracts, based on experience and the adoption of a national model mining agreement to be used in contract negotiations.
- 4. Planning for and implementing mine site rehabilitation is required as part of the permitting process and applies to exploration and exploitation, and financial assurances must be present to ensure that closure costs can be covered.
- 5. Artisanal and small-scale mining (ASM) is included in the national Mining Code and Mining Policy, and significant efforts are underway to formalize these activities through authorization cards, designated ASM mining corridors and minerals purchasing counters.

The following major weaknesses and gaps were also identified::

- 1. Funding constraints result in shortcomings in the generation and distribution of geological information; data is not yet available to a broad audience of experts and non-experts through an open online database.
- 2. No funding from the national equalization fund (established by Decree n° 2009-1334) has been transferred to local communities; visible, local development benefits from mining remain largely confined to those agreed to in mining conventions.
- 3. The generous tax exemptions available to mining permit holders in the 2003 Mining Code reduce both government revenues and the financial benefits that can accrue to the Senegalese population. They also contribute to perceptions that the interests and needs of the private sector are placed above those of mine-affected communities. Monitoring, testing, enforcement and sanctioning capacities for environmental management and mine closure remain weak.
- 4. Informal ASM mining (and associated mercury use and child labour) remains widespread despite efforts at formalization, due in large part to the presence of migrant workers operating outside of government control.



TABLE 1: MAJOR STRENGTHS AND WEAKNESSES OF EACH PILLAR OF THE MPF

MINING POLICY FRAMEWORK THEME	LEVEL OF PROGRESS	STRENGTHS	WEAKNESSES			
Legal and policy environment	Medium	 Geological information has been generated and is publicly available. The new Mining Code, developed through a participative process, has been adopted by the Council of Ministers and will be submitted to the National Assembly. The revision of the Mining Policy is currently underway. The permitting process is clear and transparent. Mining codes and standards deal with all aspects of mining, from exploration to closure. Community consultations are required in environmental and social impact assessments. Social, economic and environmental impacts are included in assessments. Mining companies must develop adequate mine closure plans for their permit application, and establish adequate funding for the costs of implementing the closure plan. 	 Funding constraints mean that shortcomings remain in the generation and distribution of geological information. Civil society actors see the community consultation process carried out during impact assessment process as insufficient. Civil society and ASM organizations do not think that they were consulted on the Mining Policy and Mining Code revisions until late in the process; with earlier consultation they would have been able to contribute to the revision in a more detailed and systematic way. 			
Financial benefit optimization	Medium	 Mining revenues are generated from a mix of taxes, royalties, fees and partial ownership in operations. Transparency and simplicity increased when relevant tax provisions were moved into the General Tax Code. Government capacities exist to negotiate mining agreements with investors. A model mining agreement guides and standardizes contract negotiations. Tax exemptions help to promote investment in the Senegalese mining sector. Development of the mining sector is a central pillar of the national development strategy. 	 The generous tax exemptions available to mining permit holders reduce government revenues and the financial benefits available to the population. Limited government revenues are generated from the ASM sector due to the largely informal nature of the subsector, with correspondingly low levels of financial support going to the sector. There are no provisions in the Mining Code or Tax Code to address commodity price volatility. Visible, local development benefits derived from the sector are largely limited to those run by the mining entities themselves, rather than from the national budget. 			



MINING POLICY FRAMEWORK THEME	LEVEL OF PROGRESS	STRENGTHS	WEAKNESSES
Socioeconomic benefit optimization	Medium	 There are mechanisms in place for the transfer of mining revenues (20 per cent of royalties and fees) to social investments in mining-affected communities. Convention agreements with large mining operations include the provision for the company to invest a predetermined amount of funds into local development. There are some positive examples of collaboration between permit holders and local authorities for aligning social investments with local and regional needs. 	 To date, no funding from the national equalization fund established by Decree n° 2009-1334 has been transferred to local communities. Effective engagement of local communities in defining social investment needs is limited.
Environmental management	Medium	 Applicants for mining permits (exploitation, concessions and small-scale mining) are required to conduct an environmental and social impact assessment (ESIA) as part of the permit application process, and a technical committee reviews submitted ESIAs prior to the granting of a mining permit. A number of other national and international laws, policies and conventions—on water, forestry, biodiversity—are in place and complement environmental clauses and requirements in mining law and policy. 	 Institutional capacity for environmental audit, risk management (prioritizing) and monitoring of mining operations is limited. The lack of enforcement and inspection capacity contributes to significant environmental degradation and pollution problems in the areas of artisanal and informal gold exploitation. International best practices on sectoral guidelines on waste, tailings and effluents management have not been broadly integrated into national laws and policies.
Post-mining transition	Medium	 The Mining Code includes the requirement for the rehabilitation of mining sites, and rehabilitation plans are also required as part of the ESIA process. Financial provisions in the form of a rehabilitation fund are required under the current regulatory framework. Communities must be consulted on closure plans as part of the ESIA process. Rehabilitation will be required for exploration activities that do not result in mining operations under the new Mining Code. 	 Enforcement of risk management and monitoring of mine closure plans is weak. Rehabilitation costs are frequently underestimated. There are no specific provisions in the regulatory framework to address the closure and transition phases of mines governed by legislation preceding the current Mining Code (2003).



MINING POLICY FRAMEWORK THEME	LEVEL OF PROGRESS	STRENGTHS	WEAKNESSES
Artisanal and small-scale mining	Medium	 The government continues to make efforts to formalize ASM. Organizations and associations of ASM miners have been established throughout Kédougou in southeast Senegal. Conflicts are decreasing between ASM miners and largescale mining operations. Training programs with miners have been undertaken to reduce the environmental and social impacts of ASM. The government is attempting to increase the transparency and formalization of the collection and management of ASM revenues. Authorization cardholders commit to a set of obligations. ASM is promoted in rural development and job creation policies. NGOs have supported the promotion of ASM methods that respect the environment. 	 The ASM sector remains overwhelmingly informal. Migrant populations from neighbouring countries continue to arrive and to mine informally, outside of established corridors and using inexpensive techniques that are destructive to the local environment. The use of mercury in gold processing remains widespread, and is done without adequate protection. Child labour remains widespread in the ASM sector. The use of child labour in mining will be prohibited under the new Labour Code. Women's health is compromised through the use of mercury as part of their role in ASM activities. Tensions results from local perceptions that the interests of large-scale operations are prioritized over local livelihoods and rights. The government generates minimal revenues from ASM sector. There is little initiative on improving savings among ASM miners, establishing acceptable forms of financing for their operations, and encouraging



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ACRONYMES

ASM Artisanal and Small-scale Mining

DMG Directorate of Mining and Geology

ECOWAS Economic Community of West African States

EITI Extractives Industry Transparency Initiative

IGF Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development

IISD International Institute for Sustainable Development

MPF Mining Policy Framework

PSE Plan Sénégal Émergent

UN United Nations

WAEMU West African Economic and Monetary Union



INTRODUCTION

Mining is a central pillar of Senegal's economy and is expected to play a significant role in the country's continued social and economic development. On the legislative and policy front, strides have been made in recent years to strengthen governance in the sector. In 2013 Senegal became a candidate country for the Extractives Industry Transparency Initiative (EITI), and will aim to become a fully compliant country by the end of 2016. The government is currently undertaking revisions of both its mining code and mining policy, with both expected to be adopted in early 2017. The government has developed and adopted a model mining convention to guide negotiations between the state and mining companies. In addition, efforts have been made to formalize the artisanal and small-scale mining sector. Challenges remain, principal among them enforcement of existing laws and policies on the ground.

Using the IGF's Mining Policy Framework (MPF) as a guide, this assessment report first presents the national development, mining and legal contexts, and then highlights the key strengths, weaknesses and gaps in Senegal's mining policies and laws, across all six of the MPF's thematic areas. The assessment was carried out by the IGF in 2016—with IISD and support from ESSA Technologies—using the following methodology:

- Desk-based research, including an extensive review of Senegal's mining laws, policies and regulations, as well as relevant literature on the sector (April–June 2016).
- Visit to Dakar and consultations with government, civil society and private sector stakeholders (June 13–22, 2016).
- Site visit to Grande Côte Operations SA, Diogo (June 14, 2016).
- Drafting of the assessment report (June-August 2016).
- Completion of final assessment report (August 2016).

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SENEGAL: THE NATIONAL CONTEXT

Senegal is continental Africa's westernmost country. It is bordered by Mauritania to the north, Mali to the east, and Guinea-Conakry and Guinea-Bissau to the south, and the Atlantic Ocean to the west. The country's coastline is bisected by the Gambia, which is almost an enclave within Senegal's borders. Dakar is the capital city.

Senegal is categorized as a country with Low Human Development, according to the United Nation's most recent Human Development Report (HDR) (United Nations Development Programme [UNDP], 2015). The country ranked 170 of 188 countries on the HDR Index in 2015, which puts the country at a similar level of development as South Sudan and Afghanistan (UNDP, 2015). Life expectancy is 66.5 years, with women living longer than men (68.3 years to 64.5 years), meaning that Senegalese live on average longer than their sub-Saharan neighbours (average: 58.5 years) (UNDP, 2015). Education, however, is a weakness: while in sub-Saharan Africa, children on average attend school for 5.2 years, in Senegal that number is just 2.5 years (UNDP, 2015). For girls, the number is even worse: Senegalese girls spend on average just 1.8 years in school (UNDP, 2015). Gross National Income (GNI) per capita is also below the sub-Saharan African average (USD 2,739 for Senegal, compared to USD 3,363), with men earning significantly more than women (USD 2,739 for men, USD 1,657 for women) (UNDP, 2015). That said, it should be noted that progress has been made: the country's HDI score has increased year over year since 1990, as has life expectancy at birth, though both mean years of schooling and GNI per capita have stagnated in recent years (see Table 2).

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

	1990	2000	2010	2011	2012	2013	2014
HDI score	0.367	0.380	0.456	0.458	0.461	0.463	0.466
Life expectancy at birth	57.2	57.8	64.1	64.8	65.4	66.0	66.5
Mean years of schooling	2.2	1.9	2.4	2.4	2.4	2.5	2.5
GNI per capita (2011, PPP\$)	1,789	1,878	2,159	2,138	2,146	2,158	2,188

Source: UNDP, 2015

Senegal's population is 14.5 million people. Of this population, nearly half (43.5 per cent) live in the country's cities (UNDP, 2015). The population is young (median age: 18.2 years) and it is growing fast (2.9 per cent per year); by 2030, Senegal is expected to be home to nearly 22 million people (UNDP, 2015). Despite there being national legislation and international conventions in place to protect the rights of children, nearly a quarter of the country's children (aged 5 to 14) work, with a significant portion of these participating in the mining sector (CIA, 2016). Finally, more than half of the population (51.9 per cent) suffers from multidimensional poverty, as measured by the UN (UNDP, 2015).



Spending on health and education in Senegal is low, but largely similar to the averages for sub-Saharan Africa: health spending is equivalent to 4.2 per cent of GDP (versus a sub-Saharan Africa average of 5.6 per cent), while education spending is 5.6 per cent of GDP (sub-Saharan Africa average of 5.1 per cent). Senegal has greater levels of gender equality than most African countries, while income inequality is in line with the African averages (UNDP, 2015).

ECONOMIC CONTEXT

Senegal's economy is largely natural resource-based. Agriculture accounts for 77 per cent of labour force participation, and the main agricultural products are peanuts, millet, corn, sorghum, rice, cotton, livestock and fish (UNDP, 2015; CIA, 2016). Agricultural products are also among the country's main exports, along with phosphates, fertilizer and other mineral resources (CIA, 2016).

Senegal's Gross Domestic Product was USD 36.7 billion in 2015, and was expected to grow at a rate of 6.5 per cent that year (CIA, 2016). Agriculture accounts for 17 per cent of GDP, services for 59 per cent, and industry for 24 per cent; key industries include construction and mining, while tourism is a significant service sector (CIA, 2016). Beyond mining, offshore oil and gas exploration is currently underway. Senegal, along with Ghana, has among the lowest levels of corruption in West Africa, and public perceptions believe that corruption continues to decrease (Transparency International, 2015).



Administrative Departments

FIGURE 1: MAP OF SENEGAL

Source: Perry-Castaneda Library Map Collection, http://www.lib.utexas.edu/maps/Sénégal.html



ENVIRONMENTAL CONTEXT

Senegal is located on the western edge of the Sahel Desert. Moving from west to east, its terrain changes from low, rolling plains near the coast to foothills in the southeast. The climate is hot and humid; the rainy season runs from May to November (though these rains are increasingly erratic, possibly a result of climate change), and the dry season (December to April) is dominated by hot, dry harmattan winds from the Sahara (CIA, 2016). Beyond the country's mineral resources, fisheries are a key resource, as are Senegal's forests, which still cover nearly half of the country (43.6 per cent)(CIA, 2016; World Bank, 2015). Deforestation rates are reasonably low: between 2000 and 2011, the country only lost 0.5 per cent of its forested areas (World Bank, 2015). Key environmental challenges include seasonal flooding and periodic drought; wildlife populations threatened by poaching; overgrazing; soil erosion; desertification; and overfishing (CIA, 2016). The UN estimates that 16 per cent of the population lives on degraded land (UNDP, 2015). As of 2016, almost a quarter of the country's area is formally protected for conservation (World Bank, 2015).



SENEGAL: THE MINING CONTEXT

Mining is an important—and growing—pillar of the Senegalese economy. While the sector contributes just over 4 per cent to the national economy and generates only 1 per cent of national employment, it is responsible for nearly 20 per cent of exports, and is an important source of foreign direct investment (BOS, 2016). Mining is a key pillar of the national development plan, and through the implementation of a series of pilot projects (see below) and continued growth in minerals demand, the government hopes to significantly expand production, create jobs, and attract foreign investment (BOS, 2016).

Currently, there are large-scale mining operations in Senegal in gold, phosphate, heavy minerals and materials for construction and the production of cement, as well as a potential project in iron ore.

Senegal's gold deposits are concentrated in the southeast of the country, in the region of Kédougou along the border with Guinea and Mali. The only gold mining operation in Senegal currently exploiting the resource at an industrial scale is Teranga Gold, a Canada-based company. The mine has been in operation since 2009, and has an expected lifespan of 13.5 years based on current production and proven and probable reserves (Teranga, 2016). The government holds a 10 per cent stake in the mine, and revenues generated are from taxes, royalties and dividends. Additional gold exploration and exploitation is underway in the Massawa area, where Randgold Resources, a South African mining company, is conducting a feasibility study for exploiting gold reserves that are estimated to hold 3 million ounces; and in Mako, where Toro Gold Ltd has recently conducted a feasibility study and completed an environmental and social impact assessment in advance of being approved to start operations.

Phosphates deposits are found along Senegal's northeast border with Mauritania, in central Senegal (Thiès, Diourbel and Louga) and in the western part of the Casamance region, south of the Gambia (BOS, 2016). The Matam area, in the northeast, is home to the largest deposits: proven reserves of 40 million metric tonnes, and further estimated reserves of 100 million metric tonnes (DMG, 2013). The mining concession for the region is held by SOMIVA (the Société Minière de la Vallée du Fleuve Sénégal). Further development of phosphate mining is a pilot project of the national government in its development plan, the hope being that an increase in production will help establish Senegal as one of the top three phosphate producers in Africa by 2023 (BOS, 2016).

Heavy minerals—specifically zircon, ilmenite, rutile and leucoxene—are mined from coastal sands northeast of Dakar along Senegal's Atlantic coast. Grande Côte Operations SA (GCO), a Franco-Australian mining company, began mining in 2013, and the mine is expected to have a lifespan of 25 years (DMG, 2013). Over the operating life of the mine, it is expected to generate (in additional to the initial USD 520 million start-up investment): CFA 6 billion in annual royalties; CFA 75 billion in taxes;



and 1,000 jobs, many of which will be filled by locals. The immense size of the operation has made GCO the third largest producer of these minerals in the world (DMG, 2013). As part of construction, GCO has refurbished and augmented the existing rail line linking the mine site to the port.

In addition to these large-scale mining operations, three large-scale cement producers hold concessions for mining limestone and clay: Sococim Industries, Dangote Cement Senegal and Ciments du Sahel. Cement production primarily supports the domestic construction industry.

Exploiting iron ore deposits in the Falémé region in southeast Senegal is a key pilot project of the Emerging Senegal Plan. Significant deposits in the region had attracted international steel company Arcelor Mittal, but the company suspended the project and eventually withdrew following the global economic crisis. The government is committed to reviving the project, and new investors have expressed interest in the deposit. The objective is to get production levels up to 15 and 25 million metric tonnes by 2020 (BOS, 2016). The impacts of the mine would be significant, according to government estimates: CFA 600 billion in foreign investment, 18,000 jobs, and CFA 700 billion in exports (BOS, 2016).



SENEGAL: KEY DOMESTIC LAWS AND POLICIES

Senegal is one of the more stable democracies in Africa, with a long history of peaceful democratic elections, active participation in international peacekeeping, and a prominent role in regional mediation. The country's civil law system is based on that of France. President Macky Sall, a geologist by training and former Minister of Mines, was elected to office in 2012; his seven-year term will expire in 2019, at which point he is eligible to run for a second term.

The following key laws, policies and regulations govern the mining sector in Senegal:

DOMESTIC LAW AND POLICIES

- The fourth Constitution of the Republic of Senegal was adopted following a national referendum in 2001. It guarantees the rights of its citizens to a healthy environment, but does not contain further text on natural resource use and ownership, environmental management or sustainable development.
- The Mining Code of 2003, enacted by Law N° 2003-36 of November 24, 2003 and implementation decree (Decree N° 2004-647 of May 17, 2004) regulates mining, quarrying and other extractives activities in Senegal. It provides a legal framework for mineral rights ownership, land ownership and usage, the types of minerals that are subject to regulation and their legal regimes, and the authorization and permitting systems for the prospection, exploration and exploitation of mining resources in Senegal. The code sets out a permitting and authorization system through which applicants can apply for and be granted prospecting authorizations, exploration permits, exploitation permits and mining concessions, as well as authorizations for exploitation of an artisanal mine, a small-scale mine or for quarrying and others extractive activities. It establishes the rights and obligations of both permit holders and the state, and includes special incentives available to permit holders during the exploration and exploitation phases, many of which take the form of specific tax exemptions. Environmental Impact Assessment requirements are also outlined in the code.

The government has drafted a new Mining Code, which was adopted by the Council of Ministers and has been submitted to parliament for approval. Key innovations in the proposed new Mining Code include: moving fiscal provisions relating to mining activities out of the Mining Code and into the General Tax Code; changes to the permitting system, most notably the removal of mining concessions from the code (to address confusion with mining permits); increases in permitting fees; increases and variations in mining royalty rates; strengthened



legislation relating to local revenue sharing, mine rehabilitation and financial assurances for mine closure; required compliance with the EITI; simplified terminology around mineral exploitation; strengthened legislation around sanctions and permit revocation in cases of non-compliance; the creation of promotional zones to encourage investments in areas with high mineral potential; and reorganization of the Mining Social Program (Le Programme Social Minier – PSM) toward a Development Support Program (DSP).

- The Mining Policy (2003) stresses the Government's main goal of attracting investments in the mining sector and creating more favourable conditions for its contribution to sustainable development. It recognizes the economic importance of mining activities and the need to promote the sector's harmonious development through targeted efforts and capacity building in a number of areas: legal, institutional, technological, scientific and cadastral. The key priorities outlined in this 2003 policy were:
 - o Improving Senegal's legal framework on mining, including the adoption of a new mining code (2003).
 - Improving the collection and management of geological data, and establishing a Geological and Mining Information System.
 - O Building efficient institutions in the sector.
 - O Establishing a favourable tax regime and mitigating investment risks.
 - ^o Increasing local expertise.
 - O Promoting, supporting and managing artisanal and small-scale mining.
 - O Promoting domestic processing of mining products.
 - O Protecting the environment.

As with the Mining Code, the Government of Senegal is in the process of revising its mining policy, and aims to have the new policy in place in early 2017.

- The Senegal Model Mining Agreement supplements the Mining Code (2003) and governs the Government of Senegal's contractual relationships with permit holders during the exploration and exploitation phases of a mining project. It is used to standardize contracts and negotiations between the state and large mining companies. Regular mining permits underpin all agreements between mining companies and the state.
 - The model agreement confirms a company's right to explore or exploit mineral resources in exchange for compensation to the Senegalese government. It establishes the company's rights and obligations, and defines the government's role and responsibilities throughout the cycle of the mining project. It anticipates the share of revenue (royalties, state participation) to be attributed to the state in return for investment protection, and sets out taxation conditions as well as legal, administrative and financial safeguards. The model agreement also provides detailed provisions regarding environmental and social protections, tax exemptions and state participation in the enterprise.
- Emerging Senegal Plan (Plan Sénégal Émergent PSE) is the country's long-term development vision. Launched in 2014, the PSE aims to achieve sustainable, inclusive economic growth, improved governance and development progress by 2035. A government ministry has been established to guide and monitor implementation of the plan, and project managers have been assigned to implement the 27 pilot projects tied to the achievement of the PSE's objectives. The mining sector represents one of six priority sectors identified in the PSE; it is seen as a central to attracting foreign direct investment and improving Senegal's trade balance (BOS, 2016). Within the mining sector, six pilot projects have been identified as crucial to driving economic activity and job creation:



- O Further development of the country's phosphate deposits;
- O Relaunching iron ore exploitation at Falémé;
- o Increased exploitation of the country's gold deposits;
- o Formalization, monitoring and promotion of artisanal mining;
- o Increased exploitation of zircon and other heavy minerals; and
- O Establishment of Dakar as a regional mining hub.
- The General Tax Code of Senegal (2012) revised, consolidated and streamlined all taxrelated provisions that had previously been contained in a number of different laws and
 regulations, including the Mining Code (2003). The Tax Code governs direct taxes, indirect
 taxes, registration fees, stamp and advertisement fees and related taxes as well as taxation
 procedures. The 2012 Code aimed to achieve greater consistency and to better articulate
 Senegal's economic and social policy objectives, namely to:
 - o Improve the tax system;
 - ^o Increase the state revenue by expanding the tax base;
 - O Promote greater fiscal equity and compliance; and
 - ^o Establish a common competitive tax law that can promote economic growth and improve business environment.
- Additional domestic laws relevant to the mining sector include: the Environmental Code of 2001, the Forest Code of 1998, the Water Code of 1981, the Labour Code of 1997, the National Domain Law of 1964 and the Investment Code of 2004.

INTERNATIONAL COMMITMENTS

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

- Senegal's constitution (2001) affirms the country's support of and adherence to a number of 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 1985), the UN Convention on the Rights of the Child (ratified 1990), and the African Charter of Human and Peoples' Rights (1981).
- In addition, Senegal has ratified a number of central UN environmental conventions, including
 the UN Framework Convention on Climate Change (ratified 1994), the Convention on the
 Conservation of Migratory Species of Wild Animals (1988), the Convention on Biological
 Diversity (1995), the Ramsar Convention on Wetlands (1977), the UN Convention to Combat
 Desertification (1995) and the Convention on the Illegal Trade in Endangered Species of Wild
 Fauna and Flora (1977).
- Senegal also adheres to the Basel Convention for Controlling Transboundary Movements of Hazardous Wastes and Their Disposal (1993), the Stockholm Convention on Protecting Human Health and the Environment from Persistent Organic Pollutants (2004), and the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (2001). More recently, in March 2016 Senegal ratified the Minamata Convention on Mercury.
- Senegal is a member state of the International Labour Organization, and has ratified all
 eight of the International Labour Organization's (ILO's) 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, Equal Remuneration Convention, Discrimination (Employment and Occupation)



Convention, Minimum Age Convention and the Worst Forms of Child Labour Convention. It has also ratified the International Convention on the Protection of the Rights of all Migrant Workers and Members of their Families (1999).

- Senegal submitted its application to become a Candidate Country of the Extractives Industry
 Transparency Initiative (EITI) in 2013. It published its first report (covering 2013) in October
 2015, and with the submission of its next report in October 2016, hopes to become an EITICompliant Country.
- In addition to the above, Senegal is a member of the African Union (AU), the Economic Community of West African States (ECOWAS), the West African Economic and Monetary Union (WAEMU), and the Organization for the Harmonization of Business Law in Africa (OHBLA). Senegal's membership in these organizations commits the country to upholding relevant international policies on mining, including the AU's African Mining Vision and WAEMU's Mining Code (Regulation No. 18/2003/CM/UEMOA December 23 2003) and Mining Policy (Act No. 01/2000 December 14 2000).



ASSESSMENT: SENEGAL AND THE MINING POLICY FRAMEWORK

LEGAL AND POLICY ENVIRONMENT

The Senegalese people own all the country's mineral resources. The Ministry of Industry and Mines ("the Ministry") through the Directorate of Mines and Geology (DMG) manages mining resources, and administers and monitors the permitting process. In addition to the DMG, the Ministry of Mines has two other central directorates: the Directorate of Prospecting and the Promotion of Mines, and the Directorate of Control and Monitoring of Mining Operations.

The first thematic area of the MPF focuses on national mining laws and policies and the 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:
 - Onsultation with communities in the planning and development stages of a mine.
 - O Submission of integrated social, economic and environmental impact assessments.
 - Oldentification of sustainable development opportunities.
 - O Planning for mine closure, with adequate financial assurance.
 - Orotection 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 Senegal, 2001
- The Mining Code, 2003
- The Mining Policy, 2003



- Decree No. 2004-647 of May 17 2004 on establishing the modalities for implementing the Mining Code, law 2003-36 of November 24 2003
- The Model Mining Convention, 2012
- The Environmental Code, 2001, and all associated orders

THE PERMITTING SYSTEM

The Mining Code (2003) regulates and governs the permitting system in Senegal. The code outlines the mining permits available to applicants, which cover different stages of development for both mines and quarries. Under the 2003 code, mining permits in Senegal include prospecting authorizations, exploration licenses, exploitation licenses, mining concessions, small-scale and artisanal mining authorizations, and authorizations for the exploitation of quarries. There are two legal regimes included in the code: the mining legal regime and the legal regime for quarries.

The Mining Code is currently under revision, and changes are expected to occur. These changes are designed to increase the sector's contribution to the national economy and to local development, while continuing to attract foreign investment to Senegalese mining. The Ministry will no longer issue mining concessions, and in addition to the current permits available, the proposed code will introduce more licensing products, such as a production-sharing agreement, an exclusive authorization for exploitation, and regulations for semi-mechanized mine exploitation. Sanctions and penalties for infractions (including non-payment of taxes, irregularities in documentation, illegal mining activities, fraud, and health and safety violations) are also laid out in greater detail. There will also be additional transparency and audit requirements in the new code, including requirements to comply with EITI standards.

Prospecting authorizations are granted for a period of six months and are renewable only once for a further six months. They give any person the right to prospect for the targeted substances within an authorized zone and are non-exclusive. The authorizations grant a prospecting right, and do not guarantee that any other mining rights or title will be obtained.

The right to explore for minerals is secured through an exploration permit and is often sanctioned in an agreement between the state and the mining entity. This permit gives the holder an exclusive right to search for the mineral substances for which it was issued. Upon discovery of a commercially viable deposit, an exploration permit holder has an exclusive right to an exploitation permit covering the discovery. Exploration permit holders must comply with specific obligations: the exploration work must begin within six months of the granting of the permit, and the holder must regularly report on the exploration activities and results.

The new Mining Code includes changes to the legislation around **exploration permits**. A maximum of two exploration permits can be issued to a given individual or corporation, and permit holders are now obligated to restore sites affected by exploration work that does not result in the discovery of traces or a commercially viable deposit. In addition, all necessary arrangements for protecting the environment must be made throughout exploration activities, while the draft legislation also increases the number of reasons for which an exploration permit can be revoked.

Exploitation permits in Senegal are granted for an initial period of five and they are renewable until exhaustion of the deposit. **Mining concessions** are granted for a period of between five and twenty-five years and are also renewable until exhaustion of the deposit, but with the adoption of the new mining code, these concessions will no longer be granted (the difference between an exploitation permits and a mining concession was a source of confusion for applicants in the old Mining Code). Exploitation permits give the holder exclusive rights to operate and freely use the mineral substances for which the right was granted, to transport the extracted substances, and to sell them on foreign markets. The titleholder has an exclusive right to exploit the mineral resources, a right to renew the permit up to the exhaustion of the deposits, and a right to stable legal, administrative, financial and



fiscal conditions of exploitation as they were at the time the permit was granted. Mining permits for large-scale projects are subject to a mining agreement (referred to as a mining convention) between the permit holder and the state.

A titleholder's obligations include: the need to comply with an agreed timetable and start operations as soon as possible and with due diligence; to regularly report and declare progress on mining activities; to compensate for damages incurred by the state, individuals or corporations; to rehabilitate and restore sites after the completion of activities; establish funds to cover mine closure and rehabilitation costs; to undertake an environmental impact assessment; and to respect national labour standards for health and safety. The new Mining Code outlines additional financial penalties to be imposed (before revocation or cancellation of the mine exploitation permit) if the investment is not made within a year of the permit being issued.

Mining agreements govern the relationship between the state and a mining company for exploration and exploitation activities. The agreements are negotiated once the permit applications have been received, and set out the conditions in which a permit holder can undertake the anticipated mining activity in a defined area for the duration of the agreement. These conditions are legal, economic, and financial, and include taxation and custom rules. The agreements supplement the Mining Code. Also outlined in the agreement are the administrative, social, environmental, operational and technical rules that bind the state and the titleholder. Mining agreements for exploration and exploitation must include an operation plan, a timetable, and list of expenditures, as well as maps for the intended project. Information on agreements including the level of investment as well as technical information that include permitting maps (carte des permis miniers) and plans are to be published on the Ministry's website upon signing. Additional information such as integral mining contracts with technical annexes could be made accessible to the public pursuant to prior consent of the mining company. With the new Mining Code, mining agreements will be published on the official site of the government of Senegal.

Authorizations for small-scale and artisanal mining exploitation are granted for minerals such as gold, diamonds and other gems and for quarries. In the Mining Code, a small-scale mining authorization is granted for a period not exceeding three years and is renewable for periods of three years until exhaustion of mineral deposits; an artisanal mining authorization is issued for a period not exceeding two years and is renewable for periods of three years until exhaustion of deposits. Finally, authorizations for operating quarries are available to individuals or corporations, whether or not they are nationals. Authorizations for opening and operating a public, private and temporary quarry are included in the 2003 code. In the new Mining Code draft, an environmental and social impact assessment (ESIA) is required from anyone applying for a mine exploitation permit, an authorization for operating a private quarry, or authorization for small-scale mining.

STRENGTHS

- Geological information has been generated for Senegal and is publicly available. Maps are available to the public, particularly for those areas that have historically been mined: Kédougou and the southeast, the phosphate deposits of the northeast border area, and the western coast. The maps are available in physical form from the offices of the Ministry in Dakar. Significant mapping was undertaken as part of the European Union—Government of Senegal Mining Sector Support Programme (Programme d'Appui au Secteur Minier PASMI) from 2007 onwards: an airborne geophysical survey of the southeast of the country, the development of a Mineral Documentation and Mining Cadastre Centre, and an extensive mapping of the Senegal Basin (SIM Senegal, 2016). The Directorate of Prospection and Geological Services reports that it will be financing more detailed mapping in regions of interest.
- The Government of Senegal is in the process of revising its Mining Code and developing a new Mining Policy. This will be the first revision of the country's mining legislation since 2003, when the current code and policy were adopted. The new code and policy will contain language



on sustainable social and economic development, increased transparency obligations, environmental protection, tighter timelines on commencing operations, and stricter guidelines on mine closure and rehabilitation. Adoption of the new legislation has been delayed; it was originally planned for 2015, but the government now hopes for adoption in early 2017. Since the 2003 adoption of the Mining Code and Policy, periodic and complementary decrees and orders have updated legislation in areas such as transparency (see Decree No. 2013-881).

- The permitting process is clear and transparent, with detailed descriptions of required documentation, obligations and timelines for issuance, renewal and renunciation. Guidelines for each permit type are clearly laid out in Decree No. 2004-647, issued to guide application of the Mining Code. The system is also flexible, as it allows for title conversion (i.e., a small-scale mining authorization can be converted into an exploitation permit).
- Permits governing prospecting, exploration and exploiting are required for large-scale operations, while authorizations are also required for small-scale and artisanal mining and quarry operations. Article 83 of the Mining Code requires that exploitation permit holders be obliged to rehabilitate and restore sites after completion of mining activities, and holders must establish trust funds to cover the costs of this rehabilitation. Reporting requirements for permit holders are in Decree No. 2004-647, including timing and content. For example, at the end of the prospecting phase, the permit holder must submit a report to the government detailing the work done and results generated, as well as any related technical documents (Article 12).
- Community and stakeholder consultations are required as part of the environmental and social impact assessment process. As per the 2003 code, as well as the Environmental Code (Law 2001-01) that governs the ESIA process, the first stage for big projects is a public review of the project, in which the proposed project is presented to the public for consultation, with a neutral regional government representative assigned to answer any questions that stakeholders may have. This review takes place over the course of 15 days, during which the representative should visit all affected communities to conduct reviews in the local language. All results of the community visits, including documentation of community and intervener comments and concerns, must be reported on. Once the draft ESIA is presented to the Ministry of Environment by the mining entity, there is a technical validation process as well as a public validation, during which the population is informed of the risks of the project and can ensure that their local needs are included in the report. The local population has the opportunity to reject the report at this stage if it does not feel that its concerns have been integrated (though this is rare in practice). For large mines, companies establish local development committees with affected communities and local authorities to help guide social and economic development programs and establish a platform for open communication for the project's life cycle.
- Social, economic and environmental impacts are included in the assessment process. Impact assessments must include management plans for environmental and social risks, and are prepared by independent consultants officially sanctioned to do so by the government. Mining companies or mining project developers are required to pay for the impact assessments, and the Ministry of Environment approves the independent parties that can conduct assessments in Senegal. These accredited independent ESIA practitioners can carry out ESIAs for a period of five years (renewable). Sanctions can be applied to ESIA companies if the technical committee that reviews the studies deems that the ESIA has been poorly prepared—after three such poor-quality ESIAs, the ESIA company can lose its accreditation to carry out impact assessments. These impact assessments must include baselines for current social, economic and environmental conditions, an identification of potential risks and impacts, and the proposed mitigation and management measures. Once completed, there is a review process in place designed to ensure that all relevant stakeholders have the chance to comment on the ESIA draft prior to finalization.



- Opportunities for sustainable benefits from mining are identified and agreed upon in the
 negotiation of mining agreements with large-scale investors. Identifying and agreeing to such
 opportunities is integrated into the model mining agreement, with benefits including: jobs,
 income, infrastructure, health services, local business and service provision, development and
 education.
- Mining companies are required to develop adequate mine closure plans as part of their permit application, and must establish adequate funding to cover the costs of implementing the closure plan. Decree No2009-1335 (November 30, 2009) created a Mining Rehabilitation fund and laid out the requirements for its financing and operation. In the new Mining Code, restoration and rehabilitation obligations now extend to exploration licenses as well, meaning that for those exploration activities that do not result in an exploitable deposit, companies must still rehabilitate lands to address any damages that have occurred while looking for economically viable deposits.
- Respect for and protection of human rights in mining legislation will be strengthened in the new Mining Code, to support corresponding national laws and Senegal's compliance with its international and regional obligations. Respect for and protection of human rights will be included as an obligation for the permit holder.

WEAKNESSES

- Funding constraints mean that shortcomings remain in the generation and distribution of geological information. Extensive geological maps have not been generated for all areas of Senegal; those regions that have historically not been mined—such as the central basin—have not yet been extensively mapped. In addition, while geological information is available, it is only available through the offices of the Ministry in Dakar; an online portal has not yet been developed, which restricts access to those who are based in or can visit Dakar. Geological maps are not linked to databases used for national land-use planning.
- Civil society actors see the community consultation process as insufficient. Interviews with civil society actors found that community stakeholders typically do not believe that enough time is given to review projects and impact assessments, that the use of only French in reviews and documentation restricts the ability of local communities to fully participate in the process, and that resource constraints limit the government's ability to include affected communities. While ESIAs are made public, they are only made public in their physical form at the Ministry in Dakar, and only in French, which limits access to those who can access the capital and read the language. Additional concerns about the quality of the ESIA process were voiced by civil society. These organizations reported that for the Sabodala gold mining project, for example, an ESIA was not initially completed prior to the project permit being granted, despite legislation being in place that required it; the ESIA was completed only following complaints from civil society, and the final product was not of a high quality.
- Some civil society organizations and ASM organizations do not think that they were consulted on the Mining Code revision and Mining Policy development until late in the process. While they are now actively participating, many believe they should have been involved from the beginning of the revision of the code; this would have given these organizations more of an opportunity to provide early guidance on the revision of policy and legal aspects relevant to their work. For the development of the mining policy, the government established a consultative process to involve various stakeholder groups.



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 at the municipal and national levels. The 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 periods of low prices.
- The integration of planning for the mining sector with that of other economic sectors.
- The provision of 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 manner similar to that of 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 Code, 2003
- The Mining Policy, 2003
- The General Tax Code, 2012
- The Model Mining Convention, 2012

MINING TAXATION AND ROYALTIES

Mining permit holders in Senegal are subject to a variety of royalties, permit fees and taxes. The new Mining Code amends the fiscal regime associated with mining by shifting certain mining taxation into the General Tax Code (2012). Prior to that shift, the tax regime was often viewed as favourable to mining entities, designed to attract foreign investment to the detriment of the national budget. Mining companies operating in Senegal are guaranteed a stable fiscal regime, and as a result many must abide by tax and royalty laws in place when they signed their mining agreements, which can predate the shift of mining tax laws to the General Tax Code.

The corporate tax rate in Senegal is 30 per cent and is applied to corporate profits (Article 36, General Tax Code). From 2006 to 2012, the corporate tax rate was 25 per cent, and—due to fiscal stability clauses in mining agreements—many mining companies will still be paying this reduced tax rate. Mining companies are subject to a number of tax exemptions depending on their permit. During the **exploration phase**, permit holders are exempt from all taxes, including corporate taxes, property taxes (except residential), patent taxes, customs duties, transactional taxes such as Value Added Tax (VAT), taxes on imported equipment and materials essential for exploration activities, and taxes on petroleum products used in fixed installations. The taxation regime for exploration titles would not (likely) change significantly with the shift to the General Tax Code, as the General Tax Code provides for similar exemptions and incentives.

exploitation phase of a mining project (between the issuance of the mining permit and the start of commercial production). Permit holders are exempt from all taxes and duties (including VAT) on imported equipment and materials for exploitation activities, and on petroleum products used in fixed installations. The exemption period could last up to two years for an exploitation permit. During a period of three years from the date of the issuance of the mining title, an exploitation permit holder is



also exempt from: all customs fees; VAT on goods and services purchased locally; import duties; taxes on improved and unimproved property; employers' withholding taxes; patent taxes; and taxes and duties on incorporation or increases in capital deeds.

For large investments under the 2003 Mining Code, companies holding mining concessions are exempt from corporate taxes for a minimum period of 7 years and maximum period of 15 years. These corporate tax exemptions will not be available in the new Mining Code, as mining concessions will no longer be granted, but due to fiscal stabilization clauses will still apply to those companies currently holding mining concessions. All exploitation titleholders, including small-scale mining authorization holders, are exempt from export taxes and duties on the sale of extracted minerals during the exploitation period. The General Tax Code does not provide for temporary corporate tax exemptions for mining permit holders. As such, all companies with taxable income from mining activities through exploitation permits will be subject to the annual corporate tax of 30 per cent. Rehabilitation funds—required by law for mining and (under the new code) small-scale mining permit holders—are not subject to corporate tax.

Under the 2003 Mining Code, during the investment phase **small-scale mining permit holders** are exempt from all taxes and duties including VAT on imported equipment and materials essential for exploitation activities, as well as on petroleum products used for the operation of fixed installations for up to a year after the issuance of their title. For the duration of the exploitation, small-scale mining authorization holders are also exempt from export tax and duties on sales of extracted minerals. However, they are subject to corporate taxes if operating as a small-scale mine, and income taxes if mining as individuals.

Under the 2003 Mining Code, a royalty rate on production of three per cent is applied to mining companies operating in Senegal. This rate is expected to increase under the new code; royalty rates will vary by mineral, to a maximum rate of five per cent. Specific royalty rates can also be negotiated with individual mining companies in their mining agreements, and can then be renegotiated should circumstances require it, such as in response to commodity price volatility. Royalty payments are not included in state profits covered under production-sharing agreements. In 2009 a government decree established that 20 per cent of mining royalties and fees received by the state are to be put into a fund for supporting local communities; a 2015 decree mandated that 20 per cent of the funds were to go to local communities directly affected by mining operations, and 80 per cent were to go to Senegalese communities more generally. The new Mining Code will also introduce an annual surface royalty payable by all permit holders (including research and quarry permits); for small mine permits, the royalty will be 50,000 CFA per hectare, and for mining permits, the rate is 250,000 per square kilometre (DLA Piper, 2015).

Additional fees for exploitation permit holders under the new Mining Code include an annual contribution of 0.5 per cent of sales after tax to a fund supporting local development, which will in turn be invested into economic and social development projects, and must include projects focused on women's empowerment (DLA Piper, 2015).



BOX: SENEGAL AND THE EXTRACTIVES INDUSTRIES TRANSPARENCY INITIATIVE (EITI)

The process for Senegal's entry into the Extractives Industries Transparency Initiative (EITI) officially began in 2013 with Government Decree No. 2013-881, which established plans for the creation, organization and functioning of a national committee mandated to comply with and accede to the EITI. Since the decree was issued, a national EITI office has been established, Senegal has been accepted as a Candidate Country for the EITI, and the country's first EITI report has been prepared and was submitted in 2015. According to this initial report, mining contributed USD 80 million to government revenues in 2013 (ITIE-Senegal, 2015).

National committee members hope that with increased transparency and information on revenue flows, decision making in the sector will improve, and monitoring can be further strengthened. A significant challenge—and a big part of their mandate—will be getting this information to local communities: currently, many feel that they have very little information on the mining sector and mining revenues, that they have no voice and that they see few benefits from mining. This is particularly true for the region of Kédougou. Thankfully, revenue transparency should continue to increase, as reporting obligations for companies are included in the new Mining Code. With the submission of its report in October 2016, Senegal hopes to become a fully compliant with the EITI.

STRENGTHS

- The government generates revenues from a mix of taxes, royalties, permit fees and partial ownership in mining operations. The corporate tax rate in Senegal is based on profits, and the rate used in the mining sector is the same as that applied in other jurisdictions and sectors of the economy (as per the General Tax Code). The corporate tax rate is 30 per cent (it was 25 per cent until 2012), which is generally competitive with other mining countries in sub-Saharan Africa (BOS, 2016). Royalties are also competitive at 3 per cent, and were established based on a comparison with rates in similar African countries (the general rate will be increased in the new Mining Code, from 3 per cent to 5 per cent). Royalty rates from large companies can vary by mining agreement, but can also be renegotiated should one of the two parties to the agreement request a change. The government can assume a shareholder role in mining operations, with rates of ownership ranging from 10 per cent to 35 per cent. The new Mining Code is in part designed to increase government revenues from mining moving forward; in addition to increased royalty rates, permit fees will be increased.
- The transparency and simplicity of generating revenues from the mining sector has increased since relevant provisions were moved out of the Mining Code and into the General Tax Code. This move has helped streamline, consolidate and amend tax provisions relating to the mining sector that had previously been spread across the Mining Code, the investment code and other legislation. The taxation provisions contained in the General Tax Code are less generous for permit holders than those previously contained in the Mining Code; for example, the period of time during which permit holders are exempt from certain taxes and customs duties has been reduced, and exemptions on export duties are no longer provided. Perhaps most importantly, corporate tax exemptions during the exploitation phase are not provided in the code.
- The Ministry has a team to negotiate mining agreements with large-scale investors that includes a focal point within the Ministry of Finance. With funding from the World Bank, the Ministry has worked with the International Senior Lawyers Projects on training programs to build staff capacities in contract negotiations (InfoMines, 2015). The new Mining Code also aims to increase the government's auditing capacities.
- The Ministry uses a model mining agreement to guide and standardize the negotiations. Senegal's model mining agreement is coherent and consistent with the 2003 Mining Code, but encouragingly contains social and environmental provisions that go beyond the code (provisions that include employment, health, education and knowledge and technology transfer). The model agreement outlines the permit holder's obligations prior to, during and after operations, and includes most provisions recommended by the International Bar Association's Model Mining Development Agreement; however, these provisions could be more detailed and comprehensive.



- Tax exemptions during the research and construction phases help to promote investment in the Senegalese mining sector. Increased investment is a key objective of the government, as more investment will generate more revenues and more employment, among other benefits. The tax exemptions serve to reduce the financial burden on investors during the early phases of a project, during which no revenues are being generated. The General Tax Code states that companies that hold exploitation licenses are exempted from the minimum tax for a period of three years following the date of issuance of their titles, during which they are not generating enough revenue to pay corporate taxes. Investors are also guaranteed stable legal, administrative, financial and fiscal conditions in their agreements with the state; permits are governed for the life of the permit by the laws and conditions in place at the time the permit was granted.
- The government is working, through legislation, to increase the financial benefits accruing to local communities from mining activities. This includes the 2009 decree establishing that 20 per cent of royalties will be channelled into a fund to be distributed to mine-affected communities and the Senegalese population more broadly, as well as the condition in the new Mining Code dictating that exploitation permit holders contribute 0.5 per cent of annual after tax sales revenue to a fund for supporting local development. For titleholders operating in the research and development phases, the annual amount contributed to the fund is negotiated and included in mining agreements. Support and funding for local development is also included in mining agreements between the state and mining companies.
- The development of Senegal's mining sector is a central pillar of the national development strategy (the PSE). Within the PSE, and for each of the proposed pilot projects on mining, the government has included estimates on required public and private financing, revenues, employment and exports, as well as a target GDP contribution for the sector.

WEAKNESSES

- The significant number of tax exemptions available to mining permit holders reduces government revenues and thus the financial benefits available to the population. At the drafting of the 2003 Mining Code, the focus was on attracting investors to Senegal's mining sector with low tax rates and a variety of exemptions, often at the expense of government revenues. There is, for example, almost no taxation during the exploration phase. This in turn reduces the amount of money available for reinvestment in local development programs. In addition, the corporate tax rate is based on profits, which exposes the government to revenues losses through transfer pricing. The new Mining Code will try to address some of this imbalance, as it moves move toward capturing more revenues for the state through increased fees, simplified taxes and increased royalties.
- Limited government revenues are generated from the ASM sector due to the largely informal nature of the subsector. While recent initiatives aimed at formalizing ASM activities have been implemented, including authorization cards and purchasing counters, the state has not yet seen a significant amount of revenue coming out of ASM. It is still too early to see how effective these formalization strategies will be, particularly in light of the number of migrants who continue to cross into Senegal from neighbouring countries to mine informally.
- There are no provisions in the Mining Code or Tax Code to address commodity price volatility. Royalty and tax rates do not fluctuate with or anticipate commodity price changes to optimize resource levy revenues in times of high mineral prices, or to minimize the need for mining companies to reduce or end production when prices decline. While rates agreed to in mining agreements are open to renegotiation, this process can take years, by which time the prices could have changed again.



• Visible, local development benefits derived from the sector are limited to those aligned with social and economic development programs run by the mining entities themselves, rather than from the national budget. The revenues derived by the state from the mining sector are integrated directly into the national budget, and are not distributed into national, regional and local budgets in a clear and transparent way. While the government established, by decree in 2009, a funding mechanism to support local community development, none of these funds (which should account for 20 per cent of royalties) have been distributed to communities.

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 Mining Code, 2003
- The Mining Policy, 2003
- Decree n° 2009-1334 on the creation of the social fund for the distribution of mining benefits and support to local communities
- Decree n° 2015-1879 introducing modifications on the distribution of the social fund
- The Model Mining Convention, 2012
- The Labour Code 1997 (Law 97-17)

Before the 2003 Mining Code, there was no regulatory requirement in place for companies to make social investments in mine-affected communities—contributions to local community development would be negotiated on a case-by-case basis during mining agreement negotiations. Article 55 of the Mining Code introduced the requirement that a portion of the tax revenues from mining operations would be transferred to an equalization fund to support local communities. This disposition came into force in 2009 with Decree n°2009-1334, which established that 20 per cent of the revenues derived from mining royalties and fees be transferred to a common national fund created to support social infrastructure and equipment for municipalities within the mining areas.

In addition to the social dispositions found in the Mining Code and related decrees, the **Model Mining Convention (2012)**—which regulates the contractual relationships between the state and large mining companies—includes a number of social dispositions (Article 7). In particular, permit holders are encouraged to prioritize local hiring and facilitate knowledge transfer through the implementation of training programs. Companies are also expected to collaborate with local authorities to promote and improve social infrastructure within their concession area.



STRENGTHS

• There are established mechanisms for the transfer of mining revenues to municipalities in regions where mining operations are established. An equalization fund designed to channel 20 per cent of mining royalties and fees into local communities was created by decree in 2009. The terms and conditions of this fund were recently modified through Decree n°2015-1879, which establishes that 20 per cent of the funds be distributed to mine-adjacent municipalities and 80 per cent be allocated to municipalities in the broader administrative region where the mining project is located.

TABLE 3: BENEFICIARIES OF THE EQUALIZATION FUND

RÉPARTITION DU FONDS DE PÉRÉQUATION (%)	BÉNÉFICIAIRES
20%	Local communities where the mining project will be located
80%	Other communities within the administrative region where the project is located

- Convention agreements with large mining operations include the provision of mining social funds. These contracts, negotiated between the permit holders and the state, set out the percentage of annual profits (usually in the order of 3 to 5 per cent) that the permit holder will need to invest in social programs in the affected communities. The percentage of annual profits that the company contributes to the social fund is open to negotiation during the life of the permit, as with other terms and conditions in these agreements.
- There are positive examples of collaboration between permit holders and local authorities for aligning social investments with local and regional needs. Permit holders operating large mines have worked in collaboration with regional and local institutions and organizations (for example, regional development agencies) to promote socioeconomic development. Typically as part of their social programs, mining companies will fund the construction of health and educational infrastructure (i.e., clinics, schools). It should be noted that the construction of these facilities follows rules established by the regional or national authorities (e.g., definition of catchment areas for health and education services) and their administration and staffing is the responsibility of the state. In the Tambacounda region, for example, the state and some of the mining companies operating in the area have created a social fund to improve the living conditions of the local population, have developed a planning document called the Mining Social Program (Diawara, n.d.), and some large companies have taken the initiative to collaborate in the development of a regional development strategy (rePlan, 2014).
- The government and private sector stakeholders recognize education and the development of local capacities as priorities. The Mining Policy (2003) recognizes the need for well-trained human resources, both in technical and administrative capacities, as one of the key requirements to support the mining sector. At the national level, there are higher education institutions (such as the Institut de sciences de la terre [IST] at Cheikh Anta Diop University) that offer programs on geology and mining, and plans are in place to expand these institutions. Mining companies offer on-the-job training for positions requiring lower qualification, such as drivers, train conductors and other forms of technical support. Companies also invest in primary education in nearby villages through their social programs as part of their convention obligations. Investments are typically limited to building schools and other educational infrastructure; once complete, the Ministry of Education assumes control.
- In compliance with Article 91 of the Mining Code, all permit holders are required to develop health and safety protocols in line with national laws. These protocols need to be approved by the Ministry (Decree 2004-647). Management of occupational health and safety at mine sites and quarries is the responsibility of an on-site technical director or manager, who is required to report on these issues to the DMG, which in turn notifies the relevant administrative authority



and the inspector of labour and social security for the particular territorial jurisdiction. Decree 2004-647 includes dispositions on the requirement for the use of protective equipment (Article 97) by all workers at mining sites and quarries and the need to take specific measures to protect workers from exposure to dust, radiation and polluted waters (Article 98), depending on the resources being exploited and the wastes generated.

• Impacts on community health, and specifically on vulnerable groups such as children and women (Ministerial Order n° 9471 MJEHP – DEEC), need to be identified during the ESIA process and the required mitigation measures need to be incorporated in environmental and social management plans (or PGES: Programme de Gestion Environnementale et Sociale).

WEAKNESSES

- To date, no funding from the national equalization fund established by Decree n° 2009-1334 has been transferred to local communities. The contents and application of the fund have also not been clearly communicated to affected communities.
- Engagement of local communities in defining social investment needs is limited. The lack of organization at the local level often results in reduced engagement of local authorities and communities in the management and implementation of social investments. Stakeholders noted that there is a need for better coordination between mining companies, local authorities and communities.
- Despite training and hiring initiatives by mining companies, the creation of local jobs and business opportunities remains minimal. A 2013 study on the gold sector in West Africa found that the sector's contribution to local and national economies among UEMOA member states is limited. Few direct jobs are created due to the fact that the sector is capital- rather than labour-intensive. With limited local capacities, management positions at mining projects tend to be filled in by foreign professionals, while many in non-skilled jobs are faced with temporary positions. This situation, commonly found in projects in extractive industries, requires effective engagement of the various stakeholders and careful management of local communities' expectations.
- Deficiencies in the impact assessment process compromise the effective participation of local communities. Civil society stakeholders reported problems in the community consultation process during the preparation of environmental and social impact assessment (ESIAs) studies, including insufficient notice for public reviews of ESIAs and the dissemination of documents and materials solely in French and not local languages. The mitigation of mining impacts and the development of social investment programs are not always aligned with the needs of the communities or their development plans due to shortcomings in the consultation and engagement process.
- Working conditions in the informal and artisanal gold sector present a number of challenges to health and human rights. Child labour remains widespread, and women and children—typically tasked with the transport and cleaning of the ore—are exposed to mercury (ONUDI, 2009). Implementing and enforcing laws in the region of Kédougou (where most informal gold exploitation takes place) is difficult due in part to accessibility challenges and a highly mobile population (see Pillar 6).

ENVIRONMENTAL MANAGEMENT

This 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 legal framework for environmental management in the mining sector in Senegal primarily consists of the following:

- The Environmental Code 2001 (Law n°2001-01) and its Decree 2001-282
- The Mining Code 2003
- The Water Code 1981 (Law n° 81-13)
- The Forestry Code 1998 (Law n° 98-03)
- Environmental dispositions (Article 8) in the Model Mining Convention
- Various Ministerial Orders and Technical Norms apply to projects in the mining sector:
 - Ministerial Order no 9471 MJEHP-DEEC on the Terms of Reference for environmental assessments
 - ^o Ministerial Order n^{o 9472} MJEHP-DEEC on the content of the environmental impact studies
 - ^o Technical Norm NS ^{o5}-^{o61} on the disposal of wastewater

Senegal's **Environmental Code** (2001) introduced the requirement for conducting environmental and social impact assessments (ESIAs) for all policies, plans, programs and projects that could have an impact on the environment. Three categories exist: strategic environmental assessment (for policies and plans), environmental impact assessment (for Category 1 projects considered to have significant potential significant impacts) and environmental audits (for Category 2 projects considered to have minor impacts). Large-scale mining projects fall under Category 1, requiring a full ESIA.

STRENGTHS

- Applicants for exploitation permits, mining concessions and small-scale mining permits are required to conduct—at their cost—an environmental impact assessment as part of the permit application process. Both the Environmental Code and the Mining Code (Article 83) make the environmental assessment process obligatory for mining developments. In projects in the exploratory phase, the new code requires that a simplified environmental assessment be conducted before obtaining the exploration permit. Independent practitioners registered with the Ministry of Environment and Sustainable Development conduct ESIAs, which must include an assessment of the measures proposed for the disposal of wastewater and solid waste, as well as measures for emissions reductions (Ministerial Order n° 9471 MJEHP DEEC). In addition, mining operations must comply with water quality standards.
- A technical committee reviews submitted ESIAs prior to the granting of a mining permit. Both the Ministry of Industry and Mines and the Ministry of Environment and Sustainable Development are among the stakeholders represented in this committee. The technical committee must approve the ESIA for the applicant to be granted their permit.
- Environmental and social management plan (ESMP, or PGES in French) must be developed as part of the ESIA process. The PGES is the main environmental and social management tool for mining projects, and must be implemented during construction of the mine, during its operations and during and following its closure. ESIAs are also required to include in the final report an analysis of risks, possible security measures and an emergency plan—these dispositions apply to all sectors, with no specific requirements for the mining sector.



- Mining operations, including exploration, are prohibited in protected areas. When exploration
 or exploitation is proposed for a classified forest or a forest area, a special permit must be
 granted (by the Minister of Environment and Sustainable Development in the case of classified
 forests and by the president of the regional council for non-classified forests) prior to the
 applicant obtaining the mining permit. As with environmental management plans, biodiversity
 management plans are required as part of the ESIA.
- A number of other national and international laws, policies and conventions—on water, forestry, biodiversity—are in place and will complement environmental clauses and requirements in mining law and policy. Of particular note is Senegal's recent ratification of the Minamata Convention on Mercury.

WEAKNESSES

- Institutional capacity for environmental audit and monitoring of mining operations is limited. Environmental oversight is conducted through technical committees at both the regional and national levels, but human and material resources remain limited and the level of oversight is weak. For example, the Ministry of Environment laboratory authorized to conduct environmental testing operates with funding from the fees paid by the mining companies. The lab was closed at the time of the research due to a lack of funding, as mining companies had neglected to pay their bills. While the Ministry of Industry and Mines also has a laboratory in Dakar, its funding is limited and it is underused by other government stakeholders. Many of the large mining companies in Senegal have sophisticated testing facilities on site; however, independent tests on water and soil cannot be conducted within these laboratories.
- The lack of enforcement capacity contributes to significant environmental degradation and pollution problems in the areas of artisanal and informal gold exploitation. These areas are affected by deforestation and the pollution of water and soil due to the chemicals used for the extraction of gold. High mercury levels have been reported in people, shellfish and fish in communities of Kédougou (Niane et al., 2015). Since these mining sites are not subject to any formal environmental management or rehabilitation, the contamination of abandoned sites can pose a long-term risk for the health of local communities. Environmental capacities in these communities remain low; ASM miners generally choose the cheapest and easiest means of processing gold—which typically involves the use of mercury—at the expense of health and environmental concerns.
- An emergency preparedness program is not required by law and is prepared at the discretion of the mining entity. Some companies include such programs in their risk evaluations and impact identification and mitigation processes, but this is not the norm for the sector. Related to this, companies do not have to consider climate change impacts, including the frequency or intensity of extreme storms (such as cyclones), flooding, drought or extreme heat waves, as potential environmental risks. Given the large amount of water consumed by mining operations, the incidence of drought in Senegal, and the increasingly variable amount, distribution and timing of rainfall, it would be highly beneficial to screen for climate risks and potential conflicts with other water users as part of the impact assessment process.
- In practice, (illegal) mining activity occurs in protected areas. The boundaries of protected areas are sometimes not clearly defined—particularly in remote areas that are difficult to access—and in regions like Kédougou, mineral resources can be located in proximity to areas of high biodiversity value. Encroachment in these areas is difficult to control, and is sometimes not recognized as a biodiversity threat or a factor of environmental degradation (UICN, 2011).
- The potential impacts of mining beyond the mine site are generally not considered in ESIAs. A recent study by Niane et al. (2014) suggested that the spatial distribution of mercury concentration in sediments of the Gambia River in Kédougou reveals a very local contamination and a limited downstream dispersion of the contaminant, pointing to a low risk of transboundary effects in downstream Gambia. However, in general these risks are poorly understood and are not considered in the environmental impact assessment of a project.



- There are no best practice sectoral guidelines on waste, tailings and effluents management. Proponents need to include mitigation measures in their ESIAs and associated management plans, but there is no general guide on best practices to control effluents and wastes. Given the specific and potentially high risks of some sectors of the industry (i.e., gold extraction and processing) the limited level of institutional oversight, and the different level of environmental management capacity found among permit holders (i.e., large mining operations, compared to medium to small-size projects, will typically have the resources and capacities required to manage environmental issues effectively), it could be beneficial to develop some regulations and guidance on environmental management in accordance with international standards and practice.
- The Plan Sénégal Émergent foresees significant investments in mining and related
 infrastructure, such as railway networks, that will extend across a large portion of the country.
 Individual projects will need to comply with the national ESIA requirements. However, given the
 large scope of the mining projects and the potential for significant environmental impacts, a
 sector-wide strategic environmental assessment would be more adequate.

POST-MINING TRANSITION

To date, only a small number of mining operations in Senegal have reached the post-mining phase, and these are mostly quarries located near the country's big cities (e.g., old quarry sites in the suburbs of Dakar).

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 Environmental Code (law n°2001-01) and its decree n°2001-282
- The Mining Code 2003 (Articles 82 and 84)
- Decree 2009-1335 on Rehabilitation Funds

STRENGTHS

- The Mining Code includes the requirement for the rehabilitation of mining sites. As established in Article 82, all permit holders must undertake site rehabilitation at the expiration of the mining title, except in those areas that continue to be covered by a mining exploitation title. One of the innovations of the new Mining Code (currently under review) will be the extension of the requirement for a rehabilitation plan to the exploration phase, should the mine entity not continue with exploitation.
- Additionally, and as part of the ESIA process, the 2001 Environmental Code (Article L51) requires an analysis of the initial state of the site and the development of measures to eliminate, reduce or compensate for adverse impacts of the activity before, during and after the completion of the project. The scope of the rehabilitation plan is defined in the terms of reference issued for the environmental impact assessment. If there are any changes to the exploitation or the project design, the rehabilitation plan needs to be revised. Implementation of the rehabilitation plan is followed-up by the regional delegations of the Ministry of Industry and Mines.



- Financial provisions in the form of a rehabilitation fund are required under the current regulatory framework. The costs of rehabilitation measures need to be measured and included in the ESIA as part of the rehabilitation plan. Decree 2009-1335 requires permit holders to open and maintain an account in a commercial Senegalese bank and transfer annually to this fund a sum equivalent to the annual rehabilitation costs. The permit holder and representatives of the Ministry of Industry and Mines jointly manage this fund. The validity of this fund covers the exploitation phase and the estimated duration of the rehabilitation work. According to the Decree 2009-1335, contributions to the rehabilitation fund are done throughout the exploitation of the project via deductions from operating revenues.
- There is a requirement to consult communities on closure plans during the ESIA process, and
 there are some examples of rehabilitation plans being developed in accordance with local
 communities' needs and supporting alternative livelihoods. Large mining operations usually
 have more resources to engage with communities.

WEAKNESSES

- Enforcement and monitoring of mine closure plans are weak. Rehabilitation and closure plans are required, as is the establishment of a closure fund, but having the fund in place is not a prerequisite to getting permit approval. Although legislation is in place, it is often unclear whether mining companies have established funds to cover closure and rehabilitation. Stakeholders expressed concern about the potential implications of a decrease in mineral prices on the implementation of rehabilitation plans; it was believed that unfavourable economic conditions could compromise socially and environmentally responsible mine closure.
- The quality and potential level of implementation of rehabilitation plans is highly variable. Large mining developments tend to have more resources and capacities to implement these plans. For example, progressive rehabilitation is underway in GCO's heavy minerals mine outside of Thiès on those portions of the concession that have already been mined; the ability of smaller operations to undertake progressive rehabilitation is limited, and in many artisanal or small mine operations the site is simply abandoned.
- Rehabilitation costs are frequently underestimated. Companies are required to budget for rehabilitation activities as part of the overall costs of the environmental and social management plan (PGES). While the independent consultants conducting the ESIA develop these cost estimates (and costs are ultimately approved by the companies submitting the assessment), stakeholders from government report that these costs tend to be underestimated. Closure plans and costs are validated through the ESIA process at the beginning of the project and permitting process.
- There is no legislation in place regulating abandoned mines. Although not many mines have reached the closure phase in Senegal, there are a number of examples of quarries that have not been rehabilitated after mining operations have ceased. To date, there are no specific provisions in the regulatory framework to address the closure and transition phases of mines governed by legislation preceding the current Mining Code (2003). The government does not take a leadership role in the rehabilitation of these quarries (or abandoned artisanal and small-scale mines, for that matter); typically it is up to the communities themselves to restore the sites

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.

ASM IN SENEGAL

Artisanal and small-scale mining in Senegal is concentrated in the southeast of the country, in the Kédougou region. Here, miners are primarily focused on alluvial and near-surface gold mining, with mines not going beyond 15 metres in depth. Men, women and children are all widely involved in ASM in the region, with women and children typically most exposed to the adverse health impacts of mercury through their role in processing the gold once it has been mined. It is difficult to know how many individuals are involved in ASM gold mining in the region, given its porous borders and the fact that many mine gold to supplement other incomes, however one 2007 estimate put the number of ASM miners at approximately 10,000 (Savornin, Niang, & Diouf, 2007).

In recent years, there has been a significant increase in ASM activities in the region, with consequent negative social and environmental impacts. While mining in Kédougou was once a way of supplementing farming incomes, it has become more of an economic necessity with the arrival of industrial mining companies and the subsequent reduced access for local communities to arable lands now under mining permits (Daffé, 2012). The problems stemming from ASM have a number of root causes, including: the lack of alternative livelihood options for the local population; the continued informal nature of ASM; a lack of environmental training among miners; poor exploitation techniques and the continued widespread use of mercury; and porous borders and the continuous arrival of ASM miners from neighbouring countries (Interministerial Council, 2012). Enforcement of laws and policies—particularly around labour and environmental concerns—is often difficult, in part due to the inaccessibility of the region (Daffé, 2012). The simultaneous increase in ASM and large-scale mining in the southeast has led to significant conflicts in recent years, with mining companies and ASM miners often clashing over the mineral access, environmental and social impacts, and health and safety concerns (Interministerial Council, 2012).

The government has tried to address these challenges through the introduction of specific legislation aimed at formalizing the ASM sector. In a Government Order on artisanal and small-scale gold mining released on June 14 2013, the state announced three key innovations required of ASM miners moving forward. First, ASM miners must hold authorization cards granting them the right to mine gold in Senegal. These cards are valid for one year (renewable), are granted to registered Senegalese citizens, and are subject to a yearly fee, which is then invested back into the community. Second, ASM mining activity can only take place in designated ASM corridors. The holder of the mining permit, typically a large-scale mining company, designates these corridors, and authorization cards are assigned to particular corridors, outside of which the cardholder cannot operate. Third, in a further effort to stem the illegal trade in artisanally mined gold, the government has begun to establish official purchasing counters throughout Kédougou for artisanally mined gold. Authorized ASM miners must sell their gold at these counters.

The Government of Senegal recognizes the important role that ASM gold mining plays in local livelihoods and development, and has made strengthening the ASM sector a strategic pillar of the Plan Sénégal Émergent (PSE). Within this pillar, a pilot project will be launched with the 10-year goal of transforming ASM activities into formal social and economic development opportunities. The pilot



project will aim to formalize between 5,000 and 10,000 miners in the sector, and invest in training, regulation and infrastructure. In addition to the new legislative initiatives that introduced ASM zones, authorization cards and purchasing counters, the government plans to further secure gold panning areas through the deployment of a special brigade to secure such zones in Kédougou, and will impose sanctions on those miners caught exploiting deposits found outside of demarcated ASM zones (BOS, 2016).

KEY LAWS AND POLICIES

- The Mining Code, 2003
- The Mining Policy, 2003
- Order n°09249/MEM/DMG from14 June 2013 on the organization of artisanal gold mining activities
- Order n°02472/MIM/DMG from 10 February 2014 on the definition of ASGM zones in the regions of Tambacounda and Kédougou
- Interministerial order n°09931/MIM/MEF/MCESI from 18 June 2014 establishing the modalities or opening and operating purchasing counters for precious metals and stones

STRENGTHS

- The Government of Senegal continues to make efforts to formalize ASM operations. ASM is included in the Mining Code and Mining Policy, and Management of the sector falls under the DCSOM directorate within the Ministry, with the support of the Ministry's regional offices (particularly the office in Kédougou). Exploitation permits are available for artisanal and small-scale miners, with incentives and tax exemptions attached to these authorizations. Recent initiatives have aimed to further the legislative and economic formalization of the sector, through the establishment of authorization cards for ASM miners, the demarcation of ASM corridors for mining activities and the creation of purchasing counters for artisanally mined gold. The new Mining Code will include a regulatory framework for ASM activities, including a legal statute for these activities. Finally, formalizing ASM is included as a key pillar of the mining portion of the PSE.
- Organizations and associations of ASM miners have been established throughout Kédougou.

 This gives those miners operating in the sector more political voice, facilitates their interactions with large mines and allows for more targeted training programs to be undertaken.
- Conflicts are decreasing between ASM miners and large-scale mining operations, according
 to both ASM organizations and company representatives. Efforts have been made to increase
 coordination between mining companies and ASM miners through the establishment of ASM
 mining zones.
- Training programs with miners have been undertaken to reduce the environmental and social impacts of ASM. Direct support for capacity building has come from programs such as PASMI and from non-governmental organizations like the Blacksmith Institute. These types of initiatives are further supported by Senegal's recent ratification of the Minamata Convention, which commits Senegal to protect its population and its environment from the adverse effects of mercury.
- The government is attempting, through the purchasing counters program, to increase the transparency and formalization of the collection and management of ASM revenues. Six counters have been established in Kédougou; authorization cardholders must sell their production through these official channels.
- Authorization cardholders commit to a set of obligations. These include selling their production
 at government purchasing counters, respecting national norms around public health, workplace
 safety, and environmental protection and following existing ASM regulations. The government is



- in turn committed to providing technical assistance and training to ASM miners on workplace health and safety, environmental protection, research on the exploitation of gold, and understanding the formalization process.
- ASM is promoted in rural development and job creation policies through the PSE, and the
 Mining Policy. ASM is recognized as a legitimate economic activity that plays an important
 economic role in rural areas, though complementary alternative livelihoods are not being
 created and implemented quickly enough (and even if they were, the porous border would limit
 their efficacy).

WEAKNESSES

- The ASM sector remains overwhelmingly informal. Changes to ASM law—while positive steps toward formalizing the sector—remain new, and their adoption and impact cannot yet be measured. Most ASM miners in Kédougou operate informally, and there is insufficient data on the proportion of ASM miners operating with authorization cards or permits. In stakeholder consultations, artisanal miners also made it known that, as they see it, mining companies only establish ASM corridors in the areas of their concession that have minimal gold; thus the areas to which the activities of cardholders are restricted are seen as having very low potential for ASM. While there is a dedicated team within DCSOM and the regional offices that deals with ASM, human and financial resources for implementation and enforcement are limited.
- There is a need to increase the mobility and reach of purchasing counters to compete with traditional informal buyers who operate across the southeast (i.e., increase appropriateness for local context). It will be very important to increase the use of these counters to generate funding that can be reinvested locally in—for example—health and education programs, and environmental rehabilitation. Efforts to date at exploring fair trade standards and certifications schemes—mercury-free gold, for example—remain limited to small, independent projects.
- Despite efforts to impose a degree of formalization on Senegalese ASM miners, migrant populations from neighbouring countries continue to arrive and to mine informally, outside of established corridors and using inexpensive techniques that are destructive to the local environment. The migrants are able to enter into Senegal due to porous borders and regional WAEMU labour laws; once in Senegal, they tend to operate outside of demarcated ASM zones and without authorization cards. This creates tensions with card-holding Senegalese ASM miners, who are consigned to official corridors that are often seen as offering insufficient mining opportunities but who see foreign miners travelling into the region to mine with relative impunity across and outside of the designated corridors. In response, many locals continue to mine illegally, outside of the corridor and authorization card system.
- The use of mercury in gold processing remains widespread, and miners use it without adequate protection. Mercury remains a cheap and easy way of processing artisanal gold in Senegal, and so competing technologies have not yet been adopted. Women and children are the most directly affected: they use mercury in the cleaning of gold, with the substance coming into direct contact with their skin. While national legislation exists on workplace health and safety, it does not apply to individuals working in ASM, particularly illegal miners. With little or no access to basic health services, the burden of dealing with these health risks falls on communities and families. Beyond individual exposure, mercury use in the region threatens water resources, with potential transboundary impacts. In general, environmental and social training programs targeting ASM miners remain largely project-based, rather than sustainable programs driven by the national government.
- Child labour remains widespread in the region, despite national and international legislation
 protecting children from hard labour. Existing legislation is difficult to monitor and enforce
 in Kédougou; the region is difficult to access, and many of the children working in the sector
 are from across international borders. Children also play a particular role in the processing of



ASM gold, so removing them from ASM operations would create a gap in production that ASM miners are unlikely to endorse.

- Women's health is compromised through ASM activities. As with children, women traditionally play a specific role in ASM gold processing, contributing to the cleaning of mined materials and in so doing are frequently directly exposed to mercury. Efforts to address these health (and subsequent social) impacts are limited, and usually project-based.
- Local perceptions that the interests of large-scale operations are prioritized over local livelihoods and rights generate tensions between companies and communities. Community representatives noted that the transfer of lands that have traditionally been farmed to mining concessions has increased food insecurity in the region and resulted in a deterioration of agricultural skills among the younger population.
- The government generates minimal revenues from ASM sector. With few taxes, fees and royalties coming out of the ASM sector, very little is available to reinvest in local governance and environmental protection.
- There is very little initiative on improving savings in the ASM sector, establishing acceptable
 forms of financing and encouraging responsible investment. ASM mining remains economically
 informal and ad hoc. There is no reported capacity building among miners on financial
 management. Anecdotally, it was noted that many young miners buy motorcycles with their
 earnings, which in turn encourages other young people in the region to give up on schooling
 and turn to mining.



ANALYSIS OF STRENGTHS AND WEAKNESSES

The Government of Senegal's request for the IGF to conduct this assessment of their mining policies and laws reflects their openness to better understanding the strengths, weaknesses and gaps in their current legislation, and to identify how the country's mining sector might better contribute to Senegal's sustainable development. The standards laid out in the framework remain international best practices; few, if any, governments would satisfy all of the criteria listed among the MPF's six thematic areas. The timing of this review is fortuitous; it is hoped that the findings outlined in this report might contribute to the ongoing revisions of the Mining Code and the development of the Mining Policy.

Overall, the MPF assessment team found Senegal's existing mining laws, policies and regulations to be of medium strength with regard to their potential to optimize the contribution of the mining sector to the country's sustainable development, across all thematic areas of the MPF. Many of the relevant laws and policies currently in place (as well as the key innovations contained in the new Mining Code) are often relatively strong, though a key challenge remains their effective implementation, monitoring and enforcement.

Senegal's existing legal and policy context is reasonably strong, and will likely be further strengthened through the upcoming revision of the Mining Code and development of the Mining Policy, judging from the key changes that were shared with the assessment team by the Ministry. The permitting system is clearly laid out in the legislation, with permits covering the various phases of the mining cycle and for the different types of mining conducted in the country (large-scale, small-scale and artisanal). Permit holder confusion as to the difference between mining concessions and mining permits in the 2003 Code have been addressed through the elimination of mining concessions from the new legislation. In addition, the establishment of new instruments for formalizing the artisanal and small-scale mining sector (through mining authorization cards, ASM corridors, and purchasing counters) represents a positive move toward bringing the sector into the formal economy and legal regime. One area of weakness is the accessibility and coverage of Senegal's geological information; this data is largely only available in physical form in Ministry offices. Ideally this data would be broadly accessible to both experts and non-experts through an online database, and would cover all known and predicted resources across the entire country. The weakness can be tied to resource constraints, as generating this level of data—and establishing and maintaining public access to it—is expensive. Finally, while public consultations are required during the permit application and ESIA process, communities and civil society report that for large-scale mining projects these consultations are not often carried out to their satisfaction.



With regards to the MPF's second pillar, financial benefit optimization, Senegal generates revenues from the mining sector through a mix of taxes, royalties, fees and joint ownership arrangements. The simplicity of the tax regime applied to the sector has increased with the movement of tax considerations from the Mining Code into the General Tax Code; however, a higher-than-usual number of tax exemptions in the old code—designed to increase the attractiveness of the sector to investors—have compromised the ability of the state to generate revenues from mining. Criticisms that existing tax exemptions and the old tax and royalty rates benefit companies rather than communities have started to be addressed in the new regime: exemptions are being reduced, and royalty rates and permit fees are increasing. Nevertheless, for communities it is often difficult to see visible, local development dividends coming out of state spending tied to mining revenues, as revenues are simply integrated into the national budget upon receipt, without clear and transparent distribution mechanisms for regional and local budgets. The Ministry's capacities for negotiating (and renegotiating) mining contracts are reasonably strong, and are tied to their use of a model mining agreement to standardize such discussions. Finally, Senegal's commitment to EITI compliance is a very positive step toward increased transparency and accountability in revenue management.

With regards to socioeconomic benefit optimization, the main mechanism for transferring support to mine-affected communities (outside of specific mining conventions) is the national equalization fund, created by the Decree n°2009-1334. This decree established that 20 per cent of collected royalties and fees must be transferred to a national fund for social investments at the community level. The transfer of revenues to this fund is applicable to all mining operations. To date, no money from this national equalization fund has been transferred to local communities, and no plans are in place to address how this transfer will be implemented.

For the fourth MPF thematic area, the overall regulatory framework for the environmental management of mining operations in Senegal is reasonably good. There are legal requirements for applicants for exploitation permits, mining concessions and small-scale mining permits to conduct environmental impact studies and develop environmental management plans prior to the granting of a mining permit (Article 23). However, there are limitations in the government's institutional capacity to monitor and audit the environmental performance of mining operations. In areas where artisanal and informal mining is practised, the level of institutional oversight and control are significantly lower, leading to ongoing problems of environmental degradation, mercury use and risks to biodiversity.

The 2003 Mining Code included the requirement that mining companies establish a rehabilitation fund, in a trusted public financial institution designated by the state, to cover the cost of restoring the mine sites and addressing the environmental impacts of operations. All exploitation permit holders operating in Senegal are required to offer financial assurance that they will be able to cover the costs of rehabilitation, costs which are estimated as part of the environmental impact assessment process. One innovation of the new Mining Code will be to extend this requirement to the exploration phase. Despite positive legislation, in practice the costs of rehabilitation are frequently underestimated, and institutional capacities to enforce mining closure plans are limited. For mining operations governed by legislation preceding the current Mining Code (2003), there are no systems in place to address their closure and post-mining transition.

Artisanal and small-scale mining is an important source of income and livelihoods for a significant portion of Senegalese population, particularly in the southeast of the country. Though the sector remains largely informal, recent efforts have aimed to legally and economically formalize these activities, which would help to: protect those working in the sector (particularly children and women); reduce conflicts between large-scale mining operations and ASM miners; increase environmental stewardship; and generate government revenues that could be reinvested in affected communities. Unfortunately, to date efforts have met with limited success; ASM miners are unhappy with the restrictive concessions in which they can mine, and the continued arrival and activities of migrant miners from neighbouring countries, operating outside of national laws, reduces local incentives for mpliance with ASM laws.



RECOMMENDATIONS

Mining's inclusion as a key pillar of the national development strategy (the PSE) further underscores the sector's importance to national development. Many of the weaknesses listed above result from resource constraints—both financial and human. The Ministry's revision of the Mining Code and development of the new Mining Policy will attempt to at least partially address these constraints by increasing the contribution of the sector to the national economy through increased royalty rates and reduced tax exemptions. With increased revenues, updated laws and policies, strengthened capacities and improved transparency through EITI, it is hoped that Senegal can further expand the contribution that the mining sector makes to its continued sustainable development.

Based on the findings of this assessment, there are a few areas in which Senegal's legal and policy frameworks could be strengthened to ensure that the sector's contribution to sustainable development is increased. These are outlined in the capacity-building themes identified below.

PRIORITY AREA 1: POST-MINING TRANSITION

Modern legal and policy frameworks involve a detailed mine closure plan, consistently require developers to provide the necessary financial assurance to implement mine closure plans, and ensure that mine closure plans are revisited and implemented in a progressive manner throughout the life of the mine. Key topics for capacity building in Senegal could include:

- Methods for incorporating stakeholder consultation in the development of mine closure objectives and plans.
- Good practice for estimating the costs of mine closure plans.
- · Implementing and enforcing rehabilitation plans.
- "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).
- The design and implementation of legislation on abandoned and orphaned mines.

PRIORITY AREA 2: SOCIOECONOMIC BENEFIT OPTIMIZATION

Legal and policy frameworks should promote sustainability to ensure that the benefits of mining contribute to long-term social and economic development, particularly in communities located near mining projects. Key topics that could be reinforced in this pillar include::

- · The management, transparency and implementation of the national equalization fund.
- Stakeholder engagement and integration of local needs in the planning and implementation of social investments derived from mining operations.



- Aligning local needs and annual socioeconomic development investments in mining conventions.
- Building capacities at the local level for the management and use of development funds.
- The management of conflicts and social risks.

PRIORITY AREA 3: ENVIRONMENTAL MANAGEMENT

Minimizing and managing the environmental impacts of mining operations is a critical part of optimizing the contribution of the mining sector to sustainable development. Key aspects that could be strengthened through capacity building include the following::

- Reinforcement of environmental monitoring capacities, including the oversight of operations and capacities to process and analyze water and soil samples.
- Integrating mine-specific guidance on waste (e.g., tailings) and water management (i.e., consumption and effluents) into environmental impact assessments.
- Integrating international best practices on environmental management (e.g., International Finance Corporation Performance Standards, ICMM's guidelines) into national norms and legislation, especially in the following areas:
 - ^o Water management
 - Tailings management
 - O Climate change adaptation and climate risk management
 - o Biodiversity
 - o Mine closure



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ANNEX: KEY STAKEHOLDERS

The Assessment Team met with the following key stakeholders while in Senegal:

GOVERNMENT

- • Ministry of Industry and Mines:
 - O Department of Mines and Geology
 - > Office of the Cadastre
 - O Department of Prospecting and Mine Promotion
 - > GeoLabs
 - O Department of Control and Monitoring of Mining Operations
 - O Head of Regional Service, Thiès
- Ministry of Environment and Sustainable Development
 - O Department of Environment and Classified Establishments
- Ministry of Economy, Finance and Planning
 - O Department of National Planning
- · Ministry in Charge of Monitoring the Plan Sénégal Émergent
 - Office of Monitoring the Plan Sénégal Émergent, Energy and Mines
- Extractives Industries Transparency Initiative (EITI) Senegal

PRIVATE SECTOR

- · Grand Côte Operations SA
- · Chamber of Mines
- GeoMin
- Corporate Social Responsibility Senegal

ACADEMIA

• Institut des Sciences de la Terre, Université Cheikh Anta Diop

CIVIL SOCIETY

- · Federation of Gold Panners of Kédougou
- · La Lumiere
- National Network for People Affected by Mining Operations
- Oxfam Senegal
- · Publish What You Pay Senegal
- Youth for Human Rights Network
- · Women in Mining Senegal

INTERNATIONAL ORGANIZATIONS

UNICEF



ANNEX: LIST OF LAWS AND POLICIES REVIEWED

LAWS

- The Constitution of the Republic of Senegal
- The Mining Code, Law 2003-36 of November 24 2003
- The General Tax Code, 2012
- · The Investment Code, 2004
- The Labour Code, 1997
- The Water Code, 1981
- The Forestry Code, 1998
- The Environment Code, 2001
- Water Discharge Norms, 2001

POLICIES AND STRATEGIES

- The Mining Policy, March 6 2003
- · National Strategy for the Management of Protected Areas in Senegal, 2011

DECREES

- Decree No. 2004-647 of May 17 2004 on establishing the modalities of implementing the Mining Code, law 2003-36 of November 24 2003
- Decree No. 2009-1334 on the creation and establishing the rates and modalities of an equalization fund to support local communities (and Decree No. 2015-1879 modifying Decree No. 2009-1334)
- Decree No. 2011-819 on Gender Equality
- Decree No. 2013-881 of June 20 2013 on the creation, organization and functioning of a national committee for the Extractives Industries Transparency Initiative (EITI)

ORDERS

- Order on the organization of artisanal gold mining activities, 14.06.2013
- Ministerial Order on the terms of reference for impact assessments, no9471 MJEHP-DEEC, 28.11.2001
- Ministerial Order on the environmental impact assessments reporting, no9472 MJEHP-DEEC, 28.11.2001
- $\bullet\,$ Order n°02472/MIM/DMG from 10 February 2014 on the definition of ASGM zones in the regions of Tambacounda and Kédougou
- Interministerial Order n°09931/MIM/MEF/MCESI from 18 June 2014 establishing the modalities or opening and operating purchasing counters for precious metals and stones

REGIONAL DECLARATIONS, PROTOCOLS AND POLICIES

- African Mining Vision
- ECOWAS Policy on the Development of Mineral Resources, 2012
- Additional Act A/SA 16/02/12 on the Adoption of the ECOWAS Policy on the Development of Mineral Resources



- Protocol A/P.1/5/79 of May 1979 on the Free Movement of People and Goods in the ECOWAS Region
- ECOWAS Directive C/DIR3/05/09 on Harmonizing Principles and Policies for the Mining Sector
- WAEMU Mining Code: Additional Act no01/2000 of 14 December 2000; Regulation no18/2003/CM/UEMOA of 23 December 2003

