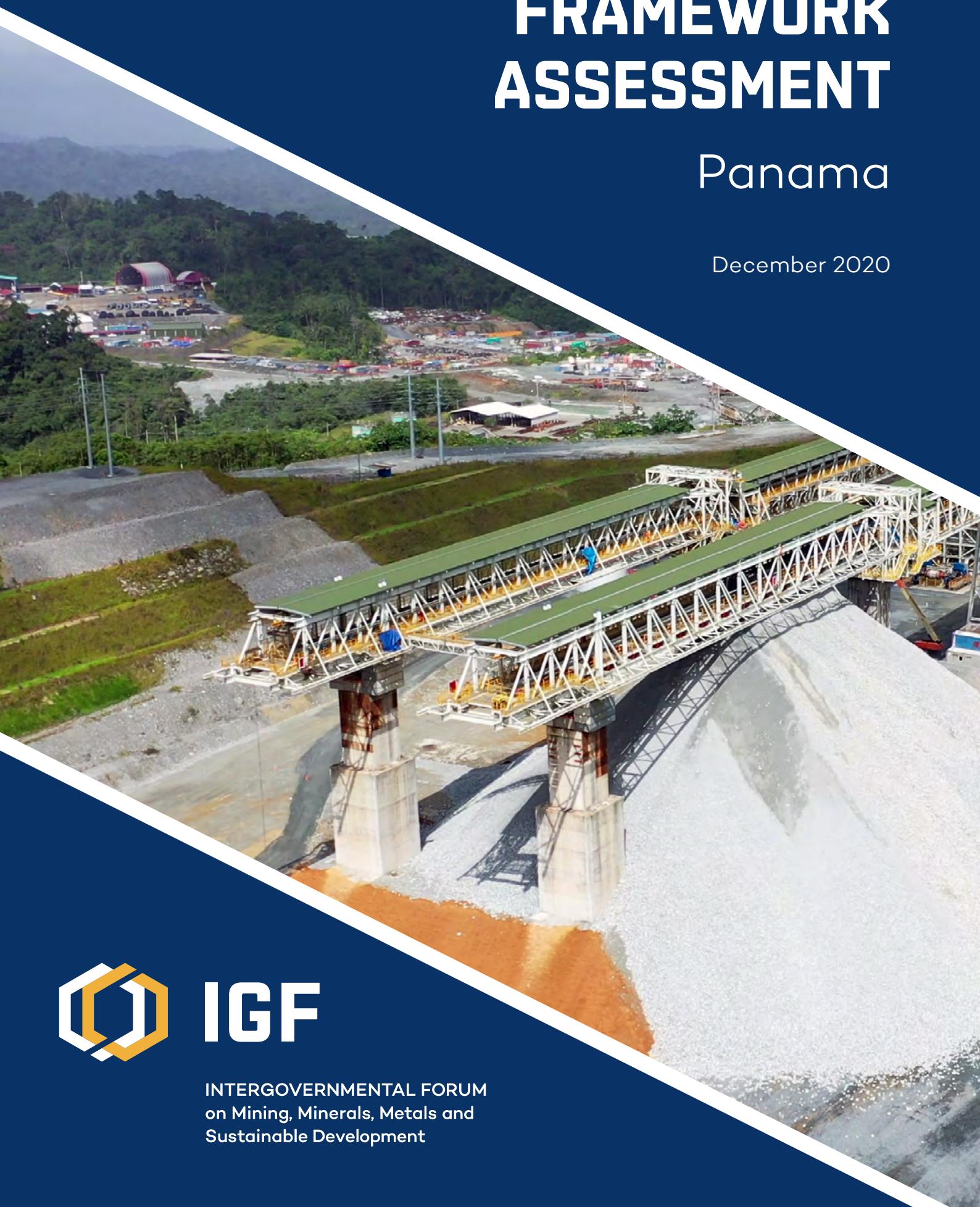


IGF MINING POLICY FRAMEWORK ASSESSMENT

Panama

December 2020



INTERGOVERNMENTAL FORUM
on Mining, Minerals, Metals and
Sustainable Development

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December 2020
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ABOUT THE MINING POLICY FRAMEWORK 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 to 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 through both desk- and field-based research involving diverse stakeholders. The assessment identifies key strengths 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 this assessment process's outcomes, the second phase of the process involves working with the participating government to develop a capacity-building and technical-assistance program aimed at addressing weaknesses and key gaps. These strengthened capacities and an increased understanding can help improve national legislation and policies in ways that enhance the mining sector's contribution to sustainable development.

This report presents the assessment for Panama to help 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 Panama, especially the Ministry of Trade and Industry team, including Professor Daniel Esquivel, Ana Méndez (Engineer), Jaime Pashales (Engineer), and Juan David Guizado (Engineer) for their invaluable help and support in conducting this assessment. We would also like to thank Francisco Gallegos for his final revision of this report.



EXECUTIVE SUMMARY

This report presents an assessment of the preparedness and capacity of Panama to implement the IGF Mining Policy Framework (MPF). Staff of the IGF Secretariat carried out the assessment between December 2019 and March 2020. The process included a thorough review of documentation, including key national and international laws and policies and a nine-day field visit to the country. At that time, the project team met with a wide range of stakeholders from government, civil society, international organizations, and the private sector. This assessment phase of the project concludes with this report.

The assessment team identified the following **key strengths** in Panama's mining law and policy framework:

- There is an awareness that mining must respect the environment. Among others, the Panamanian government understands the importance of biodiversity in its country, and this is reflected in the requirements of the environmental management instruments, environmental impact assessments (EIAs) and environmental audits.
- The legislation contains provisions for mining to contribute socioeconomic benefits, such as promoting the employment of Panamanian citizens for operations and training this workforce.
- The distribution of financial benefits has specific legally defined purposes for the development of communities neighbouring the project.
- Indigenous Peoples are able to decide whether or not to accept mining projects in their territories because, on the basis of the Constitution, Panamanian legislation gives them powers as autonomous governments, even though Republic law stipulates that the state owns mineral resources. Regardless of the type of territory, Indigenous Peoples' rights are also taken into account for the acceptance of mining projects.

In addition to the above, **key weaknesses** have been found in the implementation of the MPF. Panama should focus on the following priorities for improvement:

- Mining is expected to contribute 6% of GDP. However, without a mining vision or policy with a consistent mining development plan to give direction to governmental management of the sector, the presidential goals will be difficult to achieve. The government as a whole does not have a unanimous position on whether it wants Panama to be a mining country or not. This influences decisions on the granting of concessions and extensions that are de facto suspended and on the implementation of Supreme Court judgments.
- The legal framework is outdated. For example, the Mineral Resources Code needs to be modified to meet international standards and best practices. Similarly, there is a lack of mining-specific legislation and regulations on environment, safety, mine closure and post-closure, and ASM.
- Mining operations lack adequate oversight in the fields of the environment (water, solid waste, biodiversity, and emergency plans) and occupational health and safety.
- There is no mention of mine closures, post-closure, and financial guarantees, despite three cases of contentious closures in recent years.
- There is a lack of contractual or legal powers for tax and customs control in concessions. The distribution of taxes collected is not transparent.
- Despite having a small amount of illegal mining, compared to other countries, the government exercises no control over this sector. These illegal operations are prone to unacceptable practices such as child labour, illegal immigration, and adverse effects on the environment.


TABLE ES1. STRENGTHS AND WEAKNESSES OF EACH PILLAR

MPF THEME	LEVEL OF PROGRESS	STRENGTHS	WEAKNESSES
Legal and policy framework	LOW	<ul style="list-style-type: none"> • Public participation is incorporated in the EIA process. • Impact assessments integrate both environmental and social elements. Impacts and risks are described, as are their mitigation measures. Assessments describe social and environmental opportunities. • Permitting processes consider resettlement, issues related to Indigenous Peoples, and cultural heritage. 	<ul style="list-style-type: none"> • Geological information is deficient and requires better access. • The mining code is old and does not reflect best practices. • There is no policy for the development of the sector. • The permitting process does not take into account every phase in a mine's life cycle. • The information required of companies does not contain the details needed for informed decisions to be taken. • The permitting process is viewed as unstable, inconsistent, with little transparency and discretionary.
Financial benefit optimization	LOW	<ul style="list-style-type: none"> • The same taxation regime is used for other sectors, with specific deductions for the mining sector. • The distribution of financial benefits for community development is required by law. • Municipalities can directly collect their revenues. • The current staff of the National Directorate of Mineral Resources (DNRM) are geology and mining engineers with extensive experience in the mining sector. 	<ul style="list-style-type: none"> • Royalty and tax flows are neither transparent nor properly managed. • There is no optimization of tax revenues during periods of high prices while it does not minimize the risks of suspension or discontinuance of activities during periods of low prices. • National policy objectives are not taken into account when contracts are negotiated or mining concessions are allocated. There is no alignment with economic development strategies in other sectors. • Some municipalities support illegal mining by collecting taxes from companies that do not seek concessions. • The fixed-rate charge for non-metallics supports illegal extraction. • Currently, mining authorities lack the capacity to negotiate and interpret mining contracts. • Oversight of taxation on metallics and non-metallics is weak.



MPF THEME	LEVEL OF PROGRESS	STRENGTHS	WEAKNESSES
Socioeconomic benefit optimization	MEDIUM	<ul style="list-style-type: none"> • The EIA takes social considerations into account. The Cobre Panamá EIA contains 115 social commitments. • There is government–university interaction and protection for mining-related courses. • Concessionaires are legally obligated to train Panamanian staff. • There are local content efforts. • National employment issues are addressed in the law and contract laws, and their enforcement is sought. 	<ul style="list-style-type: none"> • There is no integration of the mining sector with national/provincial/municipal development plans. • Socioeconomic planning is limited. • There are not enough mining professionals to cover private and public demand. There is no plan, and developing one has not been made a priority. There are no mining engineers. • There is a lack of mine safety regulations. There is no proper inspection, monitoring of findings, or effective sanctions for safety breaches. • Mining law is very general on risk-management issues. • Employment obligations are not met in practice. • There is no regular public consultation. • There is no open dialogue with non-governmental organizations or Indigenous Peoples. • No efforts are made with respect to human rights, international standards, or gender programs for mining. • There is no development or consideration of gender policies.
Environmental management	LOW	<ul style="list-style-type: none"> • There are standards for the quality of water discharged into natural watercourses. • An environmental management plan is required, and the plan must be approved. • There is a requirement for biodiversity plans and a biodiversity report. • The EMP contains a contingency plan. • Having strategic impact studies for basins is a good precedent. 	<ul style="list-style-type: none"> • Land-use planning shows a lack of coordination between protected areas, mining concessions, and applications for collective land. • The legal framework does not prohibit mining projects in protected areas. • Panama has weak environmental enforcement and low penalties. • There is poor water monitoring due to a lack of inspection. • The government is not acting in a way that accords with the complexity and high risks associated with tailings and waste dumps. • Although the EMP does contain an emergency plan, there is no requirement to update it or coordinate it with communities or local government.



MPF THEME	LEVEL OF PROGRESS	STRENGTHS	WEAKNESSES
Post-mining transition	LOW	<ul style="list-style-type: none"> There is incipient leadership with respect to abandoned mines. 	<ul style="list-style-type: none"> There is no specific regulatory framework. There is no institutional capacity to monitor plans for closure and the post-closure transition. The quality of closure plans that is required is inadequate. The guarantee required may not be sufficient for the project. There is no requirement to use external experts. The government provides no proper leadership for abandoned mines or preparation for untimely closures.
Artisanal and small-scale mining	LOW	<ul style="list-style-type: none"> There is very little ASM in Panama, and mercury is rarely used. The Public Prosecutions Office is taking the lead on illegal mining. Panama approved the Minamata Convention on Mercury. 	<ul style="list-style-type: none"> There is no specific regulation or categorization of ASM. There are no plans to formalize, manage, or oversee informal operations. There is no control over illegal activities conducted as part of ASM. There is no training by the government on environmental and social issues in relation to ASM, and there are no occupational health and safety programs.



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ACRONYMS

AIAMP	Ibero-American Association of Public Prosecutors' Illegal Mining Network
ASM	artisanal and small-scale mining
CAMIPA	Mining Chamber of Panama
DGNTI	Direktorate-General of Standards and Industrial Technology
DNRM	National Directorate of Mineral Resources
CIA	Central Intelligence Agency
DGI	General Tax Directorate
DGNTI	Direktorate-General of Standards and Industrial Technology
EIA	environmental impact assessment
EITI	Extractive Industries Transparency Initiative
EMP	environmental management plan
GDP	gross domestic product
GNI	gross national income
HDI	Human Development Index
ICMM	International Council on Mining and Metals
IGF	Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development
IISD	International Institute for Sustainable Development
MiAmbiente	Ministry of the Environment
MICI	Ministry of Trade and Industry
MPF	Mining Policy Framework
NGO	non-governmental organization
PAB	Panamanian Balboa
SINAP	National System of Protected Areas
UNDP	United Nations Development Programme



1.0 INTRODUCTION

The Panamanian mining sector is small and under development, with one large-scale metallic minerals operation, various medium- and small-scale non-metallic minerals operations, and incipient illegal mining compared to other countries in the region. The government is deciding whether to become a mining country by approving new large-scale operations and attracting new investments or to maintain a small sector with some larger-scale exceptions.

This assessment report presents the context of the development of Panama's mining and legal framework. It also focuses on key policy and legislative strengths and weaknesses, using the thematic areas of the Mining Policy Framework (MPF) as a reference.

The Secretariat of the Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development (IGF) carried out an assessment from 2019 to 2020 using the following methodology:

- Research: a review of laws, policies, regulations, and contracts governing the national mining sector, as well as relevant literature on the sector (December 2019 to February 2020).
- A visit to Panama City and interviews with stakeholders and relevant parties from the government, civil society, and the private sector (December 2019).
- Field visits to: (i) the Cobre Panamá large-scale project and Agregados y Minerales S.A. quarry (December 2019) and (ii) the Cerro Quema project in the Municipality of Tonosí, Town of Río Quema (January 2020).
- Writing of this report: January 2020 to March 2020.
- Final assessment report. September 2020.



2.0 PANAMA: THE NATIONAL CONTEXT

The Republic of Panama is a Central American country bordered to the north by the Caribbean Sea, to the south by the Pacific Ocean, to the east by Colombia, and to the west by Costa Rica. It is located in a strategic position for international trade due to the Panama Canal linking the Atlantic Ocean with the Pacific Ocean via the Caribbean Sea. It has island territories in the form of the archipelago of the San Blas Islands, the archipelago of Las Perlas, and 1,518 individual islands. It is the second-largest country in the Central American isthmus. Its capital is Panama City, and it is divided territorially into 10 provinces and three Indigenous regions (known in Spanish as *comarcas*).

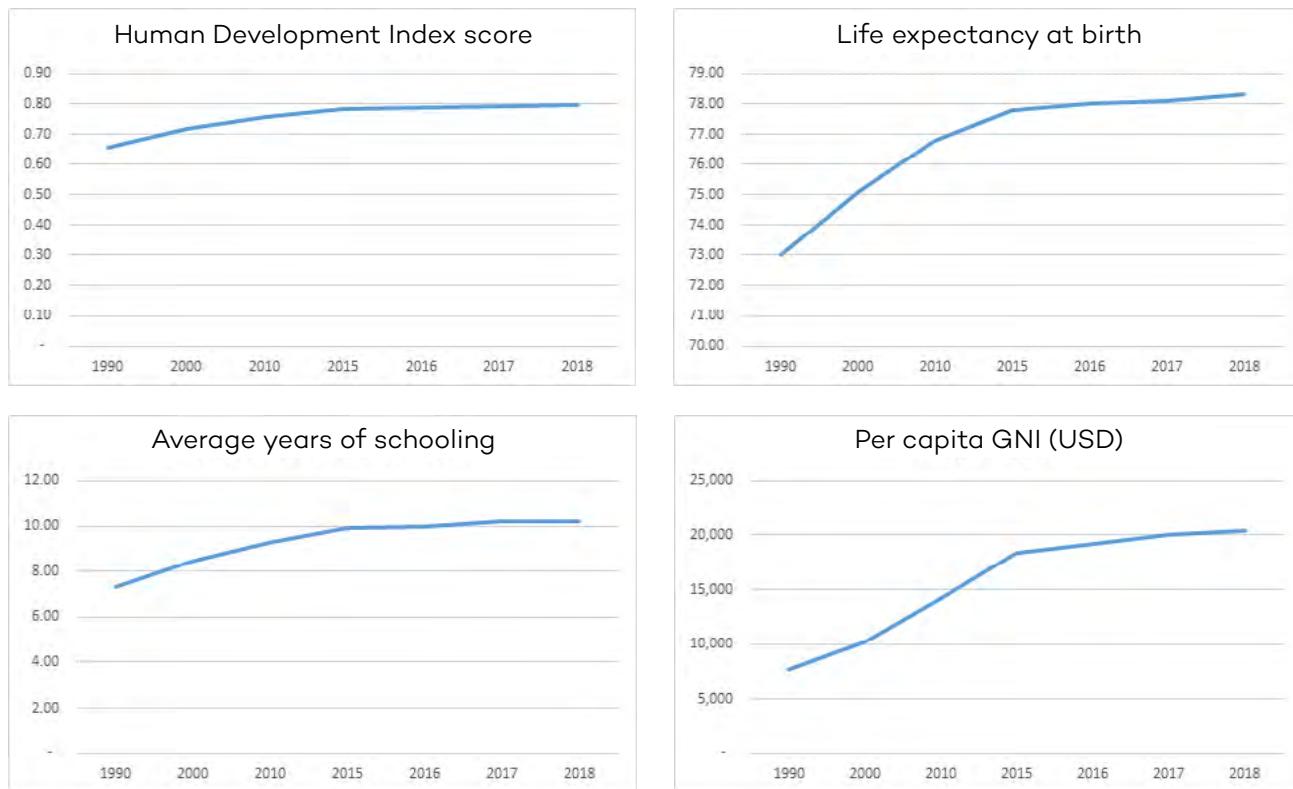
The current population of Panama is approximately 4.1 million (United Nations Development Programme [UNDP], 2020). Its multiple ethnic groups are concentrated into five population groups: Mestizo (about 65% of the population), Indigenous Peoples (Ngäbe [7.6%], Kuna [2.4%], Emberá [0.9%], Buglé [0.8%], other unspecified [0.6%]), Black or of African descent (9.2%), White (6.7%) (Central Intelligence Agency [CIA], 2020), and others (6.8%). The official language is Spanish; other non-official languages include Indigenous languages, English-Panamanian Creole, English, Chinese, Arabic, French Creole, and others. Many Panamanians are bilingual (CIA, 2020).

According to the UNDP (2019), Panama is categorized as having high human development, ranking 67 out of 189 countries in the latest Human Development Index (HDI). This puts Panama at the highest level of development among Central American countries. Life expectancy is 78.3 years, which is higher than the regional average of 75.4 years in Latin America and the Caribbean (UNDP, 2019). However, life expectancy is 11 years lower in the Indigenous Peoples who live in the country, at 67.75 years (personal communication, World Bank, 2020).

Panamanian incomes are comparatively high. While the average per capita gross national income (GNI) in Central America is USD 13,857, the average for Panama is USD 20,455. Even so, the GNI hides a high degree of inequality: the poorest 40% account for only 11.5% of GNI, while the richest 10% account for 37.7%. Moreover, the average per capita GNI in Panama is the highest in the region but hides a substantial degree of gender inequality: on average, women can expect to earn a third less than men (USD 16,106 versus USD 24,788). Nonetheless, the rate of gender inequality in Panama is one of the lowest in the region (see Gender Context) (UNDP, 2019).



FIGURE 1. HDI TRENDS IN PANAMA (1990-2018)



Source: UNDP, 2019.

ECONOMIC CONTEXT

Panama's economy has one of the most rapid and stable growth rates in the Americas. Annual average growth has been 5% over the last five years (World Bank, 2020). The economy is based on the U.S. dollar. Services make up more than three quarters of GDP (82%) and account for approximately 64% of employment (CIA, 2020). Its main economic activities are logistics (with traffic through the canal, the Colón Free Zone, and container ports), insurance, and investments in infrastructure and the financial and tourism sectors.

The current growth is partly based on the expansion of the Panama Canal, inaugurated in 2016. The expansion doubled the channel's capacity, enabling it to accommodate such high-capacity ships as the New Panamax or Neopanamax, which were too big to use the original channel. In the 1990s, when the canal was in the hands of the United States, 200 containers passed through it every year. With the enlargement, some 13 million now make the crossing. The United States and China are among the countries that use the canal most.

Mining is gaining importance in the economy since revenues from the Cobre Panamá mine began in 2019. These revenues will be an essential driver of the country's growth, contributing 6% of GDP (Cortizo, 2019).¹ However, its leading economic growth in the region is not yet translating as shared prosperity since Panama is the second-worst country in Latin America for income distribution (CIA, 2020).

¹ The 6% includes not only Cobre Panamá but also two gold mines (Cañazas and Cerro Quema) that could enter operation within the next two years.



Among the Central American nations, Panama is 66 out of 141 in the World Economic Forum's *Global Competitiveness Report 2018* (Schwab, 2019), with only Chile, Mexico, Uruguay, and Costa Rica occupying higher places in the region. On the other hand, it is in a high position on the Transparency International Corruption Perceptions Index, with a score of 36 out of 100, placing it at 101 out of 180 countries in the 2019 world rankings, a slightly worse ranking than in 2015 (Transparency International, 2019).

Panama has one of the lowest levels of crime: According to the 2018 Global Peace Index, it ranked 50 out of 163 countries and was the second most peaceful country in the Central America and Caribbean region (Institute for Economics and Peace, 2018).

ENVIRONMENTAL CONTEXT

The Panamanian Constitution states that it is a "fundamental duty of the State to guarantee that the people live in a healthy environment free from pollution" (art. 118, translated by author) (Ministerio Público, 2016), in addition to ensuring the protection of the environment when non-renewable resources are exploited, "to avoid such exploitation causing social, economic and environmental harm" (art. 121). Thus, it undertakes to regulate, oversee, and implement "timely steps to ensure that the use and exploitation of ... lands and waters are carried out rationally, in a way that avoids their depredation and guarantees their preservation, renewal and permanence" (art. 120).

It is believed that the formation of the Isthmus of Panama is one of the most important geological events of the last 60 million years. The Isthmus of Panama has had an enormous impact on the climate and environment of Earth. Despite being a small piece of land, it has had a great influence on the oceanic circulation system and patterns of global atmospheric precipitation (MiAmbiente [Ministry of the Environment], 2011).

Panama's interior mostly consists of rugged mountains with upland plains and coastal plains with hills (CIA, 2020). A broad mountainous corridor crosses the country from west to east—the Cordillera of Chiriquí, the Sierra of Tabasará, the Cordillera Central, and Cordillera San Blas—and the mountains of Darién form a natural frontier between the slopes of the Pacific and the Caribbean (MiAmbiente, 2011).

Mangroves cover a large percentage of Panama's coasts. Of the 39 wetlands inventoried in Panama, 22 are linked to coastal marine ecosystems. Of these, five are Ramsar sites,² eight are located in protected areas, and nine have no protection (MiAmbiente, 2014).

Panama's hydrographic network has 52 basins, of which 19 flow into the Atlantic Ocean and 30 into the Pacific.

According to 2014 data from the National System of Protected Areas (SINAP), there are 105 protected areas that comprise representative samples of the 12 life zones and a range of ecosystems that have not yet been classified. Protected areas cover 38.7% of the national land area: 2,680,406.48 ha is terrestrial (35.85%), while 2.81% is marine. Panama has 57 key biodiversity areas. Of these, 28 are already protected (under SINAP), 11 are partially protected, and 18 are completely unprotected (MiAmbiente, 2014).

Panama possesses extensive biological wealth in proportion to its size. New species of flora and fauna are constantly being discovered. Many international scientific institutes study Panamanian biodiversity

² A Ramsar site is a wetland that has been designated as having international importance within the parameters of the Ramsar Convention.



every year. In 2008, Panama inventoried 52% of its biodiversity as original (remaining biodiversity) and 48% as lost; this 48% breaks down as 39% due to land-use change, 4% to infrastructure construction, 3% to habitat fragmentation, and 2% to climate change (MiAmbiente, 2014).

The gross deforestation rate is estimated at 7% and the net rate at 6%. The net figures take into account that, between 2008 and 2016, forest planting increased by 32,537.5 ha (MiAmbiente, 2014).

The country's climate is defined as hot, humid, and tropical, with a long rainy season (May to January) and a short dry season (January to May).

SOCIAL CONTEXT

The population of Panama is principally composed of the following groups: Mestizo, Afro-Colonial (descendants of African slaves transported to the isthmus during Spanish colonization), Afro-Caribbean (descendants of Caribbean French- or English-speaking workers who came during the construction of the Panama Canal), Indigenous Peoples, and White, including from "colonies" of descendants of Chinese, Indian, Pakistani, African, European and North American immigrants (CIA, 2020).

Panama's Indigenous Peoples are composed of the descendants of the original people who migrated to the isthmus after the extermination of the native population during the Spanish conquest (Economic Commission for Latin America and the Caribbean, 2005). There are seven ethnic groups that account for about 10% of the population of the country: Kuna, Emberá, Wounaan, Ngäbe, Buglé, Naso Tjerdi, and Bri Bri. In the 2010 census, 12.3% of the population was recognized as belonging to Indigenous Peoples (UNDP, n.d.).

The rights of Indigenous Peoples are recognized in the Constitution, the legislation of regional and Indigenous territories, and environmental regulations, as well as in international treaties, agreements, conventions, and jurisprudence, such as the Inter-American Court of Human Rights. The Constitution recognizes the ethnic identity of Indigenous communities (art. 90), grants the reservation of necessary lands and collective ownership (territories set apart from the regions) exclusively for Indigenous Peoples (art. 127), and guarantees representation in the Legislature (art. 147), among others.

There are five recognized regions (*comarcas*) in Panama: Kuna Yala, Emberá Wounaan, Kuna de Madungandí, Ngäbe-Buglé, and Kuna de Wargandi. The *comarca* "is an indigenous territory with semiautonomous political organization under the jurisdiction of the national government. Although it is simultaneously a geopolitical division and an administrative system with geographical boundaries and internal regulations, it is not independent of the State" (UNDP, n.d.).



FIGURE 2. INDIGENOUS TERRITORIES OF PANAMA



Source: UNDP, n.d.

Panama's official language is Spanish, and much of the population speaks and understands English in the cities of Panama and Colón. In the Indigenous regions, the native languages of the peoples who inhabit them are preserved (MiAmbiente, 2011).

GENDER CONTEXT

Panama is in Group 1 of countries in the 2018 Gender Inequality Index, which means that there is high gender equality (UNDP, 2019). Panama's value in the index is 1.005, higher than the regional average for Latin America and the Caribbean, indicating that there are lower levels of gender inequality in Panama than the average for the region. Women in Panama live substantially longer than men and longer than the regional average (women: 81.6 years, men: 75.2 years). Girls stay in school for an average of 10.2 years and stay in education longer than boys. This is above the regional average of 8.6 years (UNDP, 2019).

Panama ratified Convention 045 on Underground Work (Women) in 1959, and the country's legislation (Labour Code, art. 104) prohibits the employment of women in underground mines and in quarries.

Many countries have ratified Convention 176 on health and safety in mines, which replaced the provisions of Convention 045 by protecting all mineworkers, both men and women (International Labour Organization, 2008). To date, Panama has not withdrawn from Convention 045 or ratified Convention 176.



3.0 MINING CONTEXT

The history of mining exploration and operation in Panama begins with the activities of the Indigenous communities. It was gold that attracted the interest of Indigenous People, and later of the Spanish. During the period of Spanish colonization, Panama was known as Castile of Gold. The extent of copper sulphide and molybdenum mineralization only became manifest in the 20th century (Organization of American States, n.d.).

Current knowledge about the geology of Panama is mainly due to geochemical-geological research by the UNDP: (i) the Azuero Mining Project Phase I (1965–1968) that covered an area of 17,000 km² in the east-central part of the country; (ii) the UNDP Mining Project Phase II (1968–1972) in an area of 15,400 km² in regions in the east and west of the country; and (iii) the Mining Project Phase III, which included 2,053 km² covering all of the Soná Peninsula and the Isle of Azuero. There is also the Swedish Geological International Mining Inventory Project financed by the Inter-American Development Bank (1987) in three geographically-separated areas totalling 15,624 km², of which 7,550 km² is in the western sector, 6,149 km² is in the central sector, and 1,925 km² is in the eastern sector. These three projects entailed geochemical and geological studies and, finally, explorations to assess the presence of hydrocarbons by Esso Exploration and Production Panamá, Inc. (1969–1971) in the sedimentary basins of Bayano, Chuquaque, and Tuirá (OAS, n.d.).

In 1967, the National Directorate of Mineral Resources carried out joint ground exploration studies with UNDP and found a huge copper deposit in Cerro Colorado, in the east of the country, within the comarca of Ngäbe-Buglé. During the exploration stage, President Omar Torrijos created the Corporación de Desarrollo Minero (Codemin, Mining Development Corporation) and awarded concessions to various Canadian companies to determine the project's viability. However, the investment required was too great at the time, and Torrijos decided to suspend the project.

The Rural Land and Water Register initiated the systematic search for and demarcation of construction materials in Panama in the period 1965–1968. The regions studied were limited to the western and central parts of Panama, plus a small part of the districts of Chepo and Chimán (OAS, n.d.).

The Santa Rosa and Remance mines were in production for part of the 1990s, with subsequent controversial closures. During the 2000s, the mining industry was primarily based on the mining of construction materials (non-metallic minerals). A large quantity of these mineral resources was used for urban and infrastructure expansions in the country.



With rising international metal prices, metal mining took off again. Between 2008 and 2012, the sector grew 14.42%, accounting for approximately 1.7% of the country's GDP (World Bank, n.d.). This expansion was mainly due to Petaquilla Gold, which mined the gold deposit in Cerro Molejón south of the concession under Contract Law 9 of 1997.

But this expansion was not without controversy. In 2011, during the mandate of Ricardo Martinelli, an attempt was made to amend the Code of Mineral Resources to grant concessions to foreign governments through Law 8. The Ngäbe-Buglé people rejected this attempt since one of the licences to be awarded would have been that of Cerro Colorado, within their *comarca*, without adequate consultation and transparency. In the end, Law 8 was repealed.

However, the crisis led to negotiations commencing between the Ngäbe-Buglé people's Indigenous Coordinator and the Panamanian government and, finally, in 2012, the president of Panama, Ricardo Martinelli, enacted Law 11 of 26 March 2012. The new law recognizes the right of the *comarca* to the traditional sustainable use, management, and exploitation of renewable resources and "prohibits the granting of concessions for exploration, exploitation and extraction by the mining of metals, non-metals and their derivatives in the region," annex areas, and adjacent Ngäbe-Buglé communities.

Civil society had a heyday of anti-mining with the presentation of the Cobre Panamá Environmental Impact Assessment (EIA) in 2010. Public debates were opened on whether Panama should be a mining country or not, especially based on the fact that most of its deposits are in important biodiversity-rich areas, such as the Mesoamerican Biological Corridor. Organizations such as the Environmental Advocacy Center (CIAM), the National Association for Nature Conservation (ANCON), and the Nature Foundation (Natura) led the national debate.

This dialogue led to an initiative by the Mining Chamber of Panama (CAMIPA) in 2013 to create a Round Table for the Responsible Development of Mineral Resources in Panama. The sector's most important stakeholders took part, including business, government, non-governmental organizations (NGOs), academia, Indigenous Peoples, the Catholic church, trade unions, and professional societies. Of the agreements made, highlights include:

- Environmental and Social Axis: include specific details on mining activities in environmental management plans (EMPs), include environmental and social components in mine closure plans, strengthen senior management in local authorities, define and establish mining districts.
- Economic Axis: present an accountability report to communities by the municipalities, implement a social protection system, develop a state strategic plan for the responsible use of mineral resources, resume the Territorial Management Plans initiative for the mining sector.
- Legal and Institutional Axis: Create a new oversight institution for the mining sector, strengthen the institutional framework for the oversight and monitoring of mining projects, comprehensively review mining sector regulations (Code of Mineral Resources and other laws), establish a transition period of one year for the institutional and regulatory strengthening of the mining sector.

In 2012, the mining sector was already producing PAB 553 million and 2.1% of Panama's GDP (personal communication, World Bank, 2000), supported primarily by the infrastructure construction industry, such as the expansion of the Panama Canal and the construction of Metro Line 1. Gold exports, on the other hand, went into decline. In 2014, Petaquilla Gold unexpectedly closed, and operations were abandoned, leaving environmental and social liabilities and a number of legal cases against its representative, Richard Fifer. However, the northern part of the concession was held by



First Quantum Minerals, which today has a large-scale investment of PAB 6.7 billion in the copper, gold, and silver mine that entered into production in 2019.

In 2014, Minera Cerro Quema S.A. (now owned by Orla Mining Ltd) announced investments of PAB 100 million in a gold deposit in the south-central region of the country. In addition, the reopening of the Santa Rosa Mine was also announced, now in the hands of Vera Gold Corporation under Contract Law No. 92.

The previous government showed little interest in expanding mining. It was at the point of declaring an indefinite moratorium on mining concessions through a bill submitted to the National Assembly. That government's de facto environmental agenda was to not grant any new concessions (Coriat, 2015). However, the large deposits of copper, gold, silver, and molybdenum, together with their strategic location, show that Panama has enormous potential to attract investment. The main Panamanian mining companies are members of the CAMIPA.

As of December 2019, the National Directorate of Mineral Resources (DNRM) Register of Applications for Concessions shows 15 metal-mining contracts granted and 142 applications for metals exploration and exploitation; for the non-metals sector, there are 154 contracts and 265 applications for exploration and exploitation (MICI, 2019).

The main companies in the Panamanian industry are part of CAMIPA. The companies with larger projects currently in operation in Panama are listed below.

MINERA PANAMÁ, S.A.

Minera Panamá S.A. operates in Donoso in the province of Colón in the northern part of the concession under Contract Law 9 of 1997. After approval in 2011 of the EIA for copper extraction, Inmet Mining Corporation built a 300 MW coal-fired power plant, two ports, and a copper mine on 5,900 ha of the 12,955 in the concession, at an investment cost in excess of USD 6.3 billion (Chandiramani, 2019). In March 2013, the project was acquired by Canadian company First Quantum Minerals, which now holds the concession for 90% of the project. The remaining 10% is owned by Korean company KORES. In 2016, the Ministry of Trade and Industry (MICI) approved the extension of the original concession in Resolution No. 128 of 30 December 2016. In 2018, a ruling of the Supreme Court of Panama found that Contract Law 9 was unconstitutional on the basis of procedural arguments that approval of Law 9 did not comply with the public tendering process. Minera Panamá filed an application for clarification, seeking that the ruling should not come into force until there is a new law approving the contract since it is not a defect in the contract but in the process of approval of the law.

The company began milling and exporting copper from the project in 2019 and has USD 6.7 billion invested in it. Regarding the ruling, a High-Level Government Commission was formed (of the MICI, MiAmbiente, and the Ministry of Labour) to assess environmental and labour issues.

MINA SANTA ROSA

In 2013, the Legislative Trade Committee of the Assembly of Deputies of Panama passed a first reading of Law 92 of 2013, which gives Vera Gold Corporation a mining concession for the extraction of metal ores, gold, silver, and others in more than 2,000 ha located in the province of Veraguas, in the centre of the country.

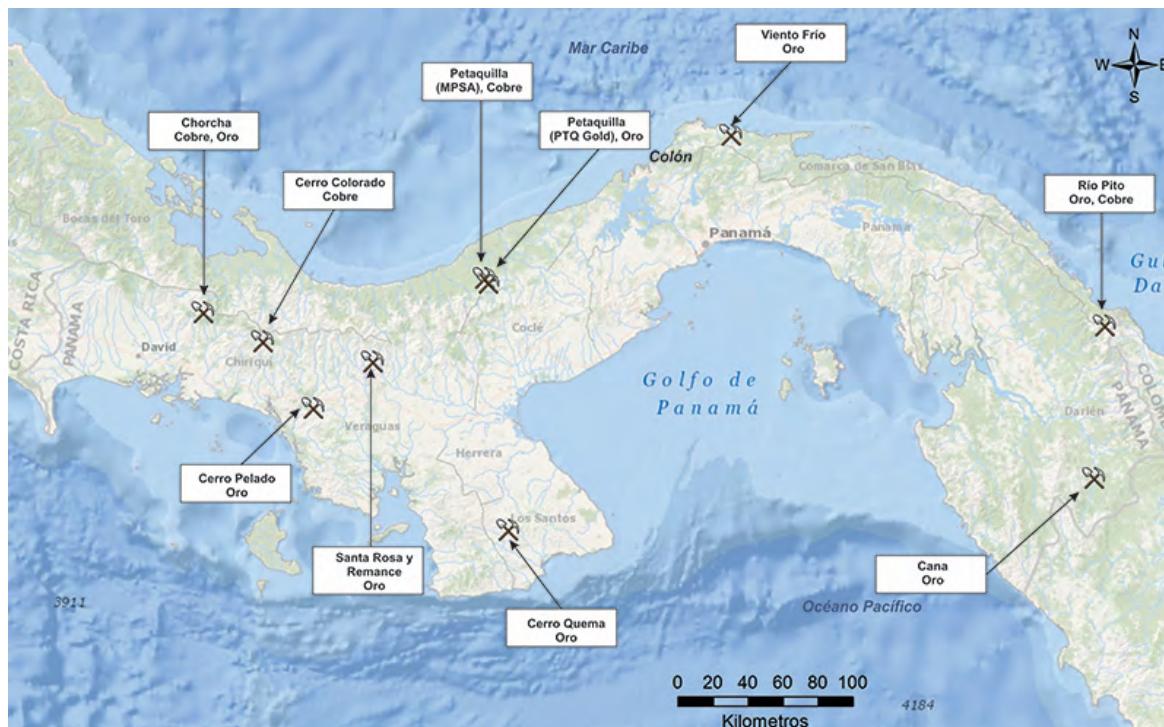
The company reports that it is designing a mill that is non-toxic to the residents of the area. The project is currently in the early stages of reconstruction of the mine infrastructure.



CERRO QUEMA

This project is in Cerro Quema, Tonosí, in the province of Los Santos. The company, Minera Cerro Quema S.A. is owned by the Canadian company Orla Mining Ltd. It has had a concession for the extraction of gold and silver since 1997, covering 14,000 ha. The company submitted its first EIA, which must be approved by MiAmbiente for a green light on the construction of infrastructure for the operation of 5,000 ha. They applied for an extension in November 2016, which is still being assessed (Noriega, 2019).

FIGURE 3. LOCATIONS OF KNOWN DEPOSITS



Source: CAMIPA, 2014 (unpublished).

**TABLE 1. VALUE OF MINERAL RESERVES AND RESOURCES (IN USD MILLION)**

MINERAL RESERVES			
1. COPPER (CU)			
Project	Mineral	Reserves (lb millions)	Value in situ (US\$ million @US\$3/lb)
Cerro Colorado	Copper	25,000+	75,000
Cobre Panamá	Copper	26,000	78,000
Chorcha	Copper	2,200	6,500
Sub-total		53,200	159,600.00
2. GOLD (AU)			
Project	Mineral	Reserves (oz)	Value (US\$ million @US\$1,500/oz.)
Cobre Panamá	Gold	7,300,000	10,950
Molejón	Gold	500,000	750
Cerro Quema	Gold	750,000	1,125
Santa Rosa	Gold	750,000	1,125
Remance	Gold	100,000	150
Sub-total		9,400,000	14,100
MINERAL RESOURCES			
Project	Mineral	Resources (oz)	Value (US\$ million @US\$800/oz.)
Cerro Pelado	Gold	115,000	115
C.Dorada	Gold	40,000	60
Viento Frío	Gold	125,000	187.5
Zioro	Gold	75,000	112.5
Others	Gold	1,000,000,	1,000
Sub-total		1,355,000	2,032.5
		TOTAL (US\$M)	175,733,00

Source: CAMIPA, 2014 (*unpublished*).



4.0 PANAMA: KEY LAWS, POLICIES, AND INSTITUTIONS

Panama is a presidential republic with three independent branches: the Executive, the Legislature, and the Judiciary. Laurentino “Nito” Cortizo Cohen has been president since June 2019. His mandate runs until 2024.

Article 257, paragraphs 5 and 6 of the Constitution state that all minerals belong to the state and that both the state and private individuals may exploit them according to law or contracts. All laws, including contract laws, must be approved by the National Assembly.

MINING LAWS

The Code of Mineral Resources (Decree-Law 23 of 1963 as amended) is the sector's main specific legislation. It establishes the concessions, tax, and economic incentive regimes as well as the obligations of concession holders and the state, among others. Law 13 of 2012 empowers municipalities to levy charges and restores articles of the Code of Mineral Resources that had been amended.

The Code of Mineral Resources classifies minerals and metals into six groups: non-metallic minerals, metallic minerals (except precious metals), alluvial precious metals, non-alluvial precious metals, energy minerals (except hydrocarbons), and reserve minerals (art. 41).

Specialized legislation was enacted for non-metallic minerals with Laws 55 and 109 of 1973, which were amended by Law 32 of 1996 and Law 13 of 2012. Law 55 is specific to rights to extract non-metallic minerals, sand, gravel, quarried stone, coral, limestone, clay, and tuff. Law 109 regulates non-metallic minerals used as building materials and refractory and metallurgical ceramics. Lastly, Law 32, which amended Laws 55 and 109, adopts measures to conserve the ecological balance and ensure the proper use of mineral resources.

The Code of Mineral Resources and its amending laws were regulated in terms of mining plans, applications for non-metallic minerals concession and authorizations for the extraction of minerals for public works, which were essential for the growth of Panama during the 21st century.

In addition, six executive decrees were issued declaring mining reserves in different parts of the country. Each of these areas has its own legal framework with procedures for the award of and



conditions applicable to each concession. The Code of Mineral Resources applies these in a complementary manner (art. 32, Code of Mineral Resources). These areas are in certain parts of the Pacific Coast, Capira, Chame, San Carlos, Antón, Farallón, and the beds of the rivers Chagres, La Villa, Santa María, and Mamoní, among other places.

The following box lists legislation applicable to mining:

- Code of Mineral Resources, 1963
- Law 13 of 2012 reforming the Code of Mineral Resources for metallic minerals
- Law 55 of 1973
- Law 109 of 1973, on non-metallic minerals
- Law 32 of 1996, on ecological balance and the proper use of mineral resources
- Mining Plans Regulations, 1998
- Regulations for Applications for Non-Metallic Minerals Mining Concessions, DGRM-98-67
- Regulations for authorizations to extract minerals for public works, DGRM-98-93

ENVIRONMENTAL LAWS

There is no environmental legislation in Panama specifically applicable to mining. The general environmental regulations are applied, which protect and regulate the use and exploitation of natural resources that may be affected by any economic activity, including mining. The main legislation is the General Environment Law.

Due to its adverse environmental effects, mining requires Category II (significant negative environmental impacts that partially affect the environment) and Category III EIAs (it produces indirect negative environmental impacts that merit closer analysis for the evaluation, identification, and application of mitigation measures). The requirements for EIAs are described in Executive Decree 123 of 2009.

The use of water is legislated by Decree-Law 35 of 1966, which is applicable to all economic activities and regulated by regulation DGNTI-COPANIT 22-393-99 on water quality.

The discharge of liquid effluents, applicable among other economic activities to mining, is regulated by Resolutions 350 and 351.



Biodiversity, meanwhile, is protected under Law 24 of 1995 on Wildlife and the Creation of the National System of Protected Areas, as well as Forest Law 1-94 and Reforestry Law 24-1994.

The following box details environmental legislation applicable to mining:

- General Environment Law 41 of 1998
- Executive Decree 123 of 2009 Regulation of the Process of Environmental Impact Studies
- Decree-Law 35 of 1966 regulating the use of water
- Regulation DGNTI-COPANIT 22-393-99: "Water Quality. Sampling for biological analysis"
- Law 24 of 1995 on Wildlife
- Resolution J.D. 009-94: National System of Protected Areas
- Law 1-94: Forest Law
- Law 24-1994: Reforestation
- Resolution AG-0235-2003: Rates for ecological compensation payments
- Resolution 343 of 1997
- Resolution 350 of 2000: Direct discharge of effluent liquids into wastewater collection systems
- Resolution 351 of 2000: Direct discharge of effluent liquids into surface waters
- Resolution 352 of 2000: Use and final disposal of sludge

TAX LAWS

The same taxation system applies to the mining sector as to other companies, with the addition of a complementary system based on the Code of Mineral Resources and the municipal system (for further detail on the tax system, see Financial Benefit Optimization).

The following box details tax legislation applicable to mining:

- Tax Procedure Code (2019)
- Code of Mineral Resources (1963)
- Executive Decree 360 (2015), regulating the obligation to pay royalties

CONTRACT LAWS

The National Assembly can negotiate contract laws with companies that request this. These contract laws can generate particular legal frameworks applicable to the project.

The following are the two existing contract-laws found in the descriptions of the companies Minera Panamá, S.A. and Vera Gold S.A.

- Contract Law 9 of 1997: Petaquilla concession (Minera Petaquilla, S.A., now Minera Panamá, S.A.)
- Contract Law 92-2013: Vera Gold Corporation, S.A.



OTHER LEGISLATION

The following box details other legislation applicable to mining:

- Health Code - Law 66 of 1947
- Law 106 of 1973 on the Municipal Regime
- Resolution No. AG 363-2005 on the register of national historic and archaeological finds
- Regulation DGNTI-COPANIT 44-2000 on health and safety in workplaces where noise is generated
- Regulation DGNTI-COPANIT 43-2001 on health and safety in workplaces where chemicals are generated
- Regulation DGNTI-COPANIT 45-2000 on health and safety in workplaces where vibrations are generated

TABLE 2. INTERNATIONAL AGREEMENTS AND COMMITMENTS RELEVANT TO THE MINING SECTOR

CATEGORY	DOCUMENT	DATE OF RATIFICATION
Human Rights	Universal Declaration of Human Rights	
	American Convention on Human Rights (Pact of San José, Costa Rica 1969)	1978
	International Covenant on Economic, Social and Cultural Rights	1977
	International Convention on the Elimination of All Forms of Discrimination against Women	1981
	Convention on the Rights of the Child	1990
Environment – United Nations	Convention on International Trade in Endangered Species of Wild Flora and Fauna	1978
	Ramsar Convention on Wetlands	1990
	United Nations Framework Convention on Climate Change	1995
	Convention on Biological Diversity	1995
	Convention to Combat Desertification	1996
	Programme on Reducing Emissions from Deforestation and Forest Degradation (REDD+)	
	Paris Agreement	2016
Management of Dangerous Chemicals	Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal	1991
	Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade	2000
	Stockholm Convention on Persistent Organic Pollutants	2003



CATEGORY	DOCUMENT	DATE OF RATIFICATION
International Labour Organization	Convention Concerning Forced or Compulsory Labour	1966
	Underground Work (Women) Convention	1959
	Equal Remuneration Convention	1958
	Convention Concerning the Application of the Principles of the Right to Organise and to Bargain Collectively	1958
	Convention Concerning Discrimination in Respect of Employment and Occupation	1966
	Convention on Freedom of Association and Protection of the Right to Organise	1958
	Convention Concerning Minimum Age for Admission to Employment	2000
	Worst Forms of Child Labour Convention	2000

In 2015, Panama signed the Minamata Convention on Mercury with a commitment to eliminate its use in the country. Mercury is still extensively used in artisanal and small-scale gold mining in many of the countries where gold is found since it is the least expensive process and, therefore, commonly used. Fortunately, Panama has a small and incipient artisanal and small-scale mining (ASM) sector, and mercury use is not widespread.

Panama is not a member of the Extractive Industries Transparency Initiative (EITI).

KEY GOVERNMENT INSTITUTIONS

NATIONAL DIRECTORATE OF MINERAL RESOURCES (DNRM)

The DNRM is a specialized unit of the MICI created by Decree-Law No. 23 of 1963, promoting the development of the mining industry. It is the technical and administrative execution body for the use and conservation of mineral resources. It is also the repository of the country's geological information.

Decree-Law 6 of 15 February 2006 reorganized the MICI and defined the DNRM as the governing body of the mineral resources sector, as well as other industries. Its functions include:

- Technical and administrative implementation of national policy on the use and conservation of mineral resources.
- Advising the Executive Branch on the structure and programming of development plans for national mining policy.
- The granting, suspension, and cancellation of concessions for the exploration, operation, processing, and transport of metallic and non-metallic minerals.
- Inspection, monitoring, and control of mining operations and of compliance with the terms laid down in mining concession contracts.
- Technical support through mineral analysis laboratories.



MIAMBIENTE

MiAmbiente is the autonomous state governing body for natural resources and the environment. It is required to ensure compliance with and enforcement of environmental laws and regulations. These include the obligations to present EIAs and EMPs in development projects in Panama, which are defined in its own law; this certainly includes mining projects.

THE MINISTRY OF WORK AND EMPLOYMENT DEVELOPMENT

The Ministry of Work and Employment Development (MITRADEL) is the body responsible for planning, promoting, regulating, administering, and implementing the system for the administration of work. It establishes national labour policy and state projects and programs for the development of employment, in accordance with the Constitution, laws, and international conventions ratified by Panama. It has no direct involvement in the development of mining, but some of the rules of the Labour Code apply to the sector. For example, the prohibition of the employment of women in jobs considered to be unhealthy (art. 104), child labour (art. 118), work with hazardous substances (arts. 283, 294, 288), among others. But it does not regulate the employment relationship between the mining employer and Panamanian employees, which is regulated under the Code of Mineral Resources or relevant contract law.

THE MINISTRY OF HEALTH

The Ministry of Health (MINSA) is responsible for overseeing the health and hygiene aspects of mining under the Health Code. It oversees industrial hygiene, occupational health services, and articles that are harmful to health.

THE MINISTRY OF THE ECONOMY AND FINANCE AND THE GENERAL TAX DIRECTORATE

The Ministry of the Economy and Finance is involved in the mining sector through the collection of tax revenues, in turn through the General Tax Directorate (DGI) and exports. Taxation is primarily based on income tax under the Tax Procedure Code.

THE MINISTRY OF SOCIAL DEVELOPMENT

The Ministry of Social Development (MIDES) is responsible for the Panamanian government's social policies. The Family Code, which MIDES is obliged to implement, prohibits the employment of persons under 18 years in hazardous activities such as handling explosives, underground work in mines and quarries, and handling substances that are harmful to human health (art. 510). It incorporates the National Institute of Women, which works for gender equality in Panama.

THE MINISTRY OF PUBLIC WORKS

The Ministry of Public Works is directly involved in the mining of construction materials and is able to operate quarries itself. It currently has eight concessions for quarry stone and river gravel. It is also the governing body for roads and infrastructure.

THE NATIONAL DIRECTORATE OF HISTORICAL HERITAGE

The National Directorate of Historical Heritage (DNPH) is responsible for Panama's historical and cultural heritage. It approves EIA studies on heritage to ensure that concessions cause no damage to the country's cultural and historical riches.



DEPUTY MINISTRY OF INDIGENOUS AFFAIRS, UNDER THE MINISTRY OF THE INTERIOR

This deputy ministry is responsible for coordinating and maintaining communication between *comarcas* and national governments. It coordinates and implements plans and projects for the holistic development of Indigenous Peoples. Insofar as mining is concerned, it safeguards the social, economic, and cultural interests of Indigenous Peoples, ensuring that they are not affected by mining activity.

MUNICIPALITIES

Municipalities have close involvement with mining in Panama, especially in the administration of non-metallic mining. They can create municipal enterprises or joint ventures for the exploitation of resources (art. 8) and enact measures to protect the environment (art. 17 of Law 106 of 1973). The municipalities collect taxes on the extraction of non-metallic minerals and, depending on the royalty rate, on metallic minerals (Law 3 of 1988).



5.0 ASSESSMENT: PANAMA AND THE MPF

LEGAL AND POLICY FRAMEWORK

The first pillar of the MPF is the general regulatory framework and policies with respect to permitting processes. It encourages a mature, modern legislative system with clear lines of responsibility and accountability. This combination of regulations serves as the basis for good governance and sustainable development. The MPF's recommendations for this pillar 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 permitting process that requires:
 - Consultation with communities in the planning and development stages.
 - The submission of integrated social, economic, and environmental assessments.
 - The identification of sustainable development opportunities.
 - A plan and adequate financial assurance for mine closure.
 - The protection of Indigenous rights and cultural heritage, including addressing resettlement and community safety and other security issues.
 - A timely, transparent, unambiguous, and consistent process.

KEY LAWS AND POLICIES

- The Constitution of Panama (1972, amended in 2004)
- Code of Mineral Resources (1963)
- General Environment Law (1998)
- Executive Decree 123 (2009), Regulation of the Process of Environmental Impact Assessments
- Law 13 of 2012 reforming the Code of Mineral Resources for metallic minerals
- Contract Law 9 of 1997
- Contract Law 92-2013



The legal system for mining is based on the precepts of the Constitution, which declare that the country's minerals are the property of the state (art. 257, paragraphs 5 and 6). The Code of Mineral Resources (amended by Law 13 of 2012, among others) establishes the legislation specific to mining, including permitting; the characteristics of each mining concession (see Table 3); the classification of minerals (see Table 4); taxes; the employee–employer relationship; and the powers and obligations of the concession holder and the state, among others.

The General Environmental Law and Executive Decree 123 govern the EIAs that applicants for concessions are required to submit in order to be granted an environmental permit to receive a mining concession.

Lastly, contract laws negotiated and approved by the National Assembly provide a specific legal regime for the concessionaire. At present, there are only two contract laws, one for the Cobre Panamá project and another for Vera Gold.

TABLA 3. ETAPAS DEL CICLO MINERO SEGÚN EL CÓDIGO DE RECURSOS MINERALES Y PERÍODOS DE CONCESIÓN EN CADA ETAPA

STAGE	DEFINITION IN THE CODE OF MINERAL RESOURCES	PERIOD OF CONCESSION
Surface survey	Permit issued to geology professionals to conduct inspections for the purpose of surveys of the superficial geology.	6 years
Exploration	Digging, drilling, dredging, or any other underground activity that, in addition to the preliminary geological investigation, is conducted in order to determine geological conditions favourable to the presence of a mineral.	Initial period of 4 years with a maximum area of 25,000 ha
Extraction	Separation of a mineral from its bed.	See Table 4 for mineral classifications. Three extensions: the first for 10 years and subsequent extensions for 5 years.
Transportation	Transport of a mineral using a mining transportation facility, with the following exceptions: 1. Transportation generally associated with an extraction or processing operation and forming part thereof. 2. Transportation necessary to test, analyze, or in any other way, assess a mineral.	25 years Three extensions: the first for 10 years and subsequent extensions for 5 years.
Processing	1) The separation of the different chemical elements or compounds that form a mineral. 2) The preparation of a mineral without changing its chemical composition, including crushing, separation by size, and drying. 3) A combination of the processes included in 1) and 2) above.	25 years Three extensions: the first for 10 years and subsequent extensions for 5 years.



TABLE 4. CLASSIFICATION OF MINERALS WITH PERIODS AND SURFACE AREAS OF EXTRACTION CONCESSIONS

CLASS	MINERAL	DEFINITION	PERIOD	SUPERFICIE (HAS)
(years)	Non-metallic minerals	Minerals from sedimentary deposits (detrital, chemical, biochemical, and from underground water) that create exogenous concentrations, such as gypsum, sulphur, phosphate, amorphous silica, and derivatives, etc. and also those minerals specified in Article 1 of Law 109 of 8 October 1973.	25	5,000
II	Metallic minerals except precious minerals	Those minerals arising from hydrothermal deposits and from plutonic affinity leading to endogenous concentrations such as copper, iron, zinc, lead, aluminum, etc.	25	5,000
III	Alluvial precious metals	Those that cause exogenous concentrations, such as gold, silver, etc.	10	3,000
IV	Non-alluvial precious metals	Those that cause endogenous concentrations, such as gold, silver, diamond, etc.	20	5,000
V	Energy minerals, except hydrocarbons	Those used to produce energy, such as coal, peat, radioactive minerals, etc.	25	10,000
VI	Reserve minerals	Those minerals that the Executive Body determines on the basis of the national interest at the time.	25	5,000

The extraction of semi-precious stones—such as jasper, agate, onyx, chalcedony, and other derivatives of amorphous silica found in isolation in their natural state on the surface of the ground—and of gold-bearing sands from rivers may be carried out by means of special licences from the DNRM, on the condition that such extraction is not carried out in fixed establishments and is carried out on a small scale (art. 17, Code of Mineral Resources).

STRENGTHS

Public participation is incorporated into the EIA process

Public participation is necessary for the approval of mining concessions under the law. Public participation is addressed in two stages: in the preparation of the EIA (art. 28 of Decree 123) whereby, once it has been prepared and submitted, a space in the process is opened for Panamanian citizens in the preparation of the EIA (art. 13 of Decree 123). And then, if the EIA is in Category III, there is a public debate before the decision-making phase on the EIA.

MiAmbiente has to publicly announce the presentation of EIAs for consideration and will grant a period for comments on the proposed project (art. 12, General Environment Law). This obligation is not exclusive to the mining sector.

The consultation is not binding; comments must be reviewed and answered and must be presented to MiAmbiente (art. 34, Decree 123). It is carried out in the area of influence—direct and indirect—and concessionaires are required to identify key stakeholders.



In the case of projects to be carried out in the territories of Indigenous communities, consultation procedures are aimed at “establishing agreements with community representatives” (art. 98, General Environment Law, translation by authors).

The participation of civil society is also guaranteed in the preparation of the EIA (art. 12, Decree 123). However, public participation under environmental legislation is not required in all stages of mines’ life cycles (see Weaknesses).

Impact assessments integrate both environmental and social elements. Impacts and risks are described as are their mitigation measures. Assessments describe social and environmental opportunities

The process of assessing environmental and social impacts is enshrined in the General Environmental Law and Executive Decree 123. It is established that any activity that may cause environmental hazard or harm shall require an EIA prior to implementation. MiAmbiente approves or rejects the EIA after making it publicly available for consideration and comment.

The EIA has a socioeconomic component that requires a description of the socioeconomic conditions of the area in question³ (art. 26.8 of Decree 123) and an analysis of the project’s social and economic impacts on the community (art. 26.9.4 of Decree 123). This minimum content of the EIA leads to the creation of a detailed picture of the community’s social and economic make-up.

The developer should quantify the positive impacts in the area of influence of the project in the EIA and EMP (art. 26.2.5, Decree 123). In this way, it supports the project’s viability.

Permitting processes consider resettlement, issues related to Indigenous Peoples, and cultural heritage

Indigenous Peoples in Panama have wide recognition, including their own jurisdiction (*comarcas*) (see Social Context). The General Environmental Law, which regulates the use of natural resources in Indigenous *comarcas* and collective land for Indigenous Peoples (art. 50), also establishes that “exploration studies, exploitation and use of natural resources authorized in lands occupied by *comarcas* or Indigenous Peoples shall not cause detriment to their cultural, social or economic integrity or spiritual values” (art. 95, translation by authors).

Consultation procedures for projects developed within the territories of Indigenous communities “shall aim to establish agreements with community representatives concerning their rights and customs and securing compensatory benefits” (art. 98, translation by authors).

Indigenous Peoples shall have the right to a share of the economic benefits that may accrue from activities intended to make use of natural resources in *comarcas* or Indigenous Peoples’ lands (art. 100).

The resettlement of communities is taken into account in the permitting process, especially under the EIA (art. 23, Decree 123). The DNRM checks whether the property’s coordinates to be used for mining are inside an Indigenous *comarca*, referring to the Deputy Ministry of Indigenous Affairs. Under contract laws, Minera Panamá has also worked on the relocation of Indigenous communities from Petaquilla and Chicheme.

Cultural heritage is also taken into account in Panamanian mining legislation. Article 138 of the Code of Mineral Resources states that notifications must be given if archaeological objects are found in

³ For example, the characteristics of the population, access to public services, demographic indices, mortality rate, employment index, facilities, services, infrastructure and economic activities, local perceptions of the project, etc.



the course of operations. Resolution AG 363-2005 of the National Environment Authority (ANAM, now MiAmbiente) establishes “the obligation to record national historical and archaeological finds.” This is supported by Law 14 of 1982, known as the Historical Heritage Law.

EIA Decree 123 requires applicants to detail in their EIA whether the project has declared historical, archaeological, or cultural sites (art. 26.8.4). Also, the detail of the criteria for proposing an environmental category must take into account “if the project generates or presents alterations to declared sites with anthropological, archaeological, or historical value and belonging to the cultural heritage” (translation by authors) with the goal of assessing if significant changes are generated.

WEAKNESSES

Geological information is deficient and requires better access

The government has little geological information, and the information is not readily available to the public. Geological information for the whole country is available at a scale of 1:250,000.

Article 1 of the Code of Mineral Resources reflects the government’s desire to leave exploration of the country to the private sector, subject to an obligation to provide the DNRM with geological reports and maps of a general nature (art. 98, Code of Mineral Resources). It is, however, the DNRM’s role to create the geological map of the country and obtain comprehensive information on mineral resources (art. 294 e and f, Code of Mineral Resources).

There is currently no plan on the part of the state to consolidate, expand, use, or increase the stock of geological information. There is also a need to improve the level of detail in the maps. Concessionaires are asked to provide these (art. 98, Code of Mineral Resources) at a scale of 1:50,000, which does not allow the development of a mining sector with sufficient information to attract new investment.

It is impossible to calculate or estimate the importance of deposits to the Panamanian economy without an inventory of resources based on systematic geological research.

The mining code is old and does not reflect best practices

The Code of Mineral Resources is out of date and does not reflect current knowledge or best practice. It dates from 1963, with various amendments (Law 32 of 1996 and Law 13 of 2012). These amendments, however, did not bring substantial changes with respect to best international practices.

Some of the key issues in the current code that need improvement are the relationship with local development; requirements for extensive, regular community consultation; linkages with the Sustainable Development Goals; adherence to best environmental stewardship practice, including for water, waste, and biodiversity; requirements for review of closure and rehabilitation plans; guarantee mechanisms for closures; and clear differentiation for ASM.

There is no policy for the development of the sector

The government manages the sector with no policy to guide its development, which results in stakeholders not knowing if Panama has a government interested in developing mining or not—and, if so, then how to approach it.

A presidential goal was created during the 2019 campaign to develop the sector, seeking to strengthen “the institutions of the State for proper compliance with laws, contracts and regulations, particularly concerning environmental, fiscal and labour matters and the protection and development of communities in places where these projects are located and in the country in general” (Cortizo,



2019, translated by author), and this report is intended to support this process. Even so, interviews conducted for this report reveal that officials have doubts regarding the development of the sector.

The permitting process does not take into account every phase in a mine's life cycle

Although the life cycle of the mine is addressed in the Code of Mineral Resources from prospecting onwards, there is no consideration of closure and post-closure in the permitting process.

Environmental legislation covers project closures in general but does not take account of the particular characteristics of the mining industry. It is unclear what level of engineering is required, whether community consultations should be held for this stage, or to what extent consideration should be made of the environmental and social impacts of closure and post-mining transition (see Post-Mining Transition).

In addition, there is no legal requirement for public consultation in all stages of the life cycle of the mine. Consultation is required in accordance with the environmental category of the EIA proposed by the applicant and ratified by MiAmbiente (see Socioeconomic Benefit Optimization). It is at the concessionaire's discretion to carry out consultations during the other stages.

The information required of companies does not contain the details needed for informed decisions to be taken

Article 100.1 of the Code of Mineral Resources requires concessionaires to present an annual report on operations from the previous year that "shall be of sufficient detail for a determination of the diligence with which the operations were conducted" (translation by author). Art. 100.4 also requires an operations report with certain requirements. The information required of companies does not contain the details needed for informed decisions to be taken.

The permitting process is viewed as unstable, inconsistent, with little transparency, and discretionary

The lack of consistency in the permitting process arises from the ability of companies to choose to obtain a concession through contracts passed by law—or contract law—at the company's and government's discretion without there being any specific criteria to distinguish when it is appropriate to award a concession by law and when by contract. One of the reasons given is to make the state's regulations immutable and not subject to legislative or regulatory changes applicable to the entire sector. This prevents the state from demanding better practice from these concessionaires. The contract laws in force also contain certain differences and benefits not provided by the Code of Mineral Resources, such as in the case of Law 9 that granted greater financial benefits or exceptions to the ban on foreign governments holding mining concessions.

The process is considered to be unclear and with little transparency since there are 142 applications pending for metallic mineral exploration and operation concessions, which mostly take between 10 and 20 years to process. Similarly, companies that have made significant investments, such as Minera Cerro Quema, have had applications for the extension of concessions and the submission of EIAs pending for more than four years without a response from the MICI and MiAmbiente. They have received no information on when they will receive an answer or the reason for the delay.

Permits are considered unstable. For example, legal uncertainty has arisen from a declaration of unconstitutionality of the contract law under Law 9 of 1997, which is the largest mining project in the country and crucial to the country's growth. One year after the declaration was handed down, there is no unanimous interpretation from the Executive (represented by the MICI) or decision on how to carry the ruling out. The project is still in operation, but its legal position has not been resolved. In addition, the Supreme Court declared this unconstitutionality 10 years after the Centro de Incidencia



Ambiental (CIAM) NGO filed its case, which means that the Judiciary too is slow to consider key issues affecting the sector.

There are also arbitration rulings against the Government of Panama, such as that of Dominion Minerals Corp for its refusal to grant an extension to the concession to explore a copper, gold, and silver deposit in Cerro Chorcha. This was to do with the government's demand in 2009 for participation and financial benefits in exchange for the extension; when the company rejected this demand, the government declared the property to be a mining reserve, and the company then filed a case against the government.

Furthermore, several companies in operation reported that they do not always know in advance what requirements the government will impose: the information required has overlaps, or the technical level required is not suitable for the industry. This is partly due to a lack of regulations, guidelines, or protocols that would give greater clarity to the private sector.

Regarding the EIAs in concession applications, stakeholders believe that they are able to commence mining operations as soon as the EIA is approved; however, they still need the mining-authority licence. This confusion arises due to a lack of clarity in the Code and General Environment Law and a lack of coordination between the MICI and MiAmbiente. In addition, MiAmbiente is able to approve an EIA for a parcel smaller in size than the concession approved by the MICI. This has led to confusion and problems with communities, who complain that the EIA does not cover the entire area of the concession. Finally, both the approval of mining concessions and the approval of EIAs may take years to be processed with no reason given by the authorities, leading to what many believe to be a de facto moratorium.

FINANCIAL BENEFIT OPTIMIZATION

The second pillar of the MPF is the optimization of the financial benefits of mining activities through taxes and royalties that reflect the value of mineral resources to society. The other major subtopic of this pillar is revenue transparency on the municipal and national levels and the distribution of these revenues to local development in the areas affected by the mining industry. 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.
- Providing a policy that optimizes revenues while offering an adequate rate of return to investors, uses income tax based on net profits, and applies such taxes in a similar manner as to non-mining activities.
- The need for a high level of human and intellectual resources, particularly to administer and audit the country's tax system and obtain maximum benefits 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 Constitution of Panama (1972, amended in 2004)
- Code of Mineral Resources of Panama (1963)



- Executive Decree 360 (2015), regulating the obligation to pay royalties
- Tax Procedure Code (2019)
- Law 13 (2012), reinstating articles in the Code of Mineral Resources

The Mining Taxation System

For concessions governed by the Code of Mineral Resources, tax, fiscal, and economic incentives are regulated by the Code of Mineral Resources and the Tax Procedure Code. Special contracts may include particular taxes and incentives.

The Panamanian general tax regime applies to concessionaires. This includes payment of 25% on income, and the municipalities are able to levy their own taxes. Furthermore, Panama has a Transfer of Movable Property and Provision of Services Tax (ITBMS), known in other countries as a value-added tax, which, at 7%, is one of the lowest in Latin America (González Mata et al., 2019).

The Code of Mineral Resources establishes specific financial obligations. Applicants for concessions must “present a proposed premium payable to the Nation for the right to the concession” (art. 20). The surface-area canon (rent) is calculated per hectare. For exploration, it establishes the following (art. 210):

EXPLORATION	
AÑOS DE CONCESIÓN	CANON POR HECTÁREA BALBOA
1 to 2	1.00
3 to 4	2.00
5 or more	3.00

For the exploration of minerals in Class III alluvial precious metals, a 5% charge is made on gross marketable production in addition to the mining canon.

For those with extraction concessions, the rent is calculated on the basis of the number of years and the class of mineral extracted (art. 211):

MINERAL CLASS	EXTRACTION			ROYALTIES	
	CANON BALBOA				
	UP TO 5 YEARS	6 TO 10 YEARS	MORE THAN 10 YEARS		
I – Non-metallic	1.50	3.50	4.50	0	
II – Metallic, except precious metals	2.00	4.00	6.00	5%	
III – Alluvial precious	2.00	4.00	6.00	8%	
IV – Non-alluvial precious	2.00	5.00	7.00	4%	
V – Energy, except hydrocarbons	1.5	3.00	4.00	4%	
VI – Reserve	3.00	6.00	8.00	6%	



Royalties are calculated on the basis of gross sold or marketable production and are subject to amendment by the MICI, but never below the levels laid down in the code. These are deductible for calculations of income tax.

The distribution of royalties includes: (i) a payment to the owner of the surface, with 5% of royalties in proportion to the hectares covering the mineral deposit (art. 216 of the Code of Mineral Resources); (ii) a payment to the National State that, from royalties at a rate of 5% or more, must allocate 2% to programs to the benefit of surrounding communities and 1% to the Social Security Fund, and (iii) the municipalities receive 20% of the total revenues to be paid to the state (art. 20 of Law 13 of 2012).

The Code of Mineral Resources lays down a series of incentives to promote investment and improve competitiveness against other countries. Among other provisions, it establishes an exemption from the import tax on spare parts, equipment, or materials required for mining operations (art. 262); deductions for mineral depletion (art. 234); a method for depreciation; and discounts for exploration expenses from the payment of mining canons (art. 222) (personal communication, Virgilio Luque, December 12, 2019).

Concessionaires extracting non-metallic minerals, such as sand, gravel, quarry stone, limestone, clay, and tuff, pay between PAB 0.5 and PAB 3 per cubic metre, depending on the material extracted.

There are also concessions by contract (passed as law), which set different canon and royalty payments. In the case of Law No. 9 of 1997, for example, under which Minera Petaquilla, S.A. (now Minera Panamá, S.A.) operates, lower canon and royalty rates were established than those currently set in the Code of Mineral Resources.

Canon in areas not defined as within the project:

YEAR OF CONCESSION	CANON PER HECTARE (USD/PAB)
1 to 2	0.50
3 to 4	1.00
5 or more	1.50

In areas defined as within the project:

CLASS	CANON (USD/PAB)			ROYALTIES
	UP TO 5 YEARS	6 TO 10 YEARS	MORE THAN 10 YEARS	
I	0.75	1.25	2.00	2%
II	1.00	2.00	3.00	2%
III	1.00	2.00	3.00	4%
IV	1.00	2.50	3.50	2%
V	0.50	1.00	1.00	2%
VI	1.50	3.00	4.00	2%

This contract also includes a range of exemptions and incentives.



STRENGTHS

The same taxation regime is used for other sectors, with specific deductions for the mining sector

Company taxes on the mining industry in Panama are similar to those on non-mining companies, with the possibility of specific incentives. The general tax regime applies to mining concessionaires, which facilitates tax administration. The existence of multiple tax rates within a jurisdiction can complicate the collection, management, and transparency of revenues.

The distribution of financial benefits for community development is required by law

Law 13 of 2012 provides that part of the financial benefits are allocated to communities near mining projects. When the royalty rate is 5% or higher, the state is required to transfer 2% for infrastructure works and social development programs for the communities neighbouring the concessions and 1% directly to the Social Security Fund to strengthen funding for disability, old age, and death (art. 211, Code of Mineral Resources).

The 20% of income received by the municipalities (detailed in the following title) must be directed solely to “development programmes in the areas of education, health and socio-environmental investment projects required by the communities” (art. 20, Law 13 of 2012, translation by the author).

Municipalities can directly collect their revenues

In many countries, there are disputes between national and local authorities over the collection of taxes due to local jurisdictions. In the case of Panama, municipalities where exploration and extraction take place receive 20% of the revenues due to the state under the Code of Mineral Resources. This collection is carried out directly by the municipality from the company using calculations made by the DNRM (art. 20, Law 13 of 2012).

The current staff of the DNRM are geology and mining engineers with extensive experience in the mining sector

Panama has a small mining sector, but the DNRM is staffed with professional mining decision-makers with much experience in Panamanian mining. Since the governance of the sector is under a ministry responsible for a broad range of economic activities, having specialized professionals such as those at the DNRM enables the Government of Panama to make well-informed technical decisions.

WEAKNESSES

Royalty and tax flows are neither transparent nor properly managed

The government does not publish data on taxes and royalties, nor on their distribution and use at the local, regional, and national levels. This is key to increasing accountability, reducing corruption, and maximizing socioeconomic benefits.

There was, for example, an attempt to create a trust to manage the use of the construction tax from the Cobre Panamá project in the Municipality of Donoso. However, this mechanism did not work, and the community does not know the destination of these funds. They were used at the discretion of the municipality with no vision for the sustainable development of the region and communities.

In the same vein, the government is not yet considering joining the EITI, which could provide it with structured help to disclose the mining industry's benefit streams to the general public.



There is no optimization of tax revenues during periods of high prices while it does not minimize the risks of suspension or discontinuance of activities during periods of low prices

If Panama seeks to promote the mining sector as an option to diversify its income, one problem could be the volatility of mineral prices. The instability of price cycles means that government receipts from the sector could be high in some years and low in others.

Panama does not optimize tax receipts with mechanisms to increase revenues from mining activity at times when metal and mineral prices are high. The revenues from periods of high prices can be used to create, for example, reserves or funds to relieve pressure at times of lower metal prices.

Similarly, there are no mechanisms to lower the amounts of royalties and canons at times of low metal and mineral prices in order, if necessary, to ease the tax burden on mining companies in danger of collapse or suspension of activities.

National policy objectives are not taken into account when contracts are negotiated or mining concessions are allocated. There is no alignment with economic development strategies in other sectors

Contract law negotiations and the allocations of mining concessions under the Code of Mineral Resources have not considered national policy objectives, national development plans, or the ways in which agreements can promote these objectives. Projects are evaluated and approved case by case, based solely on the information provided by the mining companies.

Also, the mining sector is not integrated with other sectors of the economy with the aim of optimizing its contributions. There is no general plan for the development of the mining sector that accounts for national, regional, and local economies and development strategies.

Mining can be a very significant driver of progress toward sustainable development and the 2030 Agenda on Sustainable Development approved by the United Nations—especially Sustainable Development Goal 11 (sustainable cities and communities). Mining can contribute to creating sustainable communities by, for example, coordinating with local governments to support the development of appropriate local infrastructure or implementing plans for the management of cultural heritage.

Some municipalities support illegal mining by collecting taxes from companies which do not seek concessions

It has been noted that some municipalities in Panama charge canons and royalties to mining companies that extract non-metallic minerals, particularly building sand and gravel, without the companies holding the relevant mining concession. As a result, the municipalities are supporting the illegal exploitation of non-metallic minerals instead of encouraging their formalization.

The fixed-rate charge for non-metallics supports illegal extraction

In the case of non-metallic minerals, royalties are paid only on the basis of the amount of material extracted, regardless of the price at which it is sold. Charging a fixed amount per cubic metre or tonne, instead of being based on the selling price or the real value of the product, can result in charging artificially low or high royalties, which can incentivize illegal extraction or can wipe the business out, respectively.

Currently, mining authorities lack the capacity to negotiate and interpret mining contracts

There is insufficient knowledge of mining processes and the mining business for there to be good negotiation and interpretation of mining contracts.



Not only should mining authorities have knowledge on this subject but so should other state actors, such as tax authorities, legislators, municipalities, and others. In short, it is advisable that all authorities that have some interest in contract negotiations and their implementation and enforcement build their capacity on the subject of mining contracts.

Oversight of taxation on metallics and non-metallics is weak

The DGI does not have sufficient resources to inspect mining operations. Mining is generally conducted far from urban centres, making inspection more burdensome than industries close to cities. In addition, DGI inspectors do not have special resources for monitoring mining companies. Obviously, having robust inspection makes it possible for taxes to be collected correctly.

In addition, the auditing carried out by the DGI for the collection of taxes from mining companies extracting metallic and non-metallic minerals is weak. This weakness is manifested in the following facts, among others:

- As the time for the first payment of production royalties by Cobre Panamá approaches, inspectors have no knowledge of the company's mining processes or of how an inspection should be conducted.
- In the extraction of non-metallics, especially underwater sand, there is no clear and rigorous procedure for quantifying said extraction. Although Law 13 of 2012 lays down that ships or vessels must be fitted with an automatic location system to permit tracking, this control system has not been implemented.
- There is no knowledge of modern techniques used by international companies to minimize or avoid paying taxes, such as inadequate transfer prices; the creation of shell companies; base erosion and profit shifting, whereby profits are transferred to tax havens (countries with low or no taxation); abusive "metal streaming"; the undervaluation of mineral exports; making excessive interest deductions; and other techniques that hinder the process of establishing the taxable amount and ensuring its collection.

SOCIOECONOMIC BENEFIT OPTIMIZATION

The third pillar of the MPF aims to promote the conversion of extracted natural capital into other forms of capital, especially human capital, through promoting policies to optimize the socioeconomic benefits of mining for local, regional, and national stakeholders. The policy recommendations under this theme are divided into the following categories:

- 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 that 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 levels of occupational health and safety through appropriate standards.
- Optimizing employment and business opportunities at and around the mine site with the objective of ensuring economic growth beyond the life of the mine.
- Addressing potential safety issues.
- Considering the respect of human rights, Indigenous People, and cultural heritage through norms that are aligned with international laws and standards.



KEY LAWS AND POLICIES

- The Constitution of Panama (1972, amended in 2004)
- Code of Mineral Resources (1963)
- Labour Code (1971)
- General Environment Law (1998)
- Executive Decree 123 (2009) Regulation of the Process of Environmental Impact Assessments

STRENGTHS

The EIA takes social considerations into account. The Cobre Panamá EIA contains 115 social commitments

The General Environment Law requires the EIA to contain social considerations. The EIA must describe the characteristics of foreseeable social impacts and corresponding prevention or mitigation measures. Decree 123 of 2009 establishes the minimum content of the EIA. It requires a description of the socioeconomic environment, including land use in adjacent sites; population characteristics; demographic, social, and economic indices; mortality and morbidity rates; employment indices; local perceptions of the project (through the citizen participation plan); and historical, archaeological, and cultural sites, among others (art. 26).

The EIA for the contract law governing Minera Petaquilla, S.A., now Minera Panamá, S.A., contains 115 social commitments, which are audited every three months. However, these commitments lack detail, which hinders auditing. Minera Panamá, S.A. has education programs, local purchasing to meet the site's food demand, agroforestry programs, forestation with native species, and joint water-quality measurements, among others. Vocational education programs (not necessarily mining-related) are conducted jointly with the government through an agreement with the National Institute of Vocational Training for Human Development for members of the communities living around the mine.

There is government–university interaction and protection for mining-related courses

There are strong synergies between the DNRM, CAMIPA, and Panamanian universities (the Technological University and the National University of Panama) offering mining-related courses to boost mining-related education.

Education for mining has been promoted since 1980, starting with a technical degree in geology. Student numbers increased between 1985 and 1990. Currently, there is a Geological Engineering course with approximately 120 students enrolled between the two universities, aiming to meet demand from Minera Panamá, S.A. Professionals quickly find employment in the private sector.

Approximately 20 Panamanians have received scholarships to study abroad, mostly from Minera Panamá, S.A., which offers programs to transform from any engineering subject to mining engineering.

Despite there being a small number of lecturers to teach mining engineering and low student numbers, the close relationship between the government and universities shows a commitment to the growth and professionalization of the sector.

Concessionaires are legally obligated to train Panamanian staff

The Code of Mineral Resources devotes a specific and detailed section to training and knowledge transfer from mining concessionaires to local employees. Article 132 of the code provides that



"concessionaires ... shall provide, at their expense, theoretical and practical instruction and training to Panamanian employees who are to be professionals and skilled workers, in educational institutions and facilities or activities within or outside the country" (translation by the author). Article 130, meanwhile, requires that the number of staff being trained in one year "shall be 10% of the maximum number of foreign employees" (translation by the author). Article 135 is specific about the government requiring programs for unskilled and semi-skilled workers, so mining staff can learn more efficient ways of carrying out mining operations.

The DNRM also receives employment and training reports (art. 100.6), regarding which employees are taking part in training and the relative progress being made (art. 134).

This strategy allows Panama, a country with a small mining sector, to gradually train its nationals, with the goal of having future mines led by Panamanian professionals.

There are local content efforts

The government promotes partnerships to provide opportunities for Minera Panamá, S.A. to be serviced by local suppliers. The Panamanian Autonomous Cooperative Institute (IPACOOP) is currently working toward a public–private partnership in which agricultural and fishing cooperatives can sell products directly to Minera Panamá, S.A. The intention is to allow them to grow so that they can subsequently sell to other customers.

Despite this being only one case, it could serve as an example for new initiatives and a coherent national plan for local content.

National employment issues are addressed in the law and contract laws, and their enforcement is sought

The Code of Mineral Resources imposes a 25% ceiling on numbers of foreign staff and requires the percentage of the total wages bill paid to foreign staff by the operation to be 25% or under (art. 131). Article 100.6 requires the submission of an employment and training report containing a "declaration of the employment number of Panamanians and foreigners" (translation by the author). Also, the EIA requires information on "labour during construction and operation, direct and indirect jobs generated" (art. 26.5.6.2 of Decree 123, translation by the author).

The contract law with Vera Gold contains a clause that requires the company to hire 150 Panamanians for the construction phase, preferably from the municipalities neighbouring the project. It also requires Vera Gold to hire Panamanians once it reaches the production level projected in the feasibility study. The Minera Panamá, S.A. contract stipulates that 25% of employees can be foreign, a measure that was undertaken to comply with technology transfer to Panamanian staff (clause 8). In the construction phase of the mine, at least 700 workers must be Panamanian, preferably from neighbouring towns (clause 6.3).

WEAKNESSES

There is no integration of the mining sector with national/provincial/municipal development plans

It is unknown how the funds from taxes on the Minera Panamá, S.A. project, collected by the Municipality of Donoso since 2011, have been used. They have not been put toward a sustainable development vision for the region or communities.



There is no alignment or coordination between the education and health services provided by the companies and government agencies. Minera Panamá, S.A. responds to requests from communities with no requirement to consult with government agencies.

Socioeconomic planning is limited.

A limited amount of socioeconomic planning is required in the permitting process. While some social considerations are required to be included in the EIA process (see Strengths in this section), there is no requirement in the Code of Mineral Resources for applicants to consider regional or national socioeconomic levels. Also, there is no planned coordination with the state after receiving the project's socioeconomic information.

There are not enough mining professionals to cover private and public demand. There is no plan, and developing one has not been made a priority. There are no mining engineers

Due to the lack of a mining tradition, the DNRM has problems meeting its staffing requirements in the short, medium, and long terms (Organization of American States, n.d.). There are government efforts to professionalize mining (see Strengths), but these have not yet been sufficient to meet the high demand for professionals specializing in large-scale mining in the country.

There is a lack of mine safety regulations. There is no proper inspection, monitoring of findings, or effective sanctions for safety breaches

In general, countries have specific regulations for mining due to the hazardous nature of the activity. Its oversight requires specific technical knowledge in geology and mining that is distinct from other branches of engineering, including knowledge of mine stability and tailings engineering.

In Panama, there is no regulation governing safety in mines, no guides or protocols for inspections, and the highest international standards are not demanded.

There is virtually no technical capacity for the inspection of mining safety issues, such as the safety of work areas or tailings. There is virtually no monitoring of findings.

There are no effective sanctions for mining safety breaches. The Department of Mines and Quarries of the DNRM, which is responsible for the oversight of mines, has no powers, in practice, to sanction companies without authorization from the highest authorities.

As a result, the government cannot reasonably assure the public that complex operations, such as mining, meet the best standards in the sector or that their hazards are under control.

Mining law is very general on risk-management issues

The Code of Mineral Resources, under Title II, Safety Measures and the Prevention of Spills (arts. 113–119), only covers the safe handling of liquids or gases and mitigation measures in the event of an accident. It does not set risk-management standards for the protection of persons and facilities.

Regarding the reporting of safety information, it establishes that mining concessionaires must submit an annual report containing a series of items that it details. Companies are not required to provide information on safety; at most, they are asked to describe in “sufficient detail to determine the diligence with which operations were carried out” (art. 100.1, translation by the author).



Employment obligations are not met in practice

The caps on foreigners working in mining operations laid out in the Code of Mineral Resources are not adhered to in practice, especially in the case of special contracts (contract laws) requested by concessionaires, which do not conform to the obligations of the code. In Contract Law 9 of 1997, for example, only 2% of management posts are filled by Panamanians. In terms of gender, moreover, only 10% of the project's staff are women.

There is no regular public consultation

Public consultation is not required under the Code of Mineral Resources, although it is under the General Environmental Law and Decree 123 through a citizen participation plan. Consultation is only mandatory before the resolution granting the concession for the operation phase. However, in the phases preceding operation (prospection and exploration) and following operation (mine closure and post-closure), there is no obligation to consult with communities, despite the existence of environmental and social impacts during these phases. Applicants propose the environmental category, and MiAmbiente ratifies this choice or not.

There is also no requirement for communities to regularly review the plans arising from the EIA, such as the EMP.

There is no open dialogue with NGOs or Indigenous Peoples

Although civil society and Indigenous Peoples have shown interest in the sector, there is no space for or institutionalization of dialogue with these groups. Projects such as Cerro Colorado are located within Indigenous comarcas and are suspended despite a wish on the part of the private and public sector to potentially reactivate them. And yet, there are no communication channels to discuss their development.

Implementation of the Minera Panamá, S.A. project led to an upswing in discussion with civil society on a national vision for mining. This dialogue was led throughout by the National Council of Private Enterprise (CoNEP) through a multistakeholder round table. Today, there is no interest in maintaining that discussion.

No efforts are made with respect to human rights, international standards, or gender programs for mining

The government does not require mining companies to maintain high standards or adhere to international and national human rights standards. A range of human rights violations has been reported in unregulated operations, such as child labour or the employment of illegal immigrants (this information has not been verified in the field).

The language of international standards is not used, and international standards, such as the International Finance Corporation Performance Standards, are not promoted. There are no specific programs to promote women in mining. In general terms, none of these issues is considered by either the government or the companies concerned..

There is no development or consideration of gender policies

Panama ratified Convention 045 on Underground Work (Women) in 1959, and its legislation (Labour Code, art. 104) prohibits the employment of women in underground mines and in quarries. This hinders the employment of women in mining.



Many countries have ratified Convention 176 on health and safety in mines, which replaced the provisions of Convention 045 by protecting all mineworkers, both men and women. To date, Panama has not withdrawn from Convention 045 or ratified Convention 176.

Also, the MICI has no gender policies or practices for collecting gender information. Neither the law nor the contract laws contain any gender policies.

ENVIRONMENTAL MANAGEMENT

This section of the MPF starts with a declaration of the recognition that ecosystems are of the utmost importance for any society seeking sustainable development.

The themes covered in this section are:

- Proper environmental management of surface and underground water resources by means of appropriate standards that permit the sustainable use of these resources.
- Environmental management to avoid or reduce to the minimum possible adverse effects on biological diversity.
- Environmentally sustainable management of mine wastes, requiring mining companies to design and build chemically and physically stable mining waste facilities for use during both operation and closure. The state should supervise and could hire international experts to check for compliance with international best practices in this area.
- Emergency plans and programs with clear standards should be part of mining projects' environmental assessment studies.

KEY LAWS AND POLICIES

- The Constitution of Panama (1972, amended in 2004)
- Decree-Law 23 of 1963, Panama Mining Code
- General Environment Law (1998)
- Executive Decree 123 (2009), Regulation of the Process of Environmental Impact Assessments
- Decree-Law 35 (1966), Use of Waters
- Executive Decree 57 (2004), regulating the General Environment Law
- National Water Security Plan 2015-2050, Water for All
- Technical Regulation DGNTI-COPANIT 47-2000, Use and disposal of sludge
- Technical Regulation DGNTI-COPANIT 35-2000, Direct discharges of liquid effluents to bodies and masses of surface and underground water
- Technical Regulation DGNTI-COPANIT 23-394-99, Sampling for biological analyses of water quality
- Technical Regulation DGNTI-COPANIT 21-393-99, Sampling to determine the characteristics of water



STRENGTHS

There are standards for the quality of water discharged into natural watercourses

Panama has standards covering the quality of water directly or indirectly discharged into natural watercourses. These standards are set by the Directorate-General of Standards and Industrial Technology (DGNTI) in conjunction with the Panamanian Commission for Industrial and Technical Standards (COPANIT). Some of these technical regulations cover the following topics::

- Use and disposal of sludge.
- Direct discharge of liquid effluents into bodies and masses of surface and underground water.
- Sampling for biological analyses of water quality.
- Sampling to determine the characteristics of water.

An environmental management plan is required, and the plan must be approved

Panamanian legislation requires that the EIA should include an EMP (art. 26.10, Executive Decree 123). The EMP must contain measures to “prevent, mitigate, control, correct and compensate for possible negative environmental effects or impacts” (translation by the author). These must be given in detail and in chronological order, with monitoring, control, and contingency plans. MiAmbiente is required to assess the EIA and the EMP, seeking a technical opinion from the sectoral authority, in this case, the DNRM (art. 40, Decree 123).

The EMP is a good tool for the inspections of mining operations carried out by MiAmbiente in conjunction with the DNRM..

There is a requirement for biodiversity plans and a biodiversity report

The Constitution protects land, river, and marine fauna, as well as the use of woods, lands, and waters, to “prevent their depredation and ensure their preservation, renewal and permanence” (art. 119, translation by the author).

The EIA must contain a description of the project’s biological environment (art. 26.7, Decree 123). This must comprise, among others, a description of flora and fauna and an inventory of vulnerable species and ecosystems.

The EMP contains a contingency plan

Environmental regulation requires that the minimum content of an EIA should include an EMP with a contingency plan (art. 26.10.9, Decree 123). Regulations provide for certain actions in the event of disasters, classifying them as exceptions to facilitate faster action. MiAmbiente creates a historical record of catastrophic events and mitigation requirements during such events (arts. 71 to 74).

Having strategic impact studies for basins is a good precedent

Panama has a National Water Security Plan 2015–2050: Water for All. This is a roadmap for the country to follow for water to improve quality of life, support inclusive socioeconomic growth, and ensure the integrity of the environment (High-Level Committee on Water Quality, 2016). The plan sets out five long-term goals:

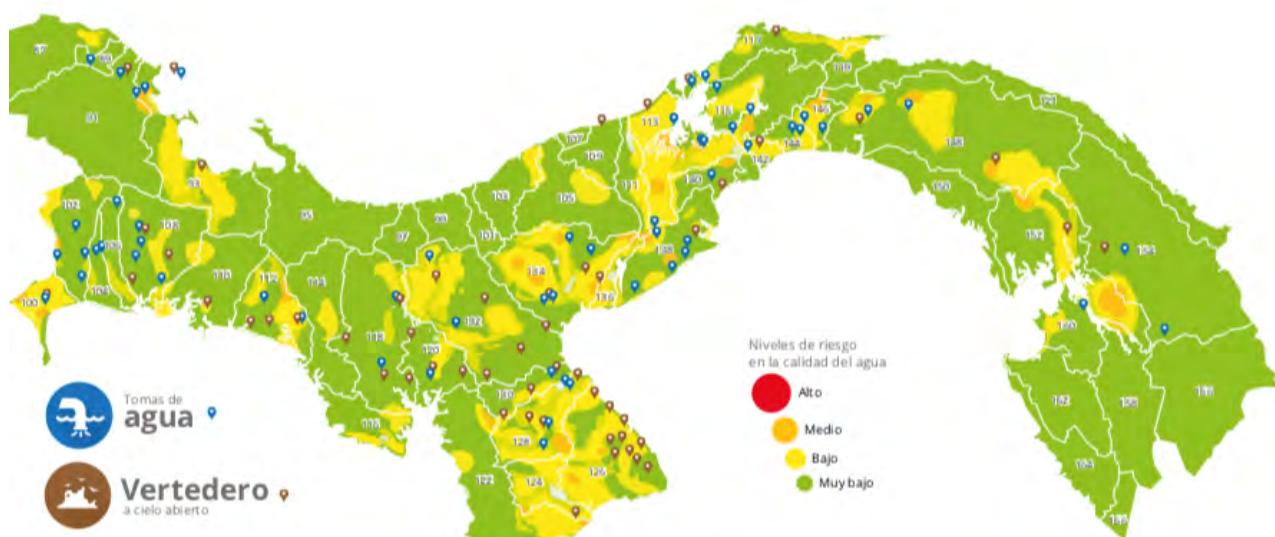
- Universal access to high-quality water and sanitation
- Water for inclusive socioeconomic growth



- Preventive management of water-related hazards
- Healthy drainage basins
- Water sustainability.

Under this plan, Panama has initiated research and work to develop healthy drainage basins by 2050. The plan includes the monitoring of 3,383 points nationally to establish a baseline of water quality for human consumption (High-Level Committee on Water Quality, 2016). As part of this project, the map in Figure 4 was drawn up to show risk levels for every basin in the country.

FIGURE 4. DRAINAGE BASINS OF PANAMA



Infografía 34. Mapa de niveles de riesgo de calidad de agua, tomas de agua y vertederos en las cuencas hidrográficas del Panamá

Nº	Río principal	100	Palo Blanco	108	Chiriquí	116	Caté	126	Guararé	142	Mataínillo	158	Tucuil
87	Sixola	101	Veraguas	109	Miguel de la Borda	117	Cuango	128	La Villa	144	Juan Díaz	160	Mareá
89	San San	102	Chiriquí Viejo	110	Fonseca	118	San Pablo	130	Parita	146	Pacora	162	Sambú
91	Changuinola	103	Río Belén	111	Indio	119	Mandinga	132	Santa María	148	Bayano	164	Jaqué
93	Guararé	104	Escárceo	112	San Félix	120	San Pedro	134	Río Grande	150	Chirán	166	Juradó
95	Criaramba	105	Coclé del Norte	113	Lagarto	121	Cartí	136	Río Antón	152	Sabanas		
97	Calovébora	106	Chico	114	Tabasará	122	Río Quebro	138	Chame	154	Chucunaque		
99	Concepción	107	Platanal	115	Chagres	124	Tonosí	140	Caimito	156	Tuira		

Source: High-Level Committee on Water Quality, 2016.

In line with the principles of the General Environmental Law, to incorporate the environmental dimension into the government's economic strategies, these strategic studies are a good precedent for decision making around any economic activity—in our case, in the mining sector. This is especially true when deciding whether or not to award concessions.

WEAKNESSES

Land-use planning shows a lack of coordination between protected areas, mining concessions, and applications for collective land

The General Environment Law promotes the scientific management of the national territory so that the ground and spaces are used in a way that respects ecological, social, and cultural skills, and the land and its natural resources are exploited in the optimal and most rational way (art. 6).

In practice, however, we found no evidence of the existence of land-use management practices appropriate to sustainable development. Particularly in the mining sector, there is no coordination

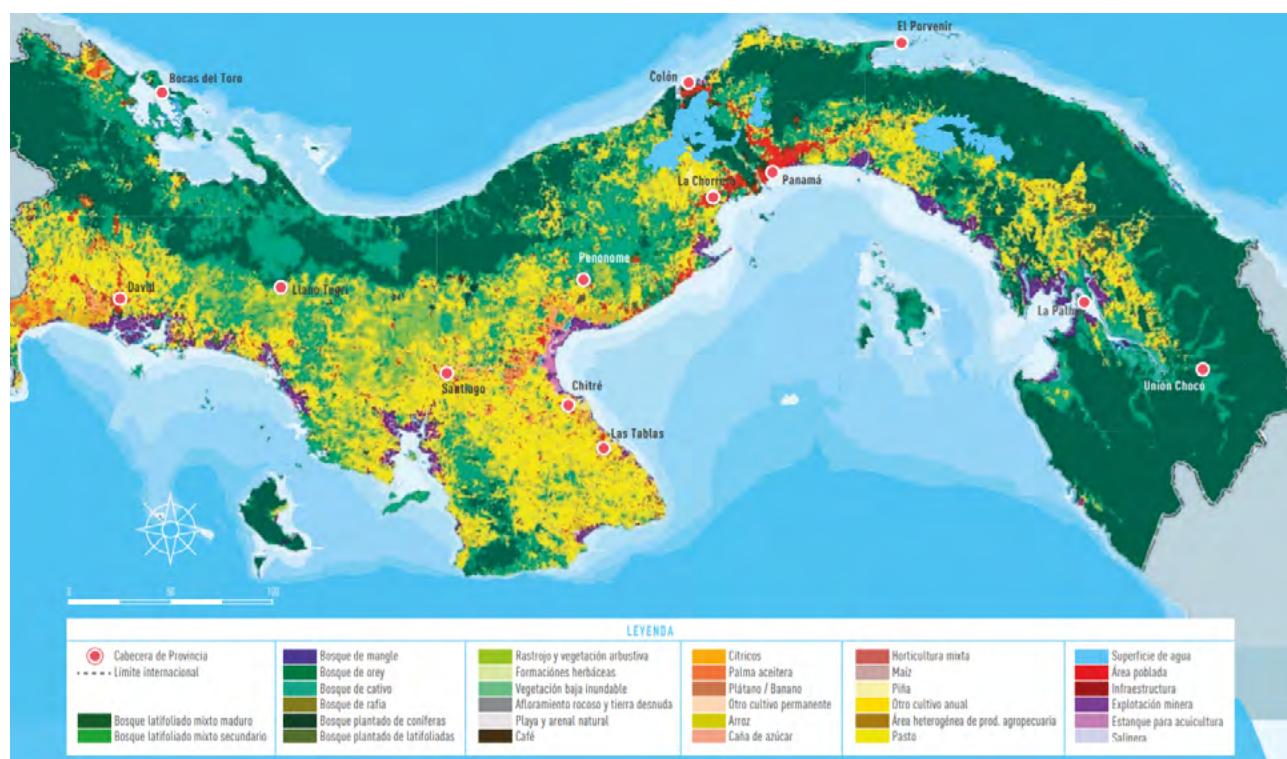


between the DNRM and MiAmbiente, for example, in the management of protected areas or the determination of collective land.

This gives rise to mining concessions overlapping with protected areas or collective lands, as well as protected areas or collective lands being declared in places with existing mining concessions. For example, the Donoso Multiple-Use Area, which overlaps with the concession under Contract Law 9 of 1997, was declared in the period 2009–2012, many years after the concession was allocated (MiAmbiente, 2014).

It is important to know the intended purpose of a given region in order to properly develop its full potential.

FIGURE 5. MAP OF FOREST COVER AND LAND USE IN PANAMA



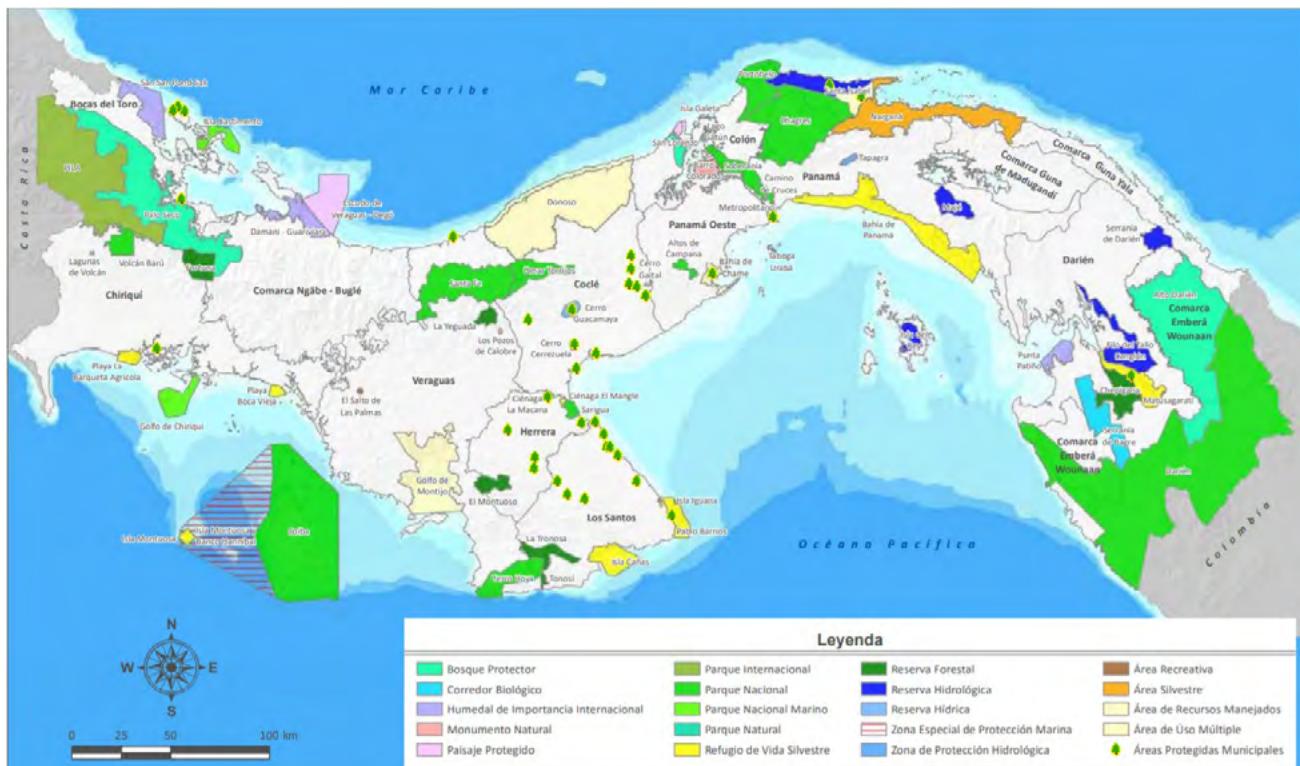
Source: MiAmbiente, 2018.

The legal framework does not prohibit mining projects in protected areas

Panama is considered a biodiversity power in the world. More than 30% of its territory has been declared as protected areas (MiAmbiente, 2018). Panama's government and civil society have made great efforts to ensure that the exponential economic growth of recent years has taken place without loss of biodiversity. Protected areas are managed by the SINAP.



FIGURE 6. PROTECTED AREAS OF PANAMA



Source: MiAmbiente, 2018.

Protected areas are essential for the conservation of the natural biodiversity of a given area. In general, biodiverse ecosystems are fragile; mining operations, which tend to be invasive in these respects, are prohibited, or the mitigation measures to conserve ecosystems are strict.

Panamanian legislation does not explicitly prohibit mining projects in protected areas. If a mining project partially or totally includes territories declared to be protected areas, it is required to submit the EIA to MiAmbiente's Directorate of Protected Areas and Biodiversity (DAPB) or relevant regional directorate for evaluation and viability approval (Resolution DM-0233 of 2019 and art. 26, Decree 123). When the DNRM receives the application, it checks whether it overlaps with protected areas.

In practice, the Minera Panamá, S.A. mine operates in the Mesoamerican Biological Corridor. The corridor is a set of protected areas coordinated between the governments of Central America to maintain the biodiversity of the entire corridor through low-impact developments. Three protected areas overlap the project: the Donoso Multiple-Use Area, the Omar Torrijos Division General National Park, and the Santa Fe National Park. As part of its environmental commitments, the company undertook to financially compensate the state for the environmental damage. This money was to be used for remediation. However, there are currently allegations that the forest management plan is not being fulfilled and that the company is more than PAB 11 million behind in its payments for implementation of remediation programs. The company claims that it is carrying out the remediation work directly (Ohigginis, 2019).

This situation calls into question the effectiveness of the state in protecting biodiversity against invasive economic activities such as mining. Also, having been a subject of debate prior to the commencement of operations, any degradation due to a failure to implement remediation programs could damage the reputations of the sector and government in managing it effectively.



Panama has weak environmental enforcement and low penalties

The General Environmental Law provides two mechanisms for the implementation of projects and mitigation of environmental impacts: the EMP and environmental audits. The EMP is carried out by the applicant for the environmental permit, and the audits are performed by MiAmbiente or persons authorized by MiAmbiente.

With respect to environmental audits of mining projects, there is a lack of knowledge of mining processes on the part of the auditors, which translates to weak environmental enforcement by the government. Furthermore, the DNRM does not have sufficient knowledge of mining processes to compensate for the lack of knowledge on the part of the environmental auditors when conducting joint inspections. In addition, these audits are performed by regional actors responsible for all kinds of environmental auditing, not just mining.

MiAmbiente asks for information on the monitoring performed by the companies but not its analysis. In other words, it only asks for the numbers and not the reports that interpret the monitoring values. This further exacerbates the difficulties of inspection and early detection of possible negative impacts on the environment.

There are complaints in various sectors of the country—for example, there is a lack of supervision of underwater sand concessions near the Chame Peninsula that extract material from outside the concession area, resulting in erosion of the peninsula (Testa, 2019) and even obliterated islands.

Furthermore, environmental breaches attract low penalties. For example, in the event of detection of a breach in environmental audits and EMPs, fines range from PAB 300 to PAB 10,000, depending on the type of infraction (Executive Decree 57, of 2004).

There is poor water monitoring due to a lack of inspection

While the country has a series of standards for the quality of water that can be discharged into natural watercourses and initiatives such as the National Water-Quality Monitoring Network, which in 2014 had 277 sampling points in 100 rivers (MiAmbiente, 2014), there is an evident lack of inspection and monitoring of these waters.

For example, MiAmbiente commissioned the National Association for Nature Conservation (ANCON) to carry out a monitoring study of water quality in the area of influence of the Petaquilla Gold goldmine in 2012. The study found no evidence of a reduction of fish populations in the waters studied. The results, however, are specific to a period of time, due to the absence of continuous monitoring. There is a need to build a detailed baseline and establish protocols for permanently monitoring the quality of resources (MiAmbiente, 2014).

Companies submit a Monitoring Plan that is approved by MiAmbiente. To demonstrate fulfillment of their plans, companies submit monitoring results which, more than anything, are a large amount of data with no analysis or conclusions. MiAmbiente simply trusts what the concessionaires submit, as they have little capacity for checking due to a lack of both staff and adequate training.

Lastly, the monitoring data that the companies provide on water discharges is not made public or shared with communities near the mining operation.



The government is not acting in a way that accords with the complexity and high risks associated with tailings and waste dumps

Decisions around structures built to contain mining wastes and their locations need careful consideration. Many of these early decisions are irreversible.

The government is not acting in accordance with the complexity and high-impact risk of structures for tailings deposits, waste rock dumps, and leachate residue, which all contain huge mining deposits. There are no requirements or standards for the design or type of construction, and neither are there any standards for regular or permanent structural monitoring for operation or after closure.

The government does not contemplate the use of external consultants with expertise in the construction, operation, and closure of these enormous mining deposits—either in legislation or in practice.

In the absence of legislation, mining companies are not required to carry out continuous monitoring, produce assessments of the results for presentation to the authorities, or publish regular reports that are easily accessible to the public.

Lastly, the government has not yet become aware of the risks and severity of the accidents that may happen as a result of its lack of knowledge, despite the environmental damage that has already occurred from these structures in Panama. The government, therefore, cannot ensure the chemical and physical stability of these structures.

Although the EMP does contain an emergency plan, there is no requirement to update it or coordinate it with communities or local governments

A project emergency plan is a required component of the EMP. However, there is no requirement that this plan be updated, and there is no consultation and no requirement for ongoing cooperation with local stakeholders and governments. Because of this, the government cannot ensure that concessionaires are monitoring the effectiveness and response capacity of the emergency plan in coordination with communities and all levels of government. In addition, it cannot ensure that emergency plans are comprehensive or meet current best-practice standards, such as the United Nations Environmental Programme's Awareness and Preparedness for Emergencies at Local Level.

POST-MINING TRANSITION

Mining sector management that is compatible with sustainable development requires every mining project to have closure plans in place from the very start of the mine's useful life. To this end, this pillar's recommendations focus on the following topics:

- Ensuring that closure plans prepared by mining companies are of a high standard and are updated regularly.
- 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

- Decree-Law 23 – Environmental Impact Assessments (1963)
- Code of Mineral Resources (1963)



- Law 41 – General Environment Law (1998)
- Executive Decree 57 – Environmental Audits and Environmental Compliance and Management Programmes (PAMAs)

STRENGTHS

There is incipient leadership with respect to abandoned mines

Panama does not have a good history in terms of abandoned mines (Mina Santa Rosa, Petaquilla, and Remance, for example). The government is starting to become aware of this and is taking the lead on addressing it and finding solutions. The first step toward achieving good mine closures in the country has been to create a national register of abandoned mines.

WEAKNESSES

There is no specific regulatory framework

There is no specific legal or regulatory framework requiring mining projects to include plans for closure and post-closure of operations or to present these plans before approval of a concession is granted by government institutions. The government should have a robust legal and regulatory framework for effective management of mines throughout their life cycles, including the post-operation transition.

Closure is mentioned in article 28 of the General Environment Law, but not in a way that is specific to mining. Article 115 of the Code of Mineral Resources only requires concessionaires to restore the surface of the ground to the condition it was in before construction of the mining project. No mining operation can be considered closed if that condition is not met.

Neither the MICI nor MiAmbiente requires adherence to internationally accepted guidelines or best practices in the planning of mine closures.

A number of closures that have been poorly executed and poorly overseen by the government that are controversial and public (such as Petaquilla Gold, with environmental and social liabilities, and the Remance and Santa Rosa projects) are at the root of the public's distrust of the sector. Despite this, large-, medium- and small-scale mining projects are still allowed to open without a closure plan or a realistic guarantee to cover closure costs.

There is no institutional capacity to monitor plans for closure and the post-closure transition

Neither the DNRM nor MiAmbiente has the capacity to monitor and enforce the legal and regulatory frameworks related to the closure and post-closure of mining operations. The staff of the DNRM does not have the academic background or sufficient experience to evaluate a mine closure plan, especially in the case of large-scale mining, such as in the case of Cobre Panamá. Closure plans are overseen tangentially as one more component of EMPs.

There is no obligation to consult with communities about closure plans

There is no framework that specifically requires public participation in the development and objectives of closure plans. Effective planning for the post-operation transition includes communities in the planning and implementation actions. Broad-based participation aligned with local and national development plans helps to ensure that decisions for after closure are supported by stakeholders and are easier to implement and manage.



Public participation in Panama is required as part of the preparation of the EIA (Title IV, Decree 23), which states in general terms that any activity, works, or project requires a closure plan; however, there are no specific requirements for mining.

Furthermore, citizen participation laid down in the environmental policy framework is consultative rather than binding. It deals with the whole project but gives little specific importance to mine closure.

The quality of closure plans that is required is inadequate

The DNRM does not ask mining companies for detailed closure plans with the detailed engineering plans for implementation of the closure. There are no instructions for the submission of mine closure plans describing the technical and economic specifications to be submitted by the company for evaluation and approval by the directorate. It validates what the company presents with no detailed analysis.

The guarantee required may not be sufficient for the project

Closure plans must contain adequate financial guarantees for closure and post-closure expenditures. The government should enact legislation, regulations, and guidelines on this subject.

The only guarantee in the Code of Mineral Resources covers obligations arising from sums owed to the government in the exercise of the concession (art. 7).

In Panama, guarantees are governed by Decree-Law 23, which MiAmbiente applies not only to mining but to any activity or project. The guarantee includes funds for the closure.

The guarantee is only demanded if it is considered relevant "in cases wherein evaluation of the assessment requires it" (art. 70). The guarantee is established according to the length of operation of the project, plus an additional period of coverage from the termination of activity. The basis for the calculation and amount is provided by the applicant for the concession on the basis of the value of the project, the types of environmental impacts identified in the EIA, and measures proposed in the environmental management plan. MiAmbiente reviews, comments on, or approves the guarantee.

There are no significant guidelines or regulations on the following:

- i. How to make realistic estimates to cover the cost of plans for outstanding work, including premature closure cases and situations whereby independent contractors have to be commissioned for closure plans because the mine operator cannot or is not available to complete the work.
- ii. Obligations, insurance, etc., with their corresponding details and conditions.
- iii. Qualified and approved financial institutions with an obligation to maintain the guarantees.
- iv. Whether the government has the right to obtain immediate and unrestricted access to the total amount of financial guarantees.
- v. The mechanism for authorizing the use or release of guarantee instruments as the various work programs or other requirements are carried out or fulfilled.

In practice, application of the law or contract negotiations has been weak insofar as closure guarantees are concerned. The contract under Law 9 establishes a guarantee of only USD 3 million for investments over USD 6 billion.



There is no requirement to use external experts

The government does not have the internal capacity to validate risk assessments associated with closures, studies, or high-risk activities associated with the implementation of closures, such as the management of acid mine drainage, hazardous waste disposal, etc.

Mining companies are not required to use external experts familiar with international standards and practices for the development of closure plans or for validating closure risk assessments.

The government provides no proper leadership for abandoned mines or preparation for untimely closures

The state does not offer consistent and adequate leadership in resolving the issue of abandoned mines and environmental liabilities from mining. In the case of Petaquilla, the geotechnical remediation used by MiAmbiente was incorrect, despite the considerable funds used.

Despite small-scale efforts in recent months (see Strengths), the country has no regulations or plans to develop technological solutions (such as reprocessing mining waste) for abandoned mines and environmental liabilities. Taking active charge of environmental liabilities would send a positive signal of its commitment to sustainable mining, most especially to the public.

◆ ARTISANAL AND SMALL-SCALE MINING

The MPF aims to improve the conditions for miners working outside the legal framework and to improve the contribution of ASM to sustainable development. The policy recommendations under this pillar are divided into the following categories:

- Legal formalization of ASM through appropriate legal frameworks, technical support, and formalization strategies.
- Integration of ASM into the formal economic system through the promotion of savings and investment, appropriate and transparent income policies, certification programs, and collaboration with the larger mines.
- Reduction of social and environmental impacts through the provision of technical training, minimum health and safety standards, and anti-child labour programs; promotion of the role and safety of women in ASM; and rural-development and job-creation policies to promote alternative livelihoods.

KEY LAWS AND POLICIES

- Criminal Code
- Law 121 of 2013 on Organized Crime
- Minamata Convention

STRENGTHS

There is very little ASM in Panama, and mercury is rarely used

The Panamanian ASM sector is small compared to other countries in the region. The numbers of small-scale and artisanal miners can be counted in the hundreds. For the period 2017–2019, there are data on 13 illegal mining events in Darién and five in West Panama, Metropolitan Area, and East Panama. These involved the extraction of tuff, sand, gravel, and gold.



Panamanian ASM can be divided into two sectors: rock and sand quarries on the one hand and alluvial gold mining on the other. Each sector has its particular challenges.

Alluvial gold mining is scattered through the dense Panamanian jungles (Darién, in the central north of the country), and the little information available about these operations is insufficient to check whether mercury use is extensive. The size of the subsector would suggest that it would not yet be at comparatively alarming levels.

The Public Prosecutions Office is taking the lead on illegal mining

The Public Prosecutions Office has been a member of the Ibero-American Association of Public Prosecutors' Illegal Mining Network since March 2019 (AIAMP). Membership of the network requires the Public Prosecutions Office to collect and share information and keep the AIAMP informed of illegal mining offences.

To date, a roadmap for Panama has been drawn up, and the Public Prosecutions Office is expected to regularly present progress to the AIAMP. Among other advances, the Public Prosecutions Office is now pursuing not only the environmental crime of illegal mining but also economic crimes, especially money laundering (investigating sources of income, final beneficiaries, accounts, etc.) (AIAMP, 2019).

In the Panamanian Criminal Code, illegal mining is not listed as a specific crime but falls under an offence against natural resources (art. 399, Criminal Code), which makes illegal mining an environmental crime. From the viewpoint of the Illegal Mining Network, illegal mining in Panama is related to organized crime, and higher penalties may be sought under Law 121 of 2013 on Organized Crime.

These efforts have encouraged coordination with other agencies. For example, once an illegal mining activity is detected, the Public Prosecutions Office notifies the DNRM, which collaborates with MiAmbiente and SENAFRONT in an inspection visit to determine the severity of the crime. In most cases, the site has been abandoned by the time the inspection visit takes place. Also, MiAmbiente and the National Border Service (SENAFRONT) have provided information on illegal operations in various parts of Panama.

Panama approved the Minamata Convention on Mercury

In 2015, Panama approved the Minamata Convention on Mercury (Global Environment Facility, n.d.), taking on the responsibility of enforcing the convention throughout the national territory. This includes the reduction and, when feasible, elimination of the use of mercury in artisanal and small-scale gold extraction.

WEAKNESSES

There is no specific regulation or categorization of ASM

Neither the Code of Mineral Resources nor any other legal framework specifically regulates small-scale and artisanal mining. Thus, there is no difference in the regulations between large-scale and small-scale or artisanal mining. This hinders the formalization of informal mining since small-scale activities would find it difficult or impossible to meet the requirements for large-scale concessions.

The importance of regulating ASM was highlighted by the round table initiative with multiple stakeholders, promoted by CAMIPA.



There are no plans to formalize, manage, or oversee informal operations

The Government of Panama does not have a plan for formalizing informal operations, be they in quarries or alluvial gold mining. Some larger quarries (there are no guidelines for differentiating these from small-scale mining) operate under concessions, but others operate informally.

It is difficult to monitor illegal mining in the jungle due to the density of the forest and the difficulty of access. Quarrying, however, is more accessible. In our field visits, we found that, near the quarries that have been granted concessions, there are others that are intentionally operating when the authorities are not inspecting. None of these informal operations is monitored by the MICI. Despite receiving reports of informal and illegal operations, there is no fitting response or plans to formalize them.

The Public Prosecutions Office is the only agency dealing with the ASM subsector, but it focuses solely on prohibiting illegal activities. No work is done from the standpoint that small-scale or artisanal mining can be drivers of rural economies. The work done by the Public Prosecutions Office should be strengthened by DNRM action. The Public Prosecutions Office does not currently have knowledge of and cannot access information on which operations are legal concessions and which are illegal activities.

There is no control over illegal activities conducted as part of ASM

Alluvial gold mining is rife with illegal activities, such as child labour, pollution, and misuse of watercourses, illegal immigration (Colombians, Nicaraguans, and Venezuelans, although there are Panamanians too), and dangerous extraction practices using dredgers. In general, this is not a subsistence activity but one closely related to drug trafficking, money laundering, and illegal mining practices in neighbouring countries.

The MICI has no consistent monitoring or law enforcement programs to reduce or eliminate serious practices, such as child labour, in small-scale and artisanal mining operations. There have been reports and images of children working in mining operations, diving next to the dredgers to extract alluvial gold.

Work is ongoing to find out whether alluvial gold operations are connected to illicit activities such as money laundering, drug trafficking, human trafficking, illegal immigration, etc. As for mercury use, there is practically no information. Mercury was found in Puerto Obaldía, on the border with Colombia. Mercury trafficking from Mexico and Colombia, stored in the Colón Free Zone, is also being investigated.

The Public Prosecutions Office is moving forward thanks to the AIAMP and SENAFRONT and confiscating equipment in its area of influence (especially in the Darién). However, the government needs to make a coordinated effort to eliminate and control the progress of these serious practices and to convert illegal mining into ASM that supports sustainable development.

There is no training by the government on environmental and social issues in relation to ASM, and there are no occupational health and safety programs

For mines run under legal concessions, there are no government efforts to train miners and mine owners in environmental and social aspects of operations management or in good occupational health and safety practices.



6.0 ANALYSIS OF STRENGTHS AND WEAKNESSES

Panama has a clear presidential campaign goal: "Guarantee that industry plays a proper part in economic development, ensuring respect of environmental laws and regulations and protection of the rights of communities, based on effective and transparent governance of the mining sector, which complies with the role of oversight of mining activities" (Cortizo, 2019, translation by authors). This goal is aligned with the recommendations of the IGF MPF.

Regarding the first pillar of the MPF on the legal and policy environment, Panama has integrated environmental and social impact assessments that describe not only the negative impacts but also the opportunities generated by the sector. Indigenous Peoples and cultural heritage are taken into account in the permitting system. Environmental legislation also requires the implementation of a citizen participation process for mining projects.

However, the legislative and policy framework is weak. It has a Code of Mineral Resources that is outdated in terms of international best practices, and it lacks specific regulations for the sector, including mine safety, the environment, mine closure, and post-closure. It also fails to differentiate for ASM. Geological information is inadequate and difficult to access. The absence of a vision or mining policy that states whether or not Panama wishes to be a mining country hinders government decision making and the permitting system, which, to now, has been unclear, inconsistent, and with little transparency, generating a perception of legal insecurity on the part of investors in the sector.

Regarding the second pillar, the tax system, the legislation enables municipalities to directly collect their taxes, and part of national and municipal tax revenues must be distributed in communities for sustainable development purposes. Both measures support local development. The DNRM has professional staff with long-term experience in the country, enabling informed decision making in the sector. But the tax system has some challenges, such as a lack of transparency and alignment with national and local development strategies with regard to the distribution of financial benefits. The capacity to interpret and supervise contracts is weak, which causes the state to bear losses. Also, the auditing and collection of taxes by the municipalities is inadequate, creating situations that support illegal activities and weak tax collection.

Socioeconomic benefit optimization, the third pillar of MPF, has strengths with respect to the attention it receives in the law and contracts, as well as the employment and training of Panamanians.



There are also good synergies between universities, the government, and companies. Despite Panama being in the early stages of the industry, there are efforts to meet demand. Similarly, the EIAs and EMPs have a number of socioeconomic requirements that inform the government to manage communities that neighbour mining projects.

On the other hand, Panama should strengthen control of mine safety; align each concession's government objectives with national, provincial, and local development plans; improve dialogue with civil society and the consultation process; and work on the supply of professionals in order to meet the quotas of Panamanians to work in mining operations.

For the fourth pillar of the MPF, environmental management, the general legal framework is extensive on environmental stewardship due to the detailed nature of the EIA requirements. However, there is no mining-specific environmental legislation or guidelines detailing what applicants for concessions should submit. Panama is deeply aware of its biodiversity and water resources and the importance of its conservation. Possibly the most critical issues to be addressed are the inspection of mining-related environmental issues, such as solid waste management, water monitoring, and adequate emergency plans. Any failure in these areas could lead to negative public attention for the sector and liability on the part of the government. The lack of adequate land-use planning and coordination between concessions, protected areas, and Indigenous territories also creates difficulties in the allocation of concessions.

Regarding the fifth pillar, the post-mining transition, although some timid efforts have been made to deal with abandoned mines, a systematic approach to mine closure is needed. Mine closure is not addressed in mining or environmental legislation. The reference to closures in environmental legislation equates the complex process of closing a mine with the closure of projects in any other industrial sector. To date, companies are under no obligation to submit a detailed closure plan, and the financial guarantees for closure are insufficient. There have been several cases of poorly closed mines in Panama, and, in those cases when the state has tried to act, it has not done so adequately.

With respect to ASM, the final pillar of the MPF, Panama has the advantage of a little-developed ASM sector; it has signed the Minamata Convention on Mercury; and it is starting to vigorously manage ASM through the Public Prosecutions Office. However, the fact that it is little-developed does not mean that there are no serious practices in the sector, such as child labour, illegal immigration, and links to drug trafficking, which the government urgently needs to address. The lack of specific regulations differentiating ASM from medium- and large-scale mining is a disincentive for informal operations to become formal.

Overall, Panama is on the eve of development in the mining sector. There is also one large-scale operation that urgently needs proper oversight, as well as the traditional quarries sector.

The biggest obstacle facing responsible mining in Panama is the lack of a political decision about whether Panama wishes to be a country open to new mining investment or simply to manage the sector as it currently stands. If it opts for the status quo, the greatest challenge will be the lack of training of government staff to oversee the sector. If the decision is taken to attract new investment, Panama will need updated legislation that specifically addresses the management of new, large-scale concessions. Also, ASM should be addressed in order to prevent the uncontrolled growth of illegal mining.



7.0 RECOMMENDATIONS

Improvements can be made in Panama through the six pillars of the MPF. The government's desire to participate in this assessment process reflects its willingness and openness to improve governance of the sector and ensure that it contributes more fully to sustainable development in the country. There are certain challenges at the macro level, such as the lack of a clear vision for the mining sector and whether to maintain the sector at its current size or to actively promote mining investment in the country. Whatever decision the government makes, substantial improvements will have to be made to the texts and implementation of the regulatory framework, whether for mining in its current state or for a potentially expanded mining sector.

Although there are several improvements to be made in the ASM sector, this has not been prioritized due to its small size in comparison with other countries. This small scale, however, will make it manageable if efforts are made. There is also room for improvement to optimize socioeconomic benefits with respect to local content, employment, and relationships with communities and Indigenous Peoples.

This list of recommendations is prioritized according to the greatest challenges for effective governance of the sector.

PRIORITY 1: LEGAL AND POLICY FRAMEWORK

Develop a mature and modern legislative and policy framework for the mining sector that provides clear lines of obligations for both governments and companies and a vision of how the sector will contribute to the sustainable development of the country.

A mining policy promotes public–private dialogue and will ultimately help to define whether Panama seeks to attract new mining investment or to maintain the status quo in terms of the number of operations. It will strengthen regulation and oversight in the areas mentioned. A mining policy to attract new high-quality international investment requires a regulatory push to rise to international standards.

Whatever the government's vision, the Panamanian legislative framework requires modernization to international best practices. These include, among others:

- (i) Modernization of the Code of Mineral Resources.
- (ii) Creation of specific environmental and social regulations for the mining sector.



- (iii) Creation of specific health and safety regulations for the mining sector.
- (iv) Regulation of citizen participation for every phase of the mining cycle.
- (v) Creation of specific regulations to cover closure and post-closure planning in the mining sector.
- (vi) Creation of differentiated regulations for ASM.
- (vii) Incorporation of a gender-inclusive focus in regulation and policy.

Lastly, there is a need to review international best practices and experience with respect to an institutional framework for the mining sector. If the government decides to promote investments in mining, the institution responsible for governing the sector must have a corresponding vision.

PRIORITY 2: MINE CLOSURES

Panama's leaders and the general public need to become aware of the importance of mining projects having arrangements for closure and post-closure that meet the highest international standards. There must be no doubt that any country that intends to carry out sustainable mining must have clear, precise legislation and regulations governing the mining companies' obligations with regard to the closure and post-closure of mining projects. A lack of such specific legislation will absolutely result in increasing environmental and social liabilities from mining. The country will not be able to take on the high costs of these liabilities, but this situation can be avoided by having clear legislation in this regard. Closure and post-closure form part of a mining project and must be included in the project's investment costs.

It is essential that legislation and regulations for closure and post-closure include an obligation for mining companies seeking to develop a mining project in the country to deposit an adequate financial guarantee sufficient to cover all investments and costs of the project's closure and post-closure.

Mining closure and post-closure legislation must include, at a minimum:

- Preparation of the closure and post-closure plan: For this to be effective, the government must draw up very detailed guidelines.
- Process: It must clearly state what authority is the arbiter, along with deadlines and claims.
- Regular review: It must include regular review of closure and post-closure plans. The usual review period is five years.
- Costs of closure and guarantees: This must include a requirement that companies submit their determination of closure costs in detail in order to correctly calculate the guarantee amount to be deposited. It is very important to use guidelines for this matter.
- Closure audits: External, independent audit mechanisms for implementation of the closure plan must be established.
- Closure plans for ASM: These must incorporate some kind of closure plan for ASM. Due to their size and financial resources, such projects need special treatment. This will ensure that all mining complies with regulations for closure and post-closure.

In parallel with this, in order to implement specific closure and post-closure legislation, training will be needed by the staff of the DNRM and the oversight agencies, in coordination with the mining institution, to monitor the closure.



PRIORITY 3: ENVIRONMENTAL STEWARDSHIP AND SOCIOECONOMIC BENEFIT OPTIMIZATION: INSPECTION

For a mining project to be developed sustainably, it is very important not only to have good regulation governing a project's sustainability (see Priority 1), but also good technical and safety inspections of operations. Otherwise, the legislation is of no value to concessionaires, and the government runs the risk of environmental or health and safety disasters. Panama has historically had its share of such disasters, a point constantly highlighted by society.

The government needs to properly train its officials to oversee both mining and environmental matters. These matters include monitoring water, the structural stability of mines, solid waste management (especially tailings), biodiversity management, and emergency programs.

In addition, international experts should be available for hire to support the implementation of specific aspects of regulations. These experts would also be able to share their knowledge with officials, with a view to bringing such services in-house at a future date. .

PRIORITY 4: FINANCIAL BENEFIT OPTIMIZATION

The Panamanian government's desire to have mining investments contribute to state resources is clear, all the more so in light of the Cobre Panamá mining project being on stream. However, if the government does not have an institution with the capacity to effectively collect mining taxes, canons, and royalties, it will not receive the corresponding cash benefit.

Furthermore, if there is no clear and transparent procedure for distribution and use of the resources from mining, these may be absorbed into general public expenditures without achieving the goal of mining bringing a balanced development benefit to both local and broader communities.

Some of the recommendations for optimizing the financial benefits of mining are:

- Join the EITI initiative to promote transparency, good governance, and accountability on the use of mining revenue.
- Fully coordinate the tax-collecting institution (the DG) with the mining authority (the DNRM) so that they can offer mutual support in understanding mining projects from technical and financial viewpoints.
- Train the DGI and customs staff responsible for inspecting mining companies to have a full understanding of mining processes and the mining business.
- Train the staff of the DGI, the DNRM, and other relevant institutions on the operation of contracts of sale of mining products.



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ANNEX 1. LIST OF STAKEHOLDERS CONSULTED

GOVERNMENT

- National Directorate of Mineral Resources, Ministry of Trade and Industry (DNRM, MICI)
- Ministry of Environment (MiAmbiente) – Water security, Climate change, Biodiversity, Mining Projects Assessment
- Ministry of the Economy and Finance
- Ministry of Social Development – Gender
- Administration of the Panama Canal
- Public Prosecutions Office - Environmental Crimes
- Town Hall of Tonosí

CIVIL SOCIETY

- Ancón
- Environmental Advocacy Center (Centro de Incidencia Ambiental, CIAM)

COMMUNITIES

- Guna Yala
- Río Quema

UNIVERSITIES

- Technology University of Panama
- National University of Panama

PRIVATE SECTOR

- Mining Chamber of Panama (Cámara Minera de Panamá, CAMIPA)
- Cobre Panamá
- Vera Gold
- Minera Cerro Quema
- Agregados y Minerales, S.A.

OTHERS

- Private consultants



ANNEX 2. LIST OF LAWS AND POLICIES REVIEWED

CONSTITUTION OF PANAMA, 1972, AMENDED IN 2004

LAWS

- Code of Mineral Resources, 1963
- Law 13 of 2012 reforming the Code of Mineral Resources for metallic minerals
- Law 55 of 1973
- Law 109 of 1973, on non-metallic minerals
- Law 32 of 1996, on ecological balance and the proper use of mineral resources
- Health Code - Law 66 of 1947
- Law 106 of 1973 on the Municipal Regime
- Tax Procedure Code – Law 76 of 2019
- General Environment Law 41 of 1998
- Law 24 of 1995 on Wildlife
- Forest Law 1-94
- Law 24-1994 on Reforestation

CONTRACT LAWS

- Contract Law 9 of 1997: Petaquilla concession (Minera Petaquilla, S.A., now Minera Panamá, S.A.)
- Contract Law 92-2013: Vera Gold Corporation, S.A.

DECREES

- Executive Decree 123 of 2009 Regulation of the Process of Environmental Impact Studies
- Decree-Law 35 of 1966 regulating the use of water
- Executive Decree 360 (2015), regulating the obligation to pay royalties

REGULATIONS AND RESOLUTIONS

- Mining Plans Regulations, 1998
- Regulations for Applications for Non-Metallic Minerals Mining Concessions, DGRM-98-67
- Regulations for authorizations to extract minerals for public works, DGRM-98-93
- Resolution No. AG 363-2005 on the register of national historic and archaeological finds
- Regulation DGNTI-COPANIT 44-2000 on health and safety in workplaces where noise is generated
- Regulation DGNTI-COPANIT 43-2001 on health and safety in workplaces where chemicals are generated



- Regulation DGNTI-COPANIT 45-2000 on health and safety in workplaces where vibrations are generated
- Regulation DGNTI-COPANIT 22-393-99: "Water Quality. Sampling for biological analysis"
- Resolution AG-0235-2003: Rates for ecological compensation payments
- Resolution 343 of 1997
- Resolution 350 of 2000: Direct discharge of effluent liquids into wastewater collection systems
- Resolution 351 of 2000: Direct discharge of effluent liquids into surface waters
- Resolution 352 of 2000: Use and final disposal of sludge
- Resolution J.D. 009-94: National System of Protected Areas



IGF

INTERGOVERNMENTAL FORUM
on Mining, Minerals, Metals and
Sustainable Development