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BRAZIL:
2023 MINING GUIDE
Brazilian Law Overview, Trends, Perspectives and Opportunities

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INTRODUCTION

Brazil is widely known as a major player in the global mining and metals industry, with an incredible range of natural resources and geo-diversity. From grassroots mineral exploration to world-class mineral deposits, foreign investors can find several interesting investment opportunities in Brazil that, combined with a strong domestic market, extremely qualified mining professionals and suppliers, abundant water and clean energy, makes Brazil one of the most attractive jurisdictions in the world to invest in for the global mining and metals industry.

In fact, according to World Mining Data 2022[1], Brazil is the only Latin American country to rank within the top 10 largest producers of mineral fuels, iron, ferrous and non-ferrous metals, precious metals and industrial minerals. It is the 9th largest producer in the world, coming in between Canada and Iran. Brazil is constantly improving its business and regulatory environment to further attract foreign investments in this industry which is so important to the Brazilian economy.

Total Minerals Production 2020,by Country (by Production in metr. t)[2]

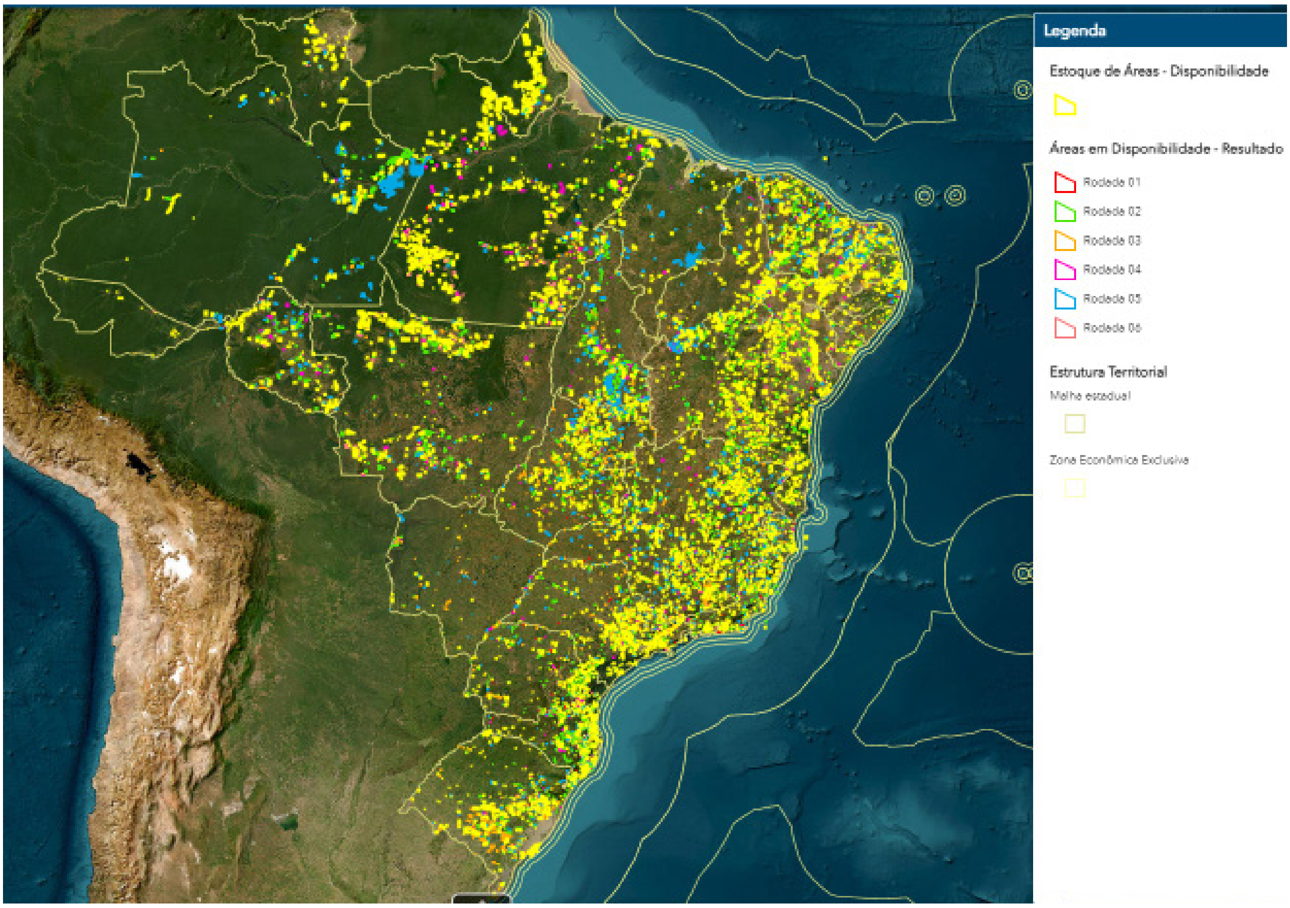
COUNTRY	TOTAL (INCL. BAUXITE)	IRON, FERRO-ALLOYS	NON-FERROUS METALS	PRECIOUS METALS	INDUSTRIAL MINERALS	MINERAL FUELS
CHINA	4 427 153 043	229 906 588	45 198 125	3 747	175 071 760	3 906 972 823
UNITED STATES	2 141 205 566	24 268 417	3 295 575	1 242	90 055 485	2 023 568 407
RUSSIA	1 572 616 776	65 858 191	5 338 886	1 795	35 826 548	1 458 944 356
AUSTRALIA	1 337 535 370	572 746 598	4 393 731	1 665	18 264 902	638 501 663
INDIA	1 017 395 848	130 696 600	4 607 040	707	56 303 074	805 419 762
INDONESIA	679 790 700	2 831 450	805 516	404	3 853 261	646 440 174
SAUDI ARABIA	637 193 584	300 000	908 564	20	15 929 000	614 813 000
CANADA	505 241 837	32 640 907	3 811 079	502	35 366 832	433 422 517
BRAZIL	475 549 462	247 743 856	1 238 997	149	16 121 127	177 547 533
IRAN	409 474 050	33 835 456	1 035 863	57	25 929 099	347 631 250

In 2017, the Brazilian National Department of Mineral Production ("DNPM") was transformed into an more politically independent National Mining Agency ("ANM"), which took over the responsibility for regulation, supervision, and promotion of a Brazilian mining investor-friendly environment by simplifying the regulatory burden and improving transparency.

[1] World Mining Data 2022. Federal Ministry of Agriculture, Regions and Tourism of Austria, 2022. https://www.world-mining-data.info/wmd/downloads/PDF/WMD2022.pdf

[2] World Mining Data 2022. Federal Ministry of Agriculture, Regions and Tourism of Austria, 2022. https://www.world-mining-data.info/wmd/downloads/PDF/WMD2022.pdf

This transformation, in addition to a clear improvement in the regulator's response time, also triggered the offering of over 57,000 areas available at the agency's portfolio. The ANM already carried out seven rounds of offering, collecting (just in the fifth round, an amount of US$ 23 million).[3] Until May 2023, ANM's portfolio still had approximately 32,000 areas to be offered to mining players.[4]



The mining players interest at these areas is noteworthy, as its been growing from 33% in the first round, reaching an average of around 50% over the next 3 rounds. ANM collected around US$ 55 million with the four rounds, showing that there are many opportunities to be seized.

According to the Secretary of Partnerships in Energy, Oil, Gas and Mining of the Special Secretariat of the Investment Partnerships Program, these data depicts the great interest of economic agents in new investment opportunities in mining. This will certainly result in an increase in Brazilian mineral resources and reserves and, therefore, in mineral production. In addition, it can be expected an increase in the offer of jobs and socioeconomic development for the country.

The recent changes in the Brazilian mining regulations, along with ANM's enthusiasm for promoting a business-friendly environment with increasing legal certainty is helping to foster investments in the Brazilian mining industry.

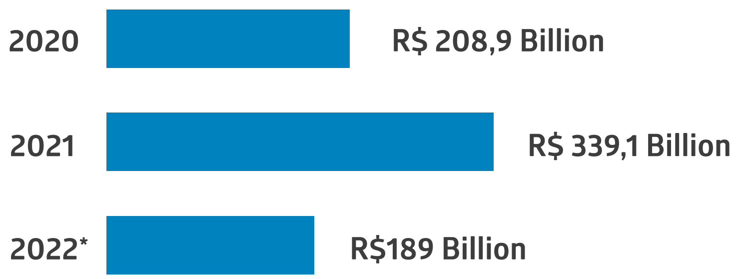
3 Leilão de áreas para mineração arrecada R$ 121 milhões. Agência Brasil, 2021. Available at https://agenciabrasil.ebc.com.br/geral/noticia/2021-12/leilao-de-areas-para-mineracao-arrecada-r-121-milhoes

4 Rodadas de Disponibilidade. Dashboard. Available at https://geo.anm.gov.br/portal/apps/opsdashboard/index.html#/2706303fec9541bdafdad76eb5c1da7f

The 2018[5], 2019[6], 2020[7] and 2021[8] Brazilian Mineral Yearbooks, all published by ANM, also accurately demonstrates the size and potential of the Brazilian mining industry, showing that the mineral production revenue of the main metallic substances reached R$103 billion in 2018, R$129 billion in 2019, in 2020, R$193 billion and, in 2021, 193,5 billion BRL.

Year	Mineral production revenue of the main metallic substances
2018	R$103 billion
2019	R$129 billion
2020	R$193 billion
2021	R$193,5 billion

The Brazilian Mining Institute (IBRAM) also published the results of the Brazilian mining production: in 2020, despite the COVID-19 pandemic and devaluation of the local currency,[9] Brazilian mineral industry reached a revenue of R$208,9 billion; in 2021 it reached R$339,1 billion. The complete analysis for the 2022 is not yet finished, but the first three quarters reached revenues of R$189 billion.[10] These results clearly show the sector's resilience.



*Not yet finished, only first three quarters

The Brazilian mining and metals industry showed strong resilience, positive results and growth during the past few years. There are incredible investment opportunities available and a backlog

[5] Anuário Mineral Brasileiro: Principais Substâncias Metálicas / Coord. Técnica de Marina Dalla Costa et al.; – Brasília: ANM, 2020. 35 p.: il. Ano Base 2018. Available at: https://www.gov.br/anm/pt-br/centrais-de-conteudo/publicacoes/serie-estatisticas-e-economia-mineral/anuario-mineral/anuario-mineral-brasileiro/AMB2019_anobase2018_FINAL.pdf

[6] Anuário Mineral Brasileiro: principais substâncias metálicas / Agência Nacional de Mineração; coordenação técnica de Marina Dalla Costa. – Brasília: ANM, 2020. Ano Base 2019. Available at: https://www.gov.br/anm/pt-br/centrais-de-conteudo/publicacoes/serie-estatisticas-e-economia-mineral/anuario-mineral/anuario-mineral-brasileiro/amb_2020_ano_base_2019_revisada2_28_09.pdf

[7] Anuário Mineral Brasileiro: principais substâncias metálicas / Agência Nacional de Mineração; coordenação técnica de Marina Dalla Costa. – Brasília: ANM, 2021. Ano Base 2020. Available at https://www.gov.br/anm/pt-br/centrais-de-conteudo/publicacoes/serie-estatisticas-e-economia-mineral/anuario-mineral/anuario-mineral-brasileiro/amb-2021-ano-base-2020.pdf

[8] https://www.gov.br/anm/pt-br/centrais-de-conteudo/publicacoes/serie-estatisticas-e-economia-mineral/anuario-mineral/anuario-mineral-brasileiro/amb-2021-ano-base-2020.pdf -

[9] It is interesting to note how the COVID-19 pandemic reshaped the global mining and metals industry, bringing several challenges and opportunities for the sector. The Brazilian mining industry reacted strongly supported by the issuance of the Ordinance no. 135 on March 28, 2020 by the Ministry of Mines and Energy, which declared mineral exploration, mining and its chain of value as essential activities and therefore authorized companies to continue operating, subject to local regulation that imposed specific safety measures on transportation, staff reduction, additional mandatory HSE equipment etc.

[10] Publicações - IBRAM – Mineração em números (acesso en 17.01/2022)

of mining investments. For example, the Mineral Sector Bulletin of 2021[11] reported that the known contained reserves of copper add up to 11,212 ($x10^3$) t. When colliding this number with the gross production indicated in the 2020 mineral yearbook, which was slightly above 554 ($x10^3$) t, we reach the conclusion that known reserves of copper have a lifespan of just above 20 years. With an area of over 8.5 million km^2 and the granting of just 2,560 exploration permits[12] in 2020, it is clear that Brazil has the geological potential to become an even greater player in the global mining and metals industry.

Brazil is a third of Latin America in whichever way, shape or form you slice and dice the numbers (population, territory, economy, etc.). More importantly, Brazil continues to be the largest Economy in Latin America.[13] In 2020, the Brazilian gross domestic product (GDP) was 1.44 trillion dollars.[14] In 2021, the GDP was 1.608 trillion dollars[15] and IFM estimates that in 2022, the GDP was 1.833 trillion dollars.[16]

Due to its abundant natural resources, Brazil's economy is especially active in the agricultural, food, mining, steel, clean energy, and oil and gas industries, but Brazil is also surging as a technology hub in the region and is commonly known as the pathway to Latin America for many companies around the globe.

Recognizing this potential, the Brazilian government instituted the Policy to Support the Environmental Licensing of Investment Projects for the Production of Strategic Minerals "Pro Strategic Minerals", through Decree no. 10.657/2021, aiming to create a supportive environment around those who seek to implement projects of strategic minerals for the development of the country. The Decree organized strategic minerals into 3 groups:

(I) mineral goods in which the country highly depends on imports to supply vital sectors;

(II) mineral goods that are important due to their application in high technology products and processes;

(III) mineral goods with comparative advantages and that are essential for the economy due to surplus generation in the country's trade balance.

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[11] Mineral Sector Bulletin – 2021. Available at: https://www.gov.br/mme/pt-br/assuntos/secretarias/geologia-mineracao-e-transformacao-mineral/publicacoes-1/boletim-do-setor-mineral/boletim_sgm_dez2021_digital_7-edicao.pdf/@@download/file/Boletim_SGM_Dez2021_digital_7%20edi%C3%A7%C3%A3o.pdf

[12] Anuário Mineral Brasileiro: principais substâncias metálicas, ANM, 2020.

[13] The World Bank. GDP (current US$) - Latin America & Caribbean, Colombia, Chile, Mexico, Peru. Available at: https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?end=2020&locations=ZJ&most_recent_value_desc=true&start=1960&tt-start=2016&view=chart.

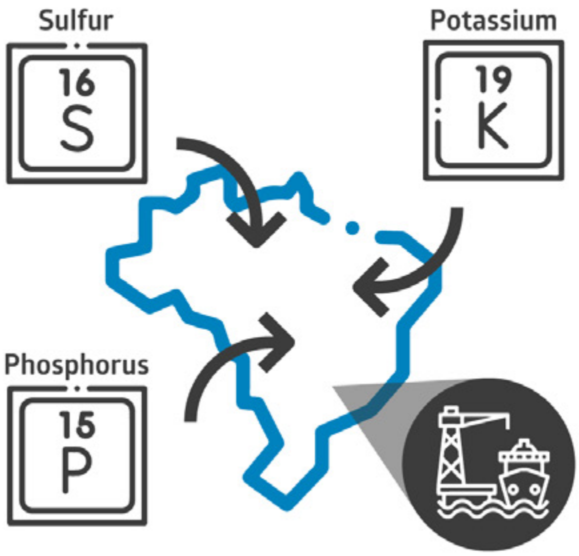
[14] International Monetary Fund. Country data: Brazil. https://www.imf.org/en/Countries/BRA#countrydata.

[15] Em 13º entre maiores economias, PIB do Brasil fica abaixo de média global (cnnbrasil.com.br)

[16] https://www.imf.org/en/Countries/BRA#countrydata.

For that reason, Secretariat of Geology, Mining and Mineral Transformation of MME, published the Resolution no. 2/2021, that listed which minerals are those considered strategic for the country following the Policy criteria. As minerals with high dependence on imports, sulfur, phosphate and potassium stand out.

MINERALS WITH HIGH DEPENDENCE ON IMPORTS



As a result of the war on Ukraine, several countries have imposed economic restrictions on Russia, which affected Brazilian imports of fertilizers. Brazil is the fourth global consumer of those, rising to second place when it comes to potassium. Around 95% of the potassium used in the sector come from imports, being Russia responsible for providing 25% of this purchase.[17] In due course, the government also released the National Fertilizer Plan, in partnership with the private sector, in order to reduce Brazil's dependence on fertilizer imports, increasing national production.

Regarding potassium, a recent survey carried out by the Federal University of Minas Gerais[18] concluded that the country has potassium reserves with the potential to sustain agriculture until the year 2100. This highlights the high expectations of this mineral's chain of value.

As another consequence of the war, nickel – ore produced on a large scale in Brazil – reached the highest price in 11 years, exceeding US$ 100 thousand per ton[19] in the Metal London Exchange.

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[17] International Monetary Fund. GDP, current prices. Available at: https://www.imf.org/external/datamapper/NGDPD@WEO/OEMDC/ADVEC/WEOWORLD/USA/BRA

[18] Reservas nacionais podem garantir Potássio até 2100, diz pesquisa, Minera Brasil, 2022. Avaliable at: Reservas nacionais podem garantir Potássio até 2100, diz pesquisa :: Minera Brasil

[19] Preços históricos do níquel pode beneficiar mineradora brasileira (revistamineracao.com.br)

LEGAL SYSTEM AND FOREIGN INVESTMENTS IN BRAZIL

Brazil is a Federal Republic, formed by the indissoluble union of 26 states, the Federal District (Brasilia, founded in 1960), and 5,564 municipalities. Every state has the power to adopt its own constitution and laws (mainly local tax and administrative law), although their legislative autonomy is limited by the principles and rules established by the Federal Constitution. Municipalities are also subject to restricted autonomy and their legislation must follow the dictates of the State and Federal Constitutions.

The laws governing mining activities are found in federal legislation, which include the Brazilian Mining Code and, from a foreign investment perspective, the Foreign Investment Rules and Regulations. Other federal, state and municipal legislation also applies with respect to taxation, environmental and administrative matters.

As a civil law jurisdiction, Brazil's judiciary is organized into the federal and state branches. Court decisions are based on the application of the laws in force in Brazil, most of which are federal; where there are no specific legal provisions relating to a situation, the courts decide the case based on analogy, usage and custom, and general principles of law (judicial precedent has an important role in court decisions but does not have the same status as in common law jurisdictions).

The legal structure of a mining project in Brazil, like in many other countries, can take a variety of forms to achieve the needs of a particular project or investment. Except for the prospecting, mining, and reprocessing of nuclear ores, which is considered a monopoly under the Brazilian Government control. the exploitation of other mineral resources can only be carried out by private parties, provided that they are Brazilian nationals or entities incorporated in Brazil (which can be foreign controlled).[20]

The acquisition of mining rights is conducted through an administrative procedure, carried out by ANM. In Brazil, the adopted jurisdiction system includes the judicial review of administrative actions, according to which the Judiciary is the only one capable of producing definitive decisions. In other words, all administrative decisions can be subject to appeal, so that if the party does not agree with any decision, he may appeal until the exhaustion of administrative jurisdiction, and then, he may subject the matter to a legal court.

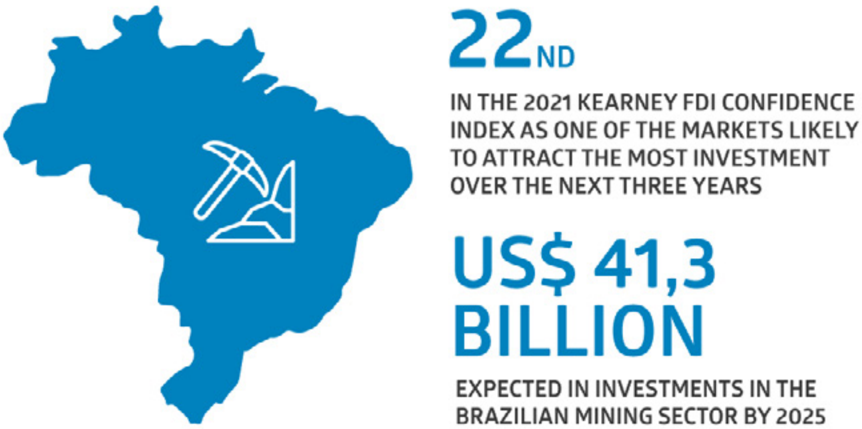
Generally, local and foreign investors are treated equally under Brazilian law. For instance, Brazil's Federal Constitution treats local and foreign investors equally. However, there are some restrictions on foreign investment in certain sectors, e.g., the mining sector, as explained in this paper. Non-residents, for example, may be subject to certain regulatory restrictions, such as the

[20] Constitution of Brazil, art 176.

inability to control mining activities located within the Brazilian border zones.[21] On the other hand, several tax benefits are available solely to foreign investors, such as tax exemptions or reduced rates for income taxes.[22]

Seeking to improve the regulatory framework and therefore the business environment, ANM issued its first regulatory agenda in compliance with the new Law of Agencies. The regulatory agenda is a tool to give predictability to the sector through the listing of the priority themes to be regulated for a given biennium. In addition, on August 17, 2020, the Brazilian government launched a national plan for economic recovery after the effects of covid-19 pandemic, aiming to foster foreign investment by increasing government transparency and regulatory certainty.[23]

According to the Direct Investment Report of Brazilian Central Bank[24], Brazil received a net income of US$37.8 billion in foreign direct investment (FDI) in 2020. This represents a decrease of around 45% compared to 2019, mainly due to the COVID-19 pandemic and its economic impacts. However, confirming the positive outlook for the country's post-pandemic economy, Brazil ranked 22nd in the 2021 Kearney FDI Confidence Index as one of the markets likely to attract the most investment over the next three years.[25] In addition, the Brazilian mining sector is expected to receive US$ 41,3 billion in investments by 2025.[26]



[21] Along with the fact that mining is considered a national policy matter, the Brazilian legislation provides special restrictions to mining activities within the so-called Brazilian border zones. It states that mining companies with operations within 150 km from the Brazilian border zone must have (i) at least 51% of its capital owned by Brazilians; (ii) at least 2/3 of employees as Brazilians and (iii) the management done mostly by Brazilians.

[22] For example, we have portfolio investments under CVM Resolution 4,373 providing reduced tax rates for capital gain recognized and exemption to dividends paid abroad. As well, we point out the FIP (Private Equity Funds) which has an income tax exemption for income paid abroad, as long as the foreign party does not control over 40% of the fund. Specific benefits such as SUDENE, SUDAN and REID may also be available depending on the business sector and location of the investment in Brazil.

[23] "Plano Nacional de Investimentos prevê ações até 2022 para retomada da economia. Ministério da Economia", 2021. https://www.gov.br/economia/pt-br/assuntos/noticias/2020/agosto/plano-nacional-de-investimentos-preve-acoes-ate-2022-para-retomada-da-economia

[24] Relatório de Investimento Direto 2021. Banco Central do Brasil. Available at: https://www.bcb.gov.br/content/publicacoes/relatorioidp/RelatorioID2020/RID_2021.pdf

[25] A.T. Kearney. The 2020 Foreign Direct Investment Confidence Index. Available at: The 2022 Kearney Foreign Direct Investment Confidence Index®: Optimism dashed - Kearney

[26] "Destaque: os planos de investimento até 2025 das mineradoras no Brasil." BNAmericas, 2022. https://www.bnamericas.com/pt/noticias/destaque-os-planos-de-investimento-ate-2025-das-mineradoras-no-brasil.

Foreign investment in Brazil is regulated by Law no. 4,131 amended by Law no. 14.286 (known as the "Foreign Capital Law")[27] which requires that foreign investments in Brazil be registered with the Central Bank[28] to ensure foreign remittance of profits and/or interest on equity, repatriation of foreign capital invested in Brazil and reinvestment. In addition, within 30 days of closing the exchange contract, capital remittances must be registered with the online Brazilian Central Bank electronic system RDE-IED ("Registro Declaratório Eletrônico de Investimentos Estrangeiros Diretos").[29] Foreign capital may take the form of cash, goods, services or intangibles, with investments in cash being the simplest and most common form of initial investment.[30]

According to the Foreign Capital Law, foreign capital includes any goods, values, rights and assets of any nature held in the national territory by non-residents. Foreign capital also includes any funds brought into Brazil to be used in economic activities or owned by individuals or companies that reside or are headquartered abroad.

The remittance of profits to non-resident foreign investors must comply with the requirements set forth by the Central Bank - which is also responsible to regulate and monitor Brazilian capital abroad and foreign capital in the country, their flows and stock.[31]

Investments in the capital market by individuals or legal entities that are non-residents of Brazil are also subject to registration with the Brazilian Central Bank as well as with the Brazilian Securities Commission (CVM).[32]

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[27] Law no. 4,131/1962, which was regulated and amended by Law no. 4,390/1964, Decree no. 55,762/1965, Decree-Law no. 37/1966, Decree-Law no. 94/1966, Law no. 8,383/1991, Law no. 8,685/1993, Law no. 9,069/1995 and Decree-Law no. 2,073/1983 (Lei N° 4.131, Brasil, 3 de setembro de 1962, Palácio do Planalto, online: http://www.planalto.gov.br/ccivil_03/leis/L4131.htm).

[28] The registration of foreign capital with the Central Bank of Brazil (Banco Central do Brasil or BACEN) is provided for by Law 4,131/1962 and Law 4,390/1964, which guarantees equal treatment of foreign and national capital (Ibid; Lei no. 4,390, Brasil 29 August 1964, Palácio do Planalto, online: https://www.planalto.gov.br/cCivil_03/LEIS/L4390.htm).

[29] The Brazilian Central Bank is responsible for the registration and monitoring of foreign investments in Brazil. The Ministry of Finance is responsible for monitoring tax issues relating to foreign investments in Brazil.

[30] A foreign creditor can convert into foreign investment the amounts due by Brazilian companies which can then be remitted abroad according to Brazilian laws. The profits and/or interest on equity payable to the foreign investor may also be reinvested in the same Brazilian company or in a third Brazilian company.

[31] Law No. 14.286, article 10.

[32] Non-resident investors (individuals or legal entities) may invest their funds in the same financial and capital market instruments and operational modalities available to resident investors. See CVM Resolution560/15, CMN Resolutions 4,373/14 and 2.687. For additional information please see generally ANBIMA, "Non-Resident Investors Guide" ANBIMA (July 2016), online: http://www.anbima.com.br/data/files/4B/65/20/1C/F29D851093995C8569A80AC2/Non-resident-Investors-Guide.pdf

THE BRAZILIAN MINERAL EXPLORATION AND MINING INDUSTRY

Mining activities are the foundation of the production chain, providing the materials required to build, maintain and improve the infrastructure and objects we use in our everyday lives. Once a geological discovery is made, several studies and assessments must be conducted to evaluate the economic potential of the discovery, its social and environmental impacts, as well as the necessary logistics and infrastructure before developing and operating a mine.

These studies and assessments can lead to the completion of a definitive feasibility study, the construction and operation of a mine, and eventually the mine closure, along with the degraded area recovey. In each of those phases, there are several technical, economic and social challenges that require substantial investment to turn a geological discovery into mineral production.

There are also several stakeholders involved in each of these phases: the explorer or miner, the communities located in the neighboring areas, the governmental and supranational authorities, national and international institutions and associations, financial institutions, logistics operators, buyers (or consumers), etc. This section provides a general overview about the Brazilian mineral exploration and mining regulatory framework.

World-renowned for its incredible natural resources and for having the largest economy in Latin America, as shown before, Brazil has extremely rich mineral deposits and provides an excellent environment for foreign investments, particularly in the mining industry.

The Brazilian Constitution treats mining as a national policy matter, that must be carried out with the national interest in mind. The Brazilian federal government owns and has the jurisdiction to control, regulate and grant the rights to explore and exploit Brazil's mineral resources.[33] Accordingly, the Brazilian Constitution states that all mineral resources are owned by the federal government and that these are distinct from land ownership. In other words, the subsoil and soil are subject to distinct legal treatment, and the holder of a mineral exploration license or a mining concession has the right to conduct mineral exploration activities or mining activities even where there is a dispute with the landowner.

Due to this distinction under Brazilian law, the mining rights holder has guaranteed access to the area covered by the title, provided that the owner of the surface gets compensated for its usage.[34] The constitutional system governing mineral deposits and the regulations on mining in Brazil

[33] The Brazilian Federal Constitution of 1988 states that the "mineral deposits, under exploitation or not, and other mineral resources and the hydraulic energy potentials form, for the purpose of exploitation or use, a property separate from that of the soil and belong to the Union, the concessionaire being guaranteed the ownership of the mined product". Constitution of Brazil, art 176.

[34] Brazilian Mining Code. Please note that generally the compensation payable by the mining rights owner to the landowner for the use of its land is half of the royalty payable to the Brazilian Government and compensation for any damage and loss caused or that may be caused as a result of such activities.

establishes a special legal framework that protects the mining company (which invested resources in order to discover the mineral deposit), the state, the citizens, local communities, the environment and the landowner. Despite the government's ownership of the resources, the product of the mining belongs to the mining rights holder.

As mining is treated by the Brazilian Law as a national policy matter, the power to regulate the sector is held exclusively by the federal government, which applies its control through a system of authorizations, concessions, licenses and permits established in the Brazilian Mining Code, which is periodically reviewed and amended.[35] The state and municipal governments have supplementary authority to regulate certain aspects of mining, such as matters related to the environment and zoning, and other aspects related to planning, implementation, operation, safety, tax and the decommissioning of tailings dams.

The regulatory control of the exploration and mining industry in Brazil is carried out by the Brazilian Ministry of Mines and Energy (MME), which is administratively responsible for regulating, granting, monitoring, overseeing and sanctioning the mineral exploration and mining industry. Such responsibilities are exercised through ANM, a special independent federal agency tied to MME, whose administrative and financial independence was established with the modernization of the Brazilian Mining Code in 2017.[36]

In addition to the Constitution and the Mining Code, the main federal legislation that governs exploration and mining activities in Brazil are:

LEGISLATION PURPOSES	
Law no. 13,575/2017	Created the National Mining Agency – ANM and extinguished the old National Department of Mining – DNPM.
Law no. 6,567/1978	Regulated the Licensing System.
Law no. 7,805/1989	Created the small-scale independent mining permit.
Law no. 8,176/1991	Defined illegal mining as an economic crime.
Law no. 7,990/1989	Created the Financial Compensation for Exploiting Mineral Resources.
Law no. 8,001/1990	Regulated the Financial Compensation for Exploiting Mineral Resources.
Law no. 13,540/2017	Altered the Financial Compensation for Exploiting Mineral Resources regulation.
Law no. 12,334/2010	Created the National Policy for Dam Safety, updated through Law n. 14,066/2020.
Law no. 14,514/2022	Addresses the encumbrance of mining titles, the exploitation of nuclear minerals by private parties, and the declaration of availability of resources of the miner.

[35] Decree-Law no. 227/1967.

[36] Law no. 13.575/2017 created the ANM and Decree no. 9.587/2018 installed ANM

Along with these main federal laws, there is a wide range of administrative rules, ordinances, and regulations, mainly issued by ANM (and its predecessor DNPM) and the MME (Ministry of Mines and Energy). Main regulations include:

Ordinance **155/2016**	Consolidation of ANM normative acts;
Resolution **1/2018**	Regulates the exploitation system known as extraction;
Decree **9,406/2018**	Amended by Decree 10,965/2022 (Regulates the Mining Code);
Resolution **22/2020**	Sets the deadlines for tacit approvals;
Resolution **24/2020**	Regulates the mining rights availability procedure;
Resolution **68/2021**	Regulates the Mining Closure Plan;
Resolution **85/2021**	Regulates the procedures to reuse mining waste;
Resolution **90/2021**	Regulates the offer of mining rights as collateral for financing operations;
Resolution **94/2022**	Regulates the Brazilian System of Resources and Reserves;
Resolution **95/2022**	Consolidates the normative acts that deal with the safety of mining dams;
Resolution **102/2022**	Bylaws of ANM;
Resolution **119/2022**	Creates REPEM, an electronic system for exploration application;
Resolution **120/2022**	Regulates the annual fee per hectare ("TAH – Taxa Anual por Hectare");
Resolution **122/2022**	Regulates the sanctions for non-compliance to mining norms;
Decree **11.310/2022**	Regulates the National Dam Safety Policy – Law no. 12,334/2010.

A considerable change, especially for the regulated sectors, was the enactment of **Law no. 13,874/2019, called the "Economic Freedom Law"**. This law established that in given situations, after a term without a formal answer of the State entity, some queries would be considered tacitly (automatically) approved. To comply with this Law, ANM issued the Resolution No. 22/2020, establishing those decisions that would be considered tacitly approved if an answer is not given until the legal deadline. This tacit approve of the requirements was recently reaffirmed by the changes in the Regulation of the Mining Code, that provided for the tacit approval for reuse of tailings requirements.

As of December 2021, meaningful economic aspects of mining were regulated by ANM through the entry into force of **three Resolutions**.

The first was Resolution ANM No. 85/2021 that regulated the exploitation of mining tailings and waste. Its entry into force was the sum of efforts held by ANM and stakeholders to encounter a solution to the sustainable management of tailings and waste.

As the matter was surrounded with legal uncertainty once there were reasonable doubts concerning to whom would fit the rights to reuse that material, and giving that the mining activity is expensive, the regulation came in hand and was able to bring a direction to the sector in finding solutions to sustainably manage this material.

Two main aspects of the Resolution are worthy highlighting, the first concerns the linkage between the waste and the mine in which it was generated, even though being deposited outside its polygon, and the second concerns the fact that it is not necessary to obtain a new mining right to exploit that material. However, the title holder must fulfil some requirements to be entitled to exploit under this system. If not complied with, the exploitation is subjected to the regular mining regimes.

The other is Resolution ANM no. 90/2021 that established the cases in which mining rights can be given as collateral on financing operations for mining and the requirements and conditions for the assignment of these titles. The regulation authorized the use as collateral of the mining concessions and the mining claims and, in both cases, the encumbrance must be requested before ANM with the financing agreement in which the mining right was granted as collateral.

In addition, it establishes the duties of the titleholder during the term of the encumbrance and when it would be written off. Once again, it depicts a path towards legal certainty and a friendly environment for investors.

Due to the previous understanding adopted by ANM that only mining concessions could be given as collateral, the Mining Code was altered in 2022 to allow all mining rights to be given as collateral to financing transactions. The security interest may be created by means of a pledge, fiduciary transfer for security purposes or any other contractual arrangement agreed upon by the parties considering the specifics of the transaction.

Thus, although ANM Resolution 90/2021 does not establish the procedure for the encumbrance of mining rights other than mining concessions, there is no longer doubt that the encumbrance is possible, due to the recent amendment in Mining Code.

Current regulations provide that security over mining manifests ("manifestos de mina") must be granted by means of a public deed or instrument, whereas security over mining concessions ("concessão de lavra") may be created by means of private instruments. The lien must then be registered with ANM, which is made by means of an online procedure.

The security agreement must disclose the name of the secured creditors, the debtors and the security providers; the amount of the secured transaction, its interest rate and payment terms; the mineral right given as collateral and the purpose of the financing operation. Current regulations allow the secured creditors to request to ANM financial and operational information on the mining rights given as collateral.

In case of enforcement of the security interest, the secured creditor is obliged to sell the mining rights to a third party, by means of a public or a private sale. The sale must be reported to ANM and its effects will be conditioned to ANM's consent. The new owner of the mining rights (i) must be a company headquartered in Brazil and (ii) assumes the legal position of the previous holder (the original security provider), including the responsibility for any debts relating to the period prior to the foreclosure (however, the previous owner is jointly and severally liable for those debts). Parties may contractually agree on redress rights, which however are not enforceable vis-à-vis third parties, such as ANM.

Moving forward to 2022, another change implemented by ANM was the **publication of the Resolutions ANM no. 94, 95, 102 and 122**, all in the past year, 2022.

The first one regulated the Brazilian System of Resources and Reserves. It was published on February 7, 2022 and came into force on August 07. It is expected that the regulation brings even more legal certainty and transparency regarding the publicity of the mining exploration results. Alongside with the use of mining rights as collateral regulation, it is unarguably a powerful tool to foster the Brazilian mining sector.

The second one, Resolution ANM No. 95/2022, consolidated dam safety standards, unified normative acts related to the matter and revoked prior regulation. Moreover, the Resolution provided for the innovations brought by Federal Law no. 14,066/2020, as will be discussed later in this guide. The Resolution brought significant changes regarding the automatic classification of mining dams in an emergency situation, with the main purpose of regulating the dams through the adoption of effective safety measures by the owners. Hypothesis of embargoes, suspension and interdiction are also included in the Resolution.

The third resolution was the change of ANM's by-laws, that reorganized the agency's structure and modernized its bodies with clearer hierarchy, competences and centralization of strategic decisions, which was a way to bring more certainty, especially in such a large country as Brazil.

Finally, the fourth resolution establishes the procedures for ascertaining the infractions, sanctions and amounts of fines imposed as a result of non-compliance with the obligations set out in the mineral legislation. Now, the amounts of fines can reach up to 1 billion BRL.

Besides that, the Law no. 14,514/2022 was published on December 2022 and changed the Mining Code, bringing the possibility of mining rights, regardless of their phases, being encumbered and offered as security by their holders, as explained in the paragraphs above. This must encourage and facilitate the achievement of resources by entrepreneurs in the sector.

Another important change made by the Law no. 14,514 refers to the possibility of the entrepreneur undertaking to seek the financing necessary for the compliance with the Economic Plan (PAE) and operation of the mine, as an alternative to prove the availability of funds provided for in article 38, VII of the Mining Code (Decree-Law 227/1967).

MINING RIGHTS & SURFACE RIGHTS IN BRAZIL

1. **Identification Phase:** Identification of the location and type of mineral resource for exploration. Conduct geological surveys and evaluate the economic viability of the project.
2. **Request for an Exploration License:** Submit a exploration application to the National Mining Agency (ANM), including a detailed description of the resource and a exploration plan.
3. **Exploration License Phase:** Receive the Exploration License from the ANM, allowing the conduct of geological and economic exploration at the designated location. The permit is valid for up to three years and can be renewed for an additional three years.
4. **Exploration Phase:** Conduct exploration activities, such as drilling, sample collection, laboratory testing, and other techniques to confirm the presence, extent, and economic viability of the mineral resources.
5. **Exploration Final Report Phase:** Submit the final exploration report to the ANM, which includes detailed data on the mineral reserves and their economic viability.
6. **Request of a mining concession – development and operation of a mine (art. 38 of the Mining Code):** Apply for an exploitation concession, which is the formal right to commercially exploit and extract the identified mineral resources.
7. **Granting of mining concession (art. 43 of the Mining Code):** Receive the exploitation concession from the ANM, authorizing the commercial exploitation of the identified mineral resources. The concession typically has an indefinite duration, as long as the obligations and conditions set by the ANM are met.

Environmental Licensing Phase (Concurrent with the previous steps): Obtain the necessary environmental licenses for the mining operation, issued by state or federal environmental agencies.

Before carrying out mineral exploration or mining activities in Brazil, it is necessary to first obtain a exploration license, followed by a mining concession from the Brazilian government, represented by ANM. To this end, a exploration license request or a mining concession request must be filed with the agency, which will evaluate if the request fulfils the necessary legal and technical requirements.

A exploration license ("alvará de autorização de pesquisa") regulates the stage of mineral exploration activities. After the recent amendment promoted in the Mining Code by Law nº. 14.514/2022, mineral exploration rights are granted for a period for up to four years and may be extended by ANM at its sole discretion, if requested by the holder. The extension of the original term of the exploration license must be requested by the holder at least 60 days prior to its expiration.

At the end of the exploration license term, a report of the work performed must be submitted to the ANM (the Final Mineral Exploration Report):

a) Proved the technical-economic feasibility of the mining, it shall be approved, resulting in the right to apply for the mining concession;

b) Concluded by the inexistence of a deposit, the report must be filed by ANM, leaving the area free for future explorations requests;

c) If there is evidence of insufficient exploration work or technical deficiency in its preparation, the report will be rejected by ANM;

d) If the report concludes that there is temporary impossibility of the technical-economic feasibility of the mining, the decision about it will be suspended.

There is a penalty if the holder of the exploration license does not file the Final Mineral Exploration Report, as foreseen on Regulation 122/2022, and the area will also be put on hold.

The holder must carry out all exploration activities necessary to determine the existence and extent of a mineral deposit and define the technical and economic feasibility to explore said deposit. The exploration license can be assigned to a third party if the assignee fulfils the legal requirements of the original authorization and is approved by ANM.

The mining concession ("concessão de lavra") is applicable to and regulates the exploitation stage. Following approval of the Final Mineral Exploration Report, the holder of the exploration license has the exclusive right to request the mining concession, which must be exercised or negotiated within a period of one year and may be extended for a further year at ANM's sole discretion. The mining concession is granted for an indefinite period.

The granting of a mining concession is subject to the fulfilment of following conditions, but not limited to: exploring the area, obtaining an approved Final Mineral Exploration Report and ensuring that the area will be adapted to the technical and economic conditions necessary for carrying out the mining operations and related works, in accordance with what was established under the Economic Exploitation Plan (the "PAE") related to the concession.[37] The PAE must be submitted by the holder together with its application for the mining concession.[38]

An application for a mining concession includes a mining plan and an economic feasibility analysis, which may be prepared by the applicant. While ANM may request additional information, the main information required is as follows: **(i)** certificate of incorporation of the company; **(ii)** description of the minerals (quality, reserve calculation, volume, density, etc.) and an indication of the mining authorization and the approved technical report; **(iii)** description and information related

[37] Essentially, the two reports may be seen as a feasibility study.

[38] The PAE must contain a detailed description of the project and all technical and economic information defined by article 39 of the Mineral Code (Decreto-lei n° 227/67, Brasil 28 February 1967, Planalto, online: http://www.planalto.gov.br/ccivil_03/decreto-lei/Del0227.htm).

to the area and the main aspects of the deposit (maps, plants, roads, railways, rivers, topography, neighboring areas, surface landowners, etc.); **(iv)** graphic definition of the area; **(v)** mining easement (servitude); **(vi)** PAE; and **(vii)** proof of financial capacity required to carry out the mining.

After a mining concession is published in the official gazette, the mining company has 90 days to request possession of its respective mineral lode or deposit, and six months to start the preparatory work as established in the PAE. Once mining has commenced, it cannot be interrupted for a period of six consecutive months. The mining company must file detailed annual statistical mining reports with ANM. To exploit the mine, an operating license from the applicable environmental authority(ies) must also be obtained.

Throughout this process, the surface rights remain on the hands of landowners who can also be the owner of the respective mineral rights and are typically farmers, ranchers or companies.[39] In the event that the mining company does not hold the title to the underlying surface rights, the surface rights must be individually negotiated to allow the holder of a exploration license or a mining concession to access the land and conduct exploration and/or mining activities. The surface rights owners are obliged by law to provide access to the mineral license holders to conduct exploration. If the parties cannot reach an agreement by mutual negotiations, there are legal mechanisms to enforce such rights.

Accordingly, the acquisition of mineral rights in Brazil may occur originally, by means of the assignment or lease of the mineral rights:

- **Original Acquisition of Mineral Rights.** Mineral rights may be acquired originally, upon an administrative procedure with ANM and according to the principle of priority, under which the first applicant has assured priority to obtain exploration rights over an available area if the other applicable requirements are met (first-come, first-served principle). ANM also conducts bidding processes for areas in which there is a certain level of geological information allowing the agency to put such areas up for bidding. This is a fairly new process within ANM and is valid only for those areas in which ANM has declared the availability of the area, and, through a competitive process, has put said area up for bidding[40]. This

[39] Please note that there are some restrictions regarding the acquisition of a rural estate property in Brazil; for example, a foreign non-resident in Brazil or a foreign company authorized to operate in Brazil cannot acquire a rural property or a property that borders other countries, on a coastline or in areas considered to be national security areas. According to a 2010 binding legal opinion issued by the Federal Attorney General's Office ("Advogado Geral da União – AGU") interpreting the applicable regulation, the direct or indirect transfer of rural properties to a Brazilian company of foreign capital must be previously authorized by Brazil's National Institute of Rural Settlement and Agrarian Reform (Instituto Nacional de Colonização e Reforma Agrária, "INCRA") and is subject to certain restrictions/limitations (although one can argue the constitutionality of such restriction). See Constitution of Brasil, supra note 11 at art 190, 20 para II as revised by Emenda Constitucional 46/05, Brasil 5 May 2005, JusBrasil, online: http://presrepublica.jusbrasil.com.br/legislacao/96718/emenda-constitucional-46-05; Lei n° 5.709, Brasil 7October 1971, Palácio do Planalto, online: http://www.planalto.gov.br/ccivil_03/leis/L5709.htm and its regulatory decree Decreto No 74.965/74, Brasil 26 November 1974, JusBrasil, online: http://presrepublica.jusbrasil.com.br/legislacao/114840/decreto-74965-74; Lei n° 6.634, Brasil 2 May 1979, Palácio do Planalto, online: http://www.planalto.gov.br/ccivil_03/leis/L6634.htm.

[40] Currently there are two main cases of mining rights' bidding process in Brazil. Those are:
- ANM's Disponibilidade.
- CPRM's mining rights.

CPRM is a public company, the Brazilian Geolog ical Survey, responsible for gathering data and information on Brazilian geology, minerals and water resources. To do so, it holds several mining rights, some of which are economically attractive. The company therefore decided to auction some of its mining rights under the Investment Partnership Program, which is procedure is opposed to the Principle of Priority, since it is applicable to those cases in which the title was lost or waived without being assigned to a new holder. Although in these occasions a bidding procedure will take place, if the area is not auctioned, it will return to the initial stage in which the first-come, first-served principle guides the acquisition.

- **Assignment of Mineral Rights.** The assignment of mineral rights, according to the Mining Code, is subject to the authorization of ANM, and it is not allowed prior to the granting of an exploration license. The documents which must be submitted with the request for the assignment vary according to the mineral rights process status. For instance, for the partial or total assignment of an exploration license, the application must include proof of the financial capacity of the assignee, as well as public or private instruments providing for the assignment, as well as corporate documents including proof of power of the representatives and proof of payment of the relevant fees. It should be noted that the request for the assignment does not interrupt the legal term for the presentation of the application for an exploitation authorization (one year from the approval of the respective Report). The assignment of mineral rights located within the Brazilian border zones is subject to prior approval from the National Defense Counsel (CDN). Failure to comply with this requirement will nullify all contracts, acts and/or transactions.
- **Lease of Mineral Rights.** In addition to the original acquisition and assignment of mineral rights, and subject to the authorization of ANM, mineral rights may be leased to third parties without the assignment of the mining rights. The documents which must be submitted with the request for the lease of mineral rights include: the lease agreement; corporate documents (as applicable); a new plan for the exploration and/or exploitation of the deposit with a compliance commitment from the lessee; a declaration from the lessee with regards to the environmental recovery of the area; proof of the lessee's financial capacity; and other documents. The product of the exploration is accepted as a means of payment for the lease, with or without preference in the acquisition in favor of the title-holder.

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conducted by the Investment Partnership Program's Council, under the Ministry of Economy.

ANM's Disponibilidade is guided by ANM's Resolution 24/2020 and is applicable only to the areas which were previously under a mining title (such as exploration permit, mining concession and so), as a way of fostering investments and allowing a broader participation of the mining community on areas about which there is deeper geological knowledge. Given that Brazil has thousands of areas to be declared available for this bidding process, every 60 days, ANM should indicate the areas which will be put up on the following round. Any interested parties should indicate their interest in specific areas in a preliminary hearing, through ANM's website. Those with two or more interested parties would then hold an online bidding process. The areas with only one interested party will be given to the one which indicated its interest, and the ones with no interested parties will be considered free to new applications on the following day.

BRAZILIAN MINERAL EXPLORATION AND MINING SYSTEMS

The governing legislation provides that only Brazilians and mining companies incorporated under Brazilian law, headquartered and managed in Brazil may hold mining rights, which are issued by the federal government following the procedures regarding one of the systems:

(I) exploration license (autorização de pesquisa),

(II) mining concessions ("concessão de lavra") or mine manifest ("manifesto de mina")

(III) mining licensing (licenciamento mineral)

(III) small-scale independent mining permits (permissão de lavra garimpeira)

(III) monopoly (monopólio)

Exploration License and Mining Concessions

Exploration licenses and mining concessions are two separate systems in Brazil. The exploration license consist in an authorization to conduct mineral exploration activities within a certain area; they are valid for up to four years and can be extended for the same period at ANM's discretion, according to the recent amendment promoted in the Mining Code by Law no. 14.514/2022. As a general rule, the holder of a exploration license is not allowed to exploit the deposit, however, in exceptional cases, the holder may apply for a special permit to operate a small-scale mining operation, or as some prefer, to obtain a trial mining permit.[41]

[41] Utilization Bill (a special permit to operate a small-scale mining operation during the exploration phase) Ordinance no. 155/2016.

Requirements for Conducting Mineral Exploration in Brazil

Mineral exploration comprises the activities necessary for measuring, evaluating and delineating mineral deposits, and defining the technical and economic feasibility of a mine. To carry out these activities in Brazil, interested parties must apply for a exploration license from ANM, called Alvará de Pesquisa (exploration licenses).

After applying for a exploration license, local ANM officers will assess the application and, if all legal requirements are met, the exploration license will be granted for a term of up to four years (extendable for a period equal to or lesser than the original exploration license, subject to the approval of ANM). The extension of the term of a exploration license may only occur once, unless the relevant exploration area cannot be accessed, or if the authorizations or environmental licenses are pending due exclusively to factors not attributable to or controlled by the title-holder. The exploration license remains valid as long as the decision regarding the extension request is pending, provided that such request was filed in a timely manner.

In order to conduct mineral exploration activities in Brazil, the holder of a exploration license also needs to obtain **(i)** the relevant environmental permits such as authorization for vegetation suppression, intervention in the Atlantic Forest and others; and **(ii)** the corresponding right of access to the area covered by its mineral rights if he is not also the holder of the surface rights.

Normally, surface rights owners in Brazil receive a fee that is on average half of the royalty payable to the Brazilian Government (in other words, to receive a compensation that is equivalent to half of the CFEM) and are also entitled to be compensated to any damages caused by the holder of a exploration license. If the corresponding surface rights are located within public lands, then the payment of said fee is waived.

In the event the holder of a exploration license or mining concession does not reach an agreement with the landowners of the area covered by said mining rights, there is a specific legal court proceeding in Brazil to force the surface rights owner to give access to the property in order to allow the miner to conduct activities within the areas covered by said mining rights.

Upon completion of mineral exploration activities, the holder of a exploration license must file a Final Mineral Exploration Report with ANM showing the results of the activities carried out within the granted area and the conclusion regarding the feasibility or non-feasibility of further exploitation. The Report is subject to the approval of ANM.[42]

After approval of the Report, the miner must apply for a mining concession within one-year of the approval (extendable for one more year), or assign it to a third party. If the miner requests the extension of the one-year term to apply for the mining concession in a timely manner, the exploration license remains valid, and the holder may continue exploration activities for as long as the decision regarding the extension request is pending.[43]

[42] Articles 23 and 30 of the Mining Code

[43] Holders of exploration license may carry on exploration activities even after the delivery of the Report, as long as these activities have the purpose of converting the resources into reserves or further improve the level of knowledge about a deposit.

Requirements to Conduct Mining Activities in Brazil

The Brazilian mining concession system encompasses all activities necessary for developing, exploiting and decommissioning a mine. To conduct mining activities in Brazil it is necessary to first obtain a mining concession from ANM and the corresponding environmental license(s) from the relevant environmental authority.

Within sixty days from the application for a mining concession with ANM, the miner shall prove that he aplied for the relevant environmental license with the environmental authorities. Thereafter, every six months, the miner shall prove to ANM that its environmental licensing process is in its due course and that it has (or it is complying with) all necessary actions and requirements in order to obtain the environmental license, otherwise it could prevent the granting of the mining concession. Upon the fulfilment of all legal requirements,[44] the mining concession is granted without a term, and is valid until total depletion of the deposit and mining closure.

[44] Mining Code and Ordinance no. 155/2016.

Other Mining Systems

Licensing System

In Brazil, the exploitation of sand, gravel, grit, and crushed stones for immediate use in the construction industry; rocks and other mineral substances for paving blocks, curbstones, gutters, posts, and the like; clays for various industries; rocks, when crushed for immediate use in civil construction and the limestones used as soil corrective in agriculture; ornamental and cladding rocks; and calcium and magnesium carbonates used in various industries is authorized to be conducted by third parties under a licensing system (regulated by Law no. 6,567/1978 and Ordinance no. 155/2016). This system includes specific characteristics such as **(i)** the areas subject to the licensing system are limited to 50 ha, **(ii)** it is under the jurisdiction of the municipality; and **(iii)** it does not require prior exploration license.

Small-Scale Mining Permit System

The small-scale mining permit is applicable to artisanal mining activities and is an exception to the mining concession system. This simplified system allows individuals to perform mining activities in areas of up to 50 ha and independent mining co-ops in areas of up to 10,000 ha in the Legal Amazon Forest and 1,000 ha in other regions.

The existence of other mining rights does not prevent the granting of a small-scale mining permit in the same area, which may be granted upon the conclusion of an administrative procedure, as long as the original title-holder gives authorization and the coexistent activities are technically and economically feasible.

In addition, interested parties must obtain permission from local authorities (mainly environmental licenses). Once granted, a small-scale mining consent is valid for five years and may be successively renewed at ANM's discretion. Recently, ANM enacted the Normative Ruling no. 22/2020 regarding the procedures and deadlines for the analysis and granting of small-scale mining permits.

Monopoly System

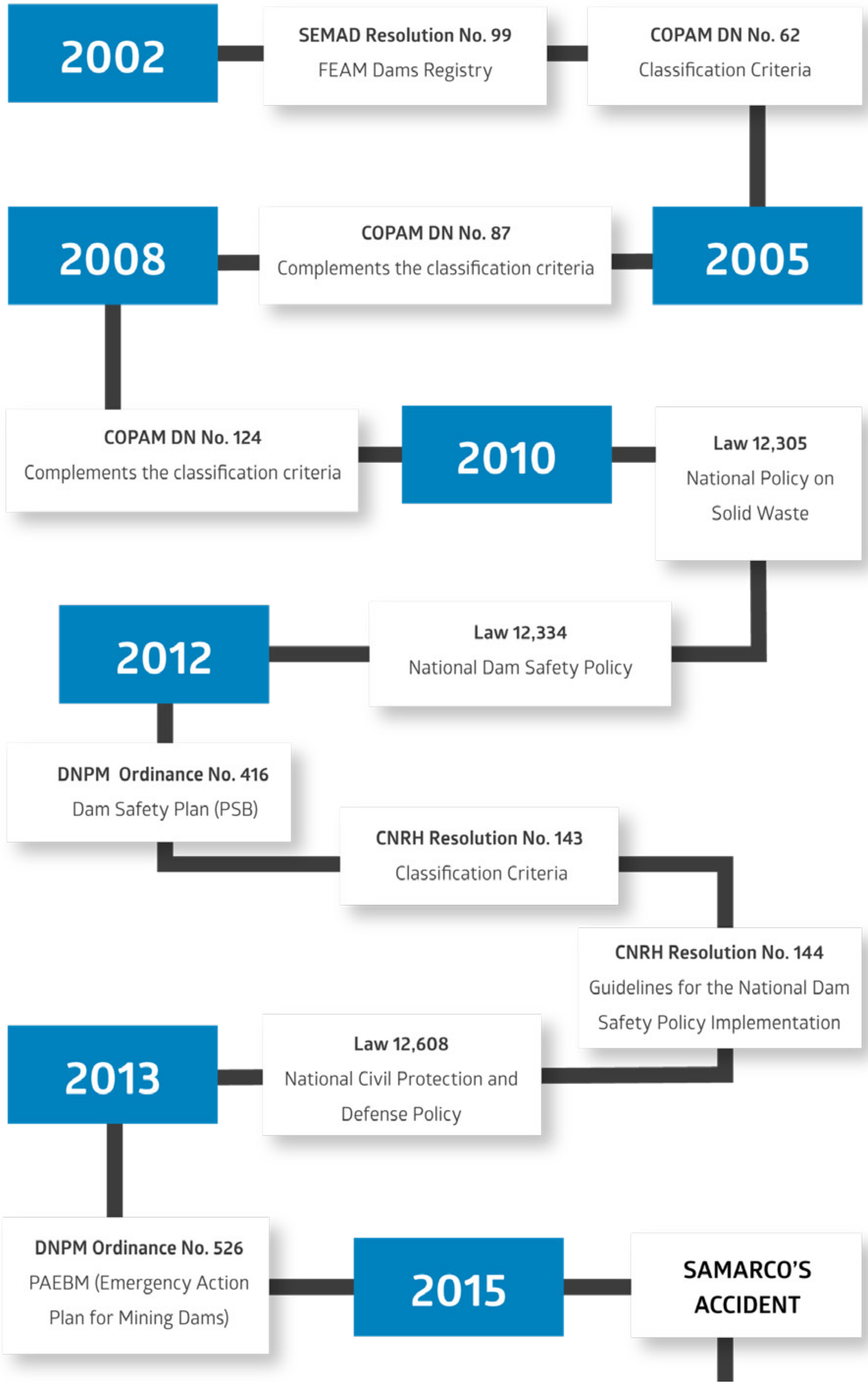
The monopoly system is applicable exclusively to nuclear minerals, which can only be exploited by the federal government (or by third parties in partnership with the federal government). Recently, the Ministry of Mines and Energy stated that the federal government has already drafted a constitutional amendment to present to Congress aimed at overturning this monopoly, but it is uncertain when and if it will pass.

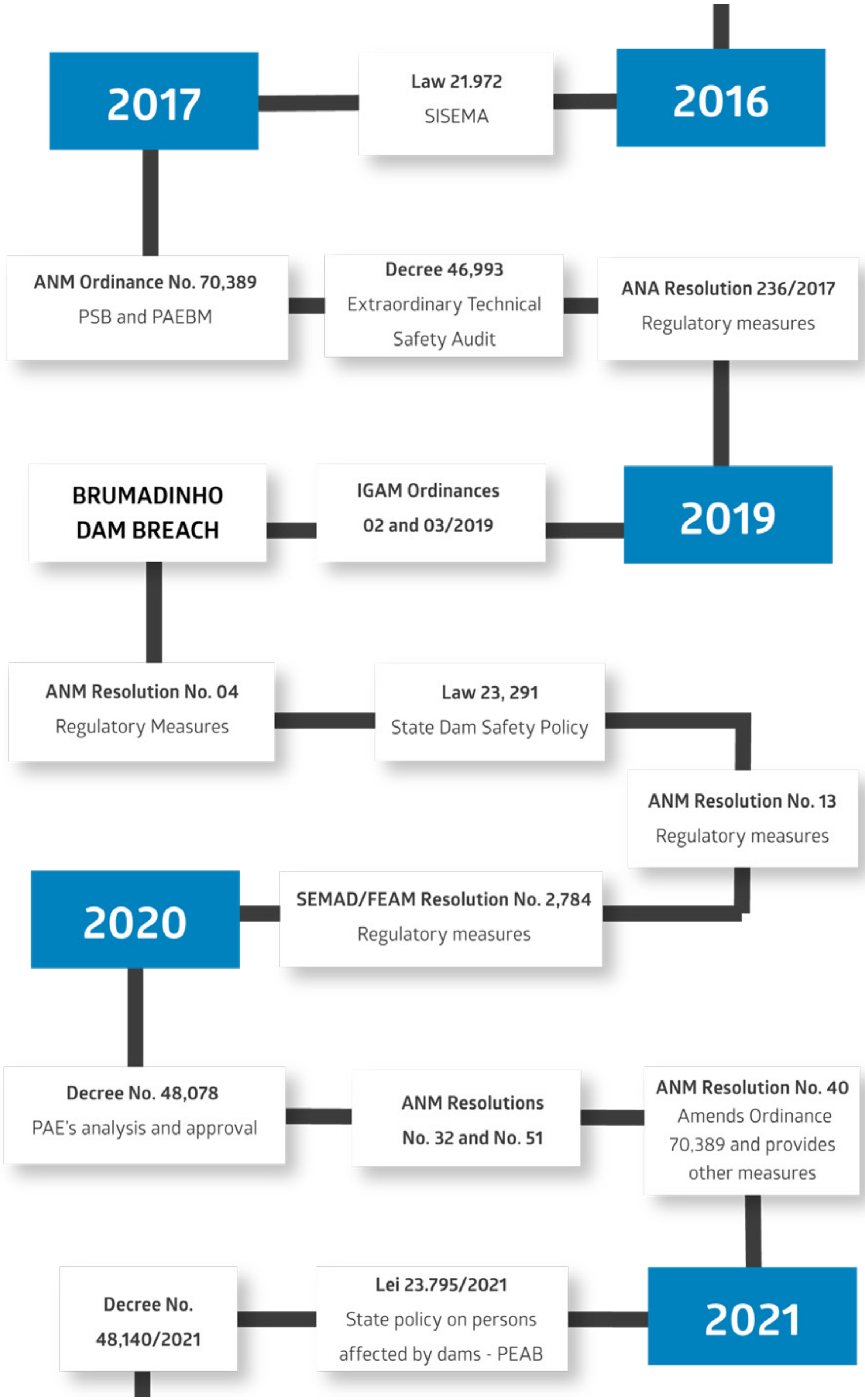
TAILING DAMS IN BRAZIL (MINING)

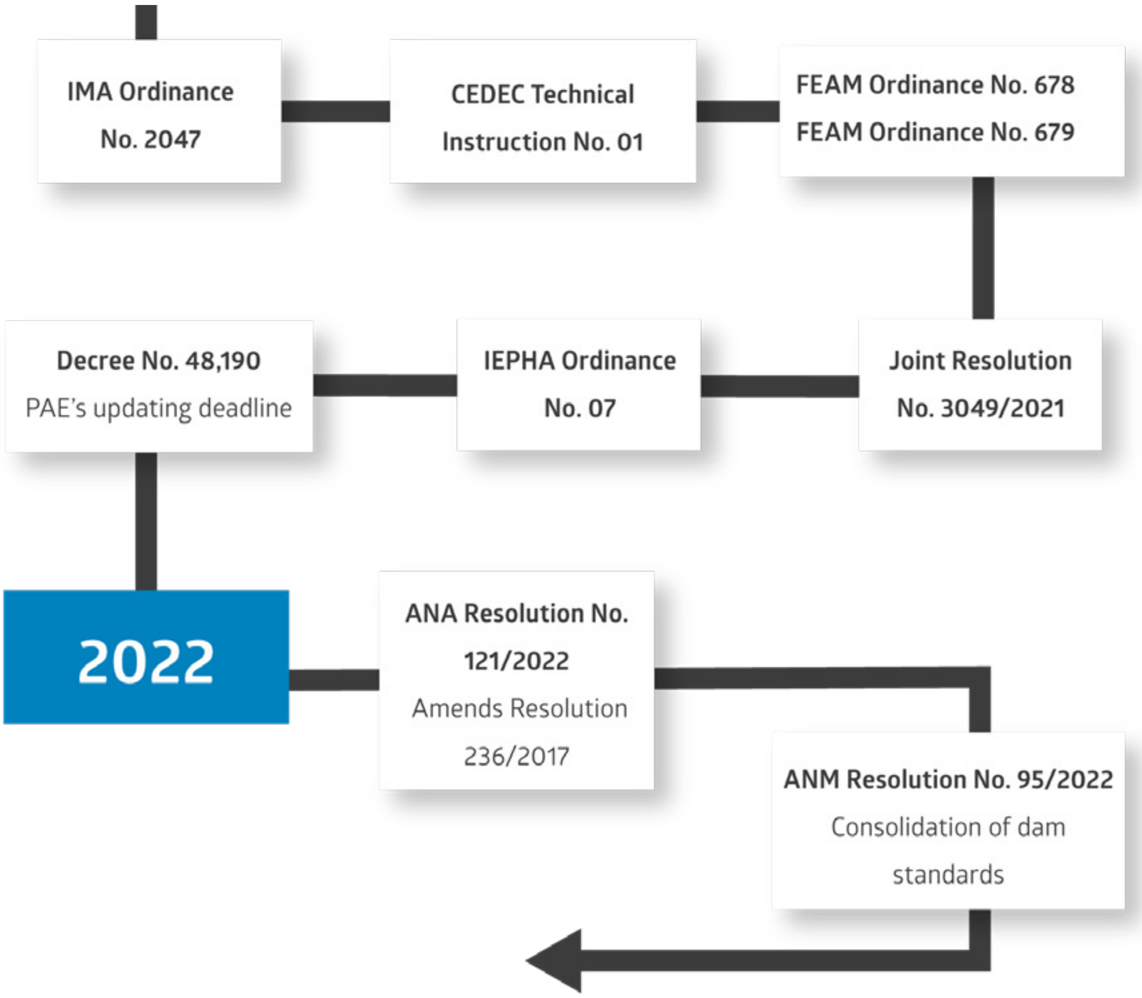
ACCIDENTS IN BRAZIL

YEAR	DAM	MUNICIPALITY	LEGISLATION
1977	Euclides da Cunha	São Paulo	Decree no. 10,752/1977
1986	Fernandinho	Rio Acima	-
2001	Rio Verde	Macacos	Normative deliberation no. 62/2002
2003	Indústria de Papel Cataguases Ltda	Cataguases	Bill no. 1181 (PNSB)
2006	Mineração Rio Pomba	Miraí	Normative deliberaton no. 87/2005
2007	Mineração Rio Pomba	Miraí	Normative deliberaton no. 124/2008
2014	Herculano	Itabirito	-
2015	Fundão	Mariana	ANEEL's Resolution no 696/2015; ANA's Resolution no 236/2017; Ordinance 70,389/2017
2019	Córrego do Feijão – B1	Brumadinho	PESB; ANM'S Resolution no. 13/2019; Review of Ordinance 70,389/2017
2022	Dique Lisa	Belo Horizonte	Possible regulation for tailings piles

THE PROGRESS OF LEGISLATION




2017
Law 21.972
SISEMA
2016
ANM Ordinance No. 70,389
PSB and PAEBM
Decree 46,993
Extraordinary Technical
Safety Audit
ANA Resolution 236/2017
Regulatory measures
BRUMADINHO
DAM BREACH
IGAM Ordinances
02 and 03/2019
2019
ANM Resolution No. 04
Regulatory Measures
Law 23, 291
State Dam Safety Policy
ANM Resolution No. 13
Regulatory measures
2020
SEMAD/FEAM Resolution No. 2,784
Regulatory measures
Decree No. 48,078
PAE's analysis and approval
ANM Resolutions
No. 32 and No. 51
ANM Resolution No. 40
Amends Ordinance
70,389 and provides
other measures
Decree No.
48,140/2021
Lei 23.795/2021
State policy on persons
affected by dams - PEAB
2021



The National Policy for Dam Safety (PNSB – Política Nacional de Segurança de Barragens) created by the Law no. 12,334/2010 established several goals and the obligations necessary to reach those goals, always seeking the compliance with dam safety standards to reduce accidents and their consequences.

As a general policy, the PNSB delegated more specific regulations to regulatory bodies and assigned the supervisory competence to these agencies with no harm to the supervisory action of environmental agencies that are part of the Environmental National System.

ANM, as the competent agency to oversee and regulate mining activities, regulated further aspects regarding tailings dams' safety since 2012 and very recently issued a new regulation – the Resolution ANM no. 95/2022, which consolidated and modernized all rules regarding tailings dams' safety aspects, aligning the regulatory framework with the changes brought to the National Policy on Dam Safety by Law no. 14,066/2020 and with the international dam safety guides.

In addition, although the competence to regulate the mining sector is exclusive of the federal government, what may lead to the conclusion that only federal government may enact laws regarding mining aspects, some States are seeking to create their own Dam Safety Policies. This is the case of Minas Gerais, Espírito Santo, Rio de Janeiro and Goiás.

Recently, Law no. 14,066/2020 entered into force and changed significantly the PNSB. One of these changes was the inclusion of the Engineering Best Practice Guides in dam safety managements as an instrument of the National Policy (as an example of this kind of guides, we mention the Global Industry Standard on Tailings Management issued by International Council on Mining & Metals – ICMM). It depicts the concern of the Brazilian legislator in integrating the management of tailings dams in Brazil with the good practice guidelines around the world.

As mentioned before, ANM published the Resolution no. 95/2022, which regulated the innovations brought by the law no. 14,066/2020 to the PNSB. Some of the main changes are the new concepts brought by the regulation, including what is understood as ALARP (As Low as Reasonable Possible), what are considered the critical controls, the obligation to high-risk dams be overseen by an Engineer of Records and to have a Risk Assessment Program.

All these changes bring the Brazilian dam safety regulatory framework way closer to the good practices around the world. In addition to this movement, it is very important to highlight again that since 2020 the good practice guides are considered an important tool to implement the Dam Safety National Policy.

Alongside with these new aspects, it is noteworthy the provisions regarding the need to automate the alert sirens triggering mechanisms. The system must be linked with the monitoring of the dam, which must also be automated. Due to this linkage, in case of emergency, the alert system is triggered automatically.

Regarding the numbers, according to SIGBM[45], Brazil currently has 928 tailings dams, of which 510 are built in a single stage, 197 raised by the downstream method, 105 by the centerline method, 66 by the upstream method or with unknown raising method and 50 without information about whether is raised or not.

After the incidents occurred in Mariana and Brumadinho, legislation concerning the disposal of tailings in dams significantly changed, peaking in the prohibition of the raising through the upstream and unknown methods and, furthermore, in determining the de-characterization of all the dams raised by the upstream method or with unknown information about the constructive and/or raising method.

Although the answers given to the society were necessary, the deadlines given to the fulfilment of the de-characterization of the upstream dams were potentially dangerous once the intense movement near the dams could reflect in triggers to liquefaction. For this reason, the recent changes in the Federal Law regarding tailings dams provided the possibility to the Mining Agency extend the deadline to the de-characterization, initially of February 25, 2022. It is noteworthy that the extension of this deadline may only be granted due to the technical unfeasibility and must be approved by the licensing authority member of SISNAMA.

Nonetheless, the National Mining Agency depicting concern with the sustainability of the mining activity and integration with the best practices of the sector around the world, regulated the reuse of mining waste through Resolution ANM No. 85/2021. The regulation unarguably improved the legal certainty around this activity and represents a great step towards a more sustainable mining.

[45] SIGBM. ANM. Available at https://app.anm.gov.br/SIGBM/Publico/Estatistica accessed at April 24, 2022.

TAXES, ROYALTIES AND INCENTIVES IN BRAZIL (MINING)

Brazilian tax legislation is complex. There are three jurisdictions and tax collection levels in Brazil (as defined by tax legislation): the Federal, State and Municipal levels. The main taxes levied are:

Corporate Income Tax ("IRPJ – Imposto de Renda Pessoa Jurídica"): The IRPJ is levied on annual company profits at the rate of 15%, plus a 10% surtax on profits which exceed R$240 thousand per year. Taxable income includes gross earnings minus allowable deductions. The term, "gross earnings," includes operational and non-operational income (interest, capital gains, etc.). Deductions are allowed whenever expenses are considered ordinary and necessary to the company's business activities. Business expenses, including interest paid to lenders, are generally deductible. Moreover, tax losses may be carried forward without any time restrictions, but compensation against future profits cannot exceed 30% of the profits obtained per year.

Social Contribution on the Net Income ("CSLL – Contribuição Social sobre o Lucro Líquido"): CSLL is a type of IRPJ surtax, as both of these taxes adopt the same tax basis. The CSLL is levied on the company's net income at the rate of 9%.

Gross Receipts Taxes – Contribution to the Social Integration Program ("PIS") and Social Security Funding Contribution ("COFINS"): Gross monthly revenue is subject to PIS and COFINS. Under current legislation, gross revenue includes not only operating revenues but also other types of accrued revenue. The rates of the PIS and COFINS vary depending on whether or not the taxpayer is subject to the cumulative system of the contributions. As a general rule, companies are subject to the noncumulative system and the PIS and COFINS rates are 1.65% and 7.6%, respectively. Financial revenue obtained by taxpayers subject to this system are taxed at 4.65%.

Furthermore, under the noncumulative system, the acquisition of certain goods (raw materials, packing materials, intermediary products and fixed assets) and services used in the company's operational activities grant PIS and COFINS credits at the same rates, making these charges similar to value-added taxes. The system applicable to the taxation of financial revenue does not allow the recognition of tax credits. These credits can be offset against the PIS and COFINS fees owed as a result of future operations. If credits exceed debits, the credit balance of one month can be carried forward to offset PIS and COFINS debits in subsequent months.

The export of goods or services is PIS and COFINS exempt, regardless of the calculation of the tax system to which the company is subject. In specific situations, exporting companies may use accumulated PIS and COFINS credits to offset other federal tax liabilities non related to PIS and COFINS. Lastly, it is worth noting that some companies may be subject to a specific PIS and COFINS system, which may result in a total tax burden greater than that explained herein (regime monofásico).

A state value-added tax on services and circulation of goods ("ICMS"): ICMS is a value-added tax, applied across all stages of a product's commercial life cycle and calculated in accordance with the "debit and credit" method. Thus, ICMS debits owed on the sale of products may be offset against ICMS credits booked in connection to the acquisition of raw materials, intermediary products, packing materials and fixed assets used in connection with the company's operational activities. If credits exceed debits, the credit balance of one month may be carried forward to offset ICMS debits in subsequent months.

The tax is assessed based on the price of the product sold. The tax basis mechanism includes the amount of the tax due on its own base (tax on tax), so that the effective ICMS rate is higher than those indicated below. ICMS rates vary according to the state, within the limits set forth in the relevant federal legislation, as well as the product and its destination: internal transactions (within the same state) are usually taxed at the rate of 19%, 18% or 17%, depending on the internal legislation of the state. The rate applicable to interstate transactions, which involve the transfer of goods from one state to another, is 7% or 12%.

Please note that some states charge an additional rate in addition to the standard ICMS rates, which may increase the total ICMS burden. Export transactions are ICMS exempt.

Tax on Financial Transactions ("IOF – Imposto sobre Operações Financeiras"): This is a federal tax levied on credit, exchange, insurance and securities transactions executed through financial institutions.

IOF/Credit Tax is applied to financial transactions, except for loans extended by foreign entities to Brazilian borrowers, which are not subject to IOF/Credit Tax.

Loans granted by Brazilian entities, either to Brazilian or foreign borrowers, are generally subject to a daily IOF rate of 0.041%, calculated based on the amount which is lent. As of January 2008, any loan transaction is also subject to the additional rate of 0.38%.

Furthermore, Brazilian law imposes a tax on foreign exchange transactions ("IOF/Exchange Tax") due on the conversion of reais into foreign currency and vice versa. The current applicable rate for almost all foreign currency exchange transactions, including investments in Brazilian companies carried out outside the Brazilian stock exchange, is 0.38%.

Services Tax ("ISS – Imposto Sobre Serviços"): ISS is a municipal tax assessed on revenue derived from rendering general services, except for intermunicipal and interstate transport and communication services, which are taxed by ICMS.

The services subject to ISS are those expressly included in a federal "taxable services" list, which must be respected by the municipalities in order to assess the tax. ISS rates vary from municipality to municipality, and also depend on the service rendered, but they cannot exceed 5% and cannot be lower than 2%. The tax base is the price of the service rendered.

As a general rule, ISS is owed to the municipality in which the service provider is located, except for some services, such as civil construction and related services, in which case ISS is owed to the municipality where the services are rendered.

Payroll and Other Social Security Contributions: As a rule, social security contributions are owed to the Internal Revenue Service on the company's payroll at the rate of 20%.

There are additional contributions imposed at rates that usually vary from 3.5% to 8.8%, which are owed to other government agencies. The rates of these contributions vary depending on the company's line of business. Additional increases to the rates mentioned herein may also apply depending on the line of business.

Furthermore, the company must make monthly contributions to FGTS at a rate of 8% of each employee's base salary plus benefits.

Excise Tax ("IPI – Imposto sobre Produtos Industrializados"): This federal tax is not applicable to mining activities.

Import Tax ("II – Imposto de Importação"): In the case of imports of mineral products, the rates of this tax often vary from 0% to 9%, although there are several exceptions that are subject to higher or lower rates.

In addition to these taxes and any other taxes generally paid by Brazilian companies, such as those for environmental licenses, labor and social security expenses (average 20% on wages and other paid earnings) and FGTS ("Fundo de Garantia por Tempo de Serviço"), there are other taxes and fees payable by a mining company. The additional material tax and fees related to the mining sector are:

- **Financial Compensation for Exploiting Mineral Resources ("CFEM – Compensação Financeira pela Exploração de Recursos Minerais"):** The rate, which varies according to the mineral, ranges from 0.2% up to 3.5% and is calculated based on the mineral net revenue or its cost when used in industrialization.[46]
- **Land Owner Royalty:** During the exploitation phase, under the concession system, if the land does not belong to the concessionaire, royalty must be paid by the last business day of the month subsequent to the taxable event. The value of this royalty is normally 50% of the accrued value of the CFEM.[47]

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[46] According to the Appendix of Federal Law 13,540/2017:

- 1% for rocks, sand, gravel, clay and other mineral substances when immediately extracted in construction-related activities; ornamental rocks, mineral and thermal waters;
- 1.5% for gold;
- 2% for diamond and other mineral substances;
- 3% for bauxite, manganese, niobium, and rock salt;
- 3.5% for iron ore*.

* The Mining Agency is authorized to reduce iron ore's rate to up to 2% for mineral deposits with feasibility compromised due to low grades, production scale, taxation or the number of employees. This reduction shall be regulated by a Presidential Decree, which was not published until the date of conclusion of the analysis herein.

[47] Property tax (IPTU) is levied annually abased on the fair market value and it varies by Municipality (range from 0.3% to 1.5%).

- **Annual fee per hectare ("TAH – Taxa Anual por Hectare"):** R$ 4.33 per hectare during the term of the mining exploration license and R$ 6,48 per hectare during any extended term.[48]

- **TFRM:** In certain states, the holder may also be subject to the Control, Monitoring and Inspection Fee for Exploration, Production, Extraction, Transport and Use of Mineral Resources (Taxa de Controle, Acompanhamento e Fiscalização das Atividades de Pesquisa, Lavra, Extração, Transporte e de Aproveitamento de Recursos Minerários [TFRM]) due on the mining activities of exploration, production, exploitation and development of mineral resources. The amounts of TFRM may vary from state to state.

ADDITIONAL TAXES AND FEES FOR MINING COMPANIES:

CFEM	LAND OWNER ROYALTY	TAH	TFRM
Financial Compensation for Exploiting Mineral Resources (CFEM): The rate of CFEM varies based on the mineral, ranging from 0.2% to 3.5%. It is calculated based on the mineral's net revenue or its cost when used in industrialization.	Land Owner Royalty: If the land does not belong to the mining concessionaire, a royalty is paid, typically 50% of the accrued value of the CFEM.	Annual fee per hectare (TAH): An annual fee per hectare is applicable during the term of the mining exploration license and any extended term.	Controlling, Monitoring, and Supervision Tax (TFRM): In certain federal states, mining companies may be subject to TFRM, which is due on mining activities and can vary from state to state.

[48] The TAH value is updated yearly by ANM. The values shown above are valid until February 29, 2024, according to ANM's Resolution No. 132/2023.

ENVIRONMENTAL LAW IN BRAZIL (MINING)

Pursuant to Brazilian law, federal, state and municipal governments are entitled to pass legislation and require authorizations, licenses and permits containing provisions for the control and protection of the environment, and of historical and cultural heritage.

Federal and state governments in Brazil have concurrent jurisdiction over: **(i)** the protection of the natural environment, including forests, fauna, conservation of nature, protection of the soil and natural resources as well as pollution control; **(ii)** protection of the cultural environment, including the protection of historic, artistic and landscape environments; and **(iii)** liabilities for environmental damages. This jurisdiction is also shared by the Municipalities regarding specific matters of local interest.

Liability for environmental damage splits in civil, administrative and criminal branches depending on the nature, extent and conduct of an agent, and can occur cumulatively or separately.

Mineral exploration and mining in Brazil are subject to environmental licensing. This consists of an administrative procedure, where the relevant environmental authority assess the project and authorizes the company to conduct exploration or exploitation.

There are three types of environmental licenses in Brazil:

- **Advance (also called provisional) Licenses (LP):** Certifies the viability of the project (including approval of the site and planning) and establish the basic requirements and conditions that must be fulfilled in subsequent phases. It is worth noting that the licensing of projects that could potentially or effectively cause degradation is subject to submission to and approval by the environmental authorities of the environmental impact assessment.

- **Installation Licenses (LI):** Authorize commencement of construction (installation of the enterprise or activity) according to the specifications set out in the approved plans and programs, and define the environmental control measures, etc.

- **Operating licenses (LO):** Granted when the project is ready and able to operate following an assessment of compliance with the terms of the preceding licenses.

All types of environmental licenses have a defined term and cannot be transferred. The holder of an environmental license must apply for its renewal no more than 120 days before its term is due to end. In the case of a change in control of a company holding mineral rights and assets, or in the event of a sale of assets and mineral rights, a company is required to file a request to issue a new license with the state environmental authority. Under the existing regulations, the cost of a new license may range from C$2,000 to C$20,000. This is in addition to expenses relating to visits and a 5% administrative fee.

According to Brazilian law, a company that acquires a business with environmental liabilities is deemed to be its successor and therefore assumes said environmental liabilities, although the parties in an acquisition transaction are free to negotiate and limit their respective liabilities.

Mining activities and facilities are subject to environmental licensing procedures to the extent that they consume environmental resources, pollute, and cause or have the potential to cause environmental impacts.

The use of water resources requires, in most cases, an authorization from the environmental agency. Lastly, environmental compensation of different natures may be applied in connection with projects (not only mineral projects) that may strongly affect the environment.

Besides the provisions of the Brazilian Federal Constitution, the main environmental legislation includes:

Legislation	Content
Law no. 6,938/1981	Regarding the national environmental policy.
Law no. 9,605/1998	Regarding environmental crimes.
Decree no. 6,514/2008	Regarding administrative penalties.
Law no. 9,433/1997	Regarding water resources.
Law no. 12,305/2010	Regarding the solid wastes policy.
Law no. 12,651/2012	Regarding the forest code.

The main environmental agencies are:

- The Ministry of the Environment, which is responsible for the national environmental policy;
- The Brazilian Institute of Environment and Renewable Natural Resources (IBAMA), which is responsible for the execution of the national environmental policy at the federal level;
- The National Council for the Environment (CONAMA), which is a committee responsible for consultative and deliberative measures regarding the national environment system (SISNAMA); and state (and sometimes also municipal) environmental bodies.

For example, in the State of Minas Gerais (one of the most important states in the Brazilian mining industry), a technical committee specialized in mining activities – Council of Environmental Policy (COPAM) – is responsible for giving opinions on environmental licensing requirements and the analysis of administrative appeals regarding the penalties imposed by State Law no. 7,772/1980 and State Decree no. 47,383/2018.

BRAZILIAN MINERAL EXPLORATION AND MINING COMPANIES ON THE B3

B3 S.A. – Brasil, Bolsa, Balcão ("B3") is currently the only stock exchange operating in Brazil and is the largest stock exchange in Latin America. Currently there are 4 mining companies listed on B3 with shares traded[49]:

VALE

with a market capitalization of R$ 440,279,066,690.00

CSN Companhia Siderúrgica Nacional

with a market capitalization of R$ 24,903,438,320.00

cba

with a market capitalization of R$ 7,394,291,660.00

aura 360° MINING

with primary listing on the Toronto Stock Exchange and Brazilian Depository Receipts (BDRs) listed on B3.

Vale is listed in the Novo Mercado corporate governance segment. This segment is intended for shares issued by companies that choose to comply with higher corporate governance practices and transparency requirements, in addition to those set forth by Law no. 6,404, dated December 15, 1976, as amended ("Brazilian Corporate Law") and by the Brazilian Securities Commission (Comissão de Valores Mobiliários or "CVM").

Vale is one of the largest mining companies in the world and the one of the most lucrative in Brazil. The mining giant is also part of the Bovespa Index, an index comprised of companies with the highest trading volumes.

Aura is a Canadian mining company focused on the production of gold and copper and is listed on the Toronto Stock Exchange ("TSX"). The company completed its initial public offering of BDRs on 2020 with restricted selling efforts.

[49] Considering their values on January 18th, 2023. on January 17, 2023.. "Valor de mercado das empresas listadas". B3, 2023. Available at: https://www.b3.com.br/pt_br/market-data-e-indices/servicos-de-dados/market-data/consultas/mercado-a-vista/valor-de-mercado-das-empresas-listadas/bolsa-de-valores-diario/

It is important to mention that other major Brazilian conglomerates and steel companies listed on B3 also include mining operations, such as Gerdau S.A., Cia de Ferro Ligas da Bahia – Ferbasa, and Usinas Siderúrgicas de Minas Gerais S.A. – USIMINAS. All of these companies are currently listed in the Nível 1 corporate governance segment, in which the companies are obliged to, among other requirements, maintain a free-float of at least 25% of the share capital; promote capital dispersion on public offerings and improve their quarterly financial reports – ITR Form to include the disclosure of relevant party transactions with special audit revision.

As described above, Brazilian equity capital markets have been accessed by a few major companies and therefore have a significant growth potential if other mining companies (especially medium-sized ones) are able to access this funding alternative. B3 is currently evaluating alternatives to make it possible for smaller companies (including from the mining sector) to go public on the Brazilian stock market.

There have been several discussions involving Brazilian mining associations, mining companies, securities regulators and the Brazilian mining agency.[50] There is a real interest in improving Brazilian capital markets to create the environment needed for Brazilian mineral exploration and mining companies to access public equity capital. In the meantime, listing on the Toronto Stock Exchange, Toronto Stock Exchange – Venture, and issuing BDRs in Brazil seems to be an interesting alternative for Brazilian mineral exploration and mining companies.

[50] "How stock exchange operator B3 is seeking to incorporate Brazil's mining juniors". BNAmericas, 2020. Available at: https://www.bnamericas.com/en/news/how-stock-exchange-operator-b3-is-seeking-to-incorporate-brazils-mining-juniors.