



# MARKET RESEARCH



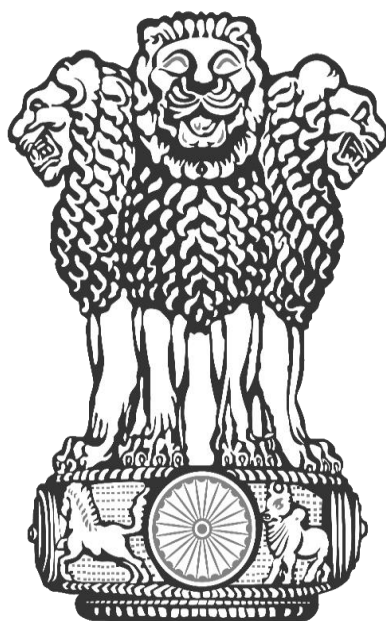
## *MINING SECTOR 2026*



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**Economic Diplomacy Division**  
**Ministry of External Affairs**





## INDEX

|                                                                                |           |
|--------------------------------------------------------------------------------|-----------|
| <b>PART I POLITICAL AND ECONOMIC SITUATION OF VENEZUELA.....</b>               | <b>8</b>  |
| Geographic and Demographic Overview of Venezuela .....                         | 8         |
| Political-Economic Perspectives and Institutional Reforms .....                | 10        |
| Economic Growth and GDP Dynamics .....                                         | 11        |
| Inflation and Purchasing Power .....                                           | 14        |
| International Reserves and External Debt .....                                 | 14        |
| International Reserves Trade Balance and Bilateral Relations .....             | 15        |
| <b>PART II EXCHANGE MARKET AND PAYMENT MANAGEMENT.....</b>                     | <b>18</b> |
| Characteristics of the exchange market in Venezuela .....                      | 18        |
| Dynamics of the exchange rate gap and supply deficit .....                     | 18        |
| Challenges for international capital and repatriation of dividends.....        | 20        |
| Future expectations: towards a return to the financial system.....             | 22        |
| <b>PART III GENERAL GEOLOGICAL CHARACTERIZATION .....</b>                      | <b>24</b> |
| Nickel (Ni) and Manganese .....                                                | 25        |
| Coltan and Rare-Earth Elements .....                                           | 26        |
| Lithium (Li).....                                                              | 28        |
| Gold (Au) .....                                                                | 28        |
| Industrial Metals (Iron and Bauxite) .....                                     | 30        |
| Analysis of Barriers to Entry, Infrastructure and Risks .....                  | 35        |
| <b>PART IV MAPPING THE SECTORAL CORPORATE ECOSYSTEM .....</b>                  | <b>40</b> |
| The Venezuelan Guayana Corporation (CVG) and its central role .....            | 40        |
| 1. CVG Bauxilum: Extraction of bauxite (a precursor mineral of aluminum) ..... | 41        |
| 2. CVG Venalum: Primary aluminum production .....                              | 41        |
| 3. CVG Alcasa: Second aluminum reduction plant .....                           | 41        |
| 4. CVG Ferrominera Orinoco: Iron extraction for the steel industry .....       | 41        |
| Value chain integration and hydroelectric comparative advantage .....          | 42        |
| Corporación Venezolana de Minería (CVM) .....                                  | 44        |
| Minera Loma de Níquel C.A.:.....                                               | 44        |
| Joint Venture Minera Ecosocialista Parguaza, S.A. ....                         | 45        |
| Joint Venture Minera Ecosocialista Oro Azul, S.A. (EMMEOA).....                | 45        |



|                                                                                     |           |
|-------------------------------------------------------------------------------------|-----------|
|                                                                                     | 6         |
| Técnica Minera C.A. (Tecmin) .....                                                  | 46        |
| Operational merger between CVM and the State Minerven .....                         | 49        |
| What was Minerven? .....                                                            | 49        |
| The merger decree.....                                                              | 50        |
| The extinction of Minerven and its institutional implications.....                  | 50        |
| Strategic implications for Indian investment .....                                  | 52        |
| Siderúrgica del Orinoco (SIDOR): Current Operational Scenario .....                 | 53        |
| Production at an all-time low .....                                                 | 53        |
| Revitalization potential: the "green steel" argument .....                          | 53        |
| The new legislative framework as a lever for attracting capital .....               | 54        |
| <b>PART V LEGAL STABILITY AND RESTRUCTURING PROCEDURE OF</b>                        |           |
| <b>REGULATIONS.....</b>                                                             | <b>57</b> |
| Special Economic Zones (SEZs) and the optimization of tariff and tax benefits ..... | 59        |
| Impact on investors.....                                                            | 59        |
| <b>PART VI PAYMENT MANAGEMENT AND CROSS-BORDER FINANCIAL</b>                        |           |
| <b>ARCHITECTURE IN THE MINING SECTOR .....</b>                                      | <b>61</b> |
| <b>PART VII FINAL CONSIDERATIONS.....</b>                                           | <b>64</b> |



# PART I

## POLITICAL AND ECONOMIC SITUATION OF VENEZUELA



## PART I

### POLITICAL AND ECONOMIC SITUATION OF VENEZUELA

#### Geographic and Demographic Overview of Venezuela

Venezuela is located in the northernmost part of South America, bordering the Caribbean Sea to the north, the Cooperative Republic of Guyana and the Atlantic Ocean to the east, the Federative Republic of Brazil to the south, and the Republic of Colombia to the west. Its total area of 916,445 km<sup>2</sup> makes it the sixth largest country in Latin America <sup>1</sup>. The territory is administratively organized into 23 states, a Capital District, and Federal Dependencies, and is geographically articulated into five major natural regions: the Llanos region, the Andean region, the Coastal region, the Guayana region, and the Amazonian region.

In demographic terms, the National Survey of Living Conditions (Encuesta Nacional de Condiciones de Vida) produced by the Institute of Economic and Social Research of the Andrés Bello Catholic University (IIES-UCAB) estimates Venezuela's population at 29.37 million inhabitants for 2024<sup>2</sup>, a figure that reflects the cumulative impact of sustained migratory outflows since 2015. The average population density is 30.8 inhabitants per km<sup>2</sup>, although the distribution is markedly uneven: more than 75% of the population is concentrated in the northern coastal strip and in the country's central axis.

This extensive coastal strip, spanning more than 2,813 kilometers along the Caribbean Sea and 700 kilometers along the Atlantic Ocean, not only concentrates the majority of the population, but also grants the country a privileged geostrategic position as a gateway to Latin America. Its maritime location functions as a natural and direct channel linking the region to global markets in North America, Central America, the Caribbean, Europe, and Asia, while also facilitating access to the Panama Canal route.

#### Areas of Highest Population Concentration

The most populous states are Zulia (with its capital Maracaibo, the country's second most populated city), Miranda, Carabobo, Lara, and the Capital District (Caracas), which together concentrate approximately 55% of the national population<sup>3</sup>. The Caracas–Valencia–Maracay axis represents the country's highest-density industrial and services corridor. Venezuelan agricultural production also has a significant presence in this central strip, particularly regarding horticulture in the valleys of the coastal mountain range<sup>4</sup>.

This demographic and industrial concentration in the north-central and western regions of the country greatly facilitates commercial penetration, given the strategic proximity to the main maritime terminals. With the majority of consumers concentrated within very short distances of key infrastructure such as Puerto Cabello, La Guaira, and the port of Maracaibo, a logistical advantage

<sup>1</sup>[https://www.exteriores.gob.es/documentos/fichaspais/venezuela\\_ficha%20pais.pdf](https://www.exteriores.gob.es/documentos/fichaspais/venezuela_ficha%20pais.pdf)

<sup>2</sup>[https://cdn.prod.website-files.com/5d14c6a5c4ad42a4e794d0f7/6803aedd2dfc5c19a4ac96cd\\_ENCOVI%202024\\_presentacio%CC%81n\\_integrada.pdf](https://cdn.prod.website-files.com/5d14c6a5c4ad42a4e794d0f7/6803aedd2dfc5c19a4ac96cd_ENCOVI%202024_presentacio%CC%81n_integrada.pdf)

<sup>3</sup><https://www.proyectoencovi.com/encovi-2024>

<sup>4</sup><https://www.fao.org/venezuela/venezuela/venezuela-en-una-mirada/es/>



is created that expedites distribution and direct supply of the domestic market. These terminals thereby function as direct gateways to the most populated areas, reducing transit times. In this context, port economics function as the main artery of the nation's commercial and fiscal activity. Although in recent decades this model gave rise to a deep dependence on consumer goods imports, port infrastructure remains the irreplaceable engine for Venezuelan exports.

### Areas of Lowest Population Concentration

The states with the lowest population density are located in the south and southeast of the country. The states of Amazonas, Delta Amacuro, and Bolívar have the lowest relative density, despite together covering more than 35% of the national territory<sup>5</sup>. This low density is explained by tropical rainforest coverage, a scarcity of road infrastructure, and the remoteness from consumption centers, although these regions hold the country's largest natural resource reserves, particularly those near the Orinoco Mining Arc (AMO).

### Primary Mining Areas

Venezuelan mining activity is fundamentally concentrated in the Orinoco Mining Arc (AMO), which covers an area of more than 113,598 km<sup>2</sup> in Bolívar state, equivalent to 12.4% of the national territory, where reserves of gold, diamonds, coltan, copper, iron, and bauxite are found, with the potential participation of 150 companies from 35 countries<sup>6</sup>.

Venezuela holds the world's largest proven oil reserves, with approximately 303 billion barrels according to data from the Organization of the Petroleum Exporting Countries (OPEC), a figure confirmed by multiple international organizations including the U.S. Energy Information Administration (EIA) and the BP Statistical Review<sup>7</sup>. The majority of these reserves are located in the Orinoco Oil Belt, situated across the states of Anzoátegui, Monagas, Guárico, and Apure, followed by reserves in the country's northwest in the states of Falcón and Zulia<sup>8</sup>.

### Primary Agricultural Areas

Venezuelan agricultural production is concentrated in the west-central and plains regions. Its geographic location gives the country strong potential for tropical agriculture, enabling high yields in permanent crops such as coffee, cocoa, oil palm, and fruit trees, or semi-permanent crops such as sugarcane, plantain, and cassava<sup>9</sup>. Portuguesa state is the country's main agricultural hub: with approximately 800,000 hectares suitable for farming, it generates more than 50% of national maize production, 65% of rice, and 52% of sugarcane<sup>10</sup>.

<sup>5</sup> <https://www.proyectoencovi.com/encovi-2024>

<sup>6</sup> [https://www.sinembargo.mx/4746786/datos-tiene-petroleo-gas-oro-tierras-raras-venezuela-es-el-gran-pastel-para-eu/?\\_cf\\_chl=tk=NpjU6B6qRVeeIWXXKx6JqdmW8.tVq3mNM\\_7i3IsLyVg-1781282300-1.0.1.1-ij62Lt12LNRFLcleePITUmuoJ8EmdWyY.iCRwKl.gU](https://www.sinembargo.mx/4746786/datos-tiene-petroleo-gas-oro-tierras-raras-venezuela-es-el-gran-pastel-para-eu/?_cf_chl=tk=NpjU6B6qRVeeIWXXKx6JqdmW8.tVq3mNM_7i3IsLyVg-1781282300-1.0.1.1-ij62Lt12LNRFLcleePITUmuoJ8EmdWyY.iCRwKl.gU)

<sup>7</sup> <https://www.elimparcial.com/mundo/2025/12/01/venezuela-posee-303000-millones-de-barriles-de-petroleo-la-mayor-reserva-probada-del-mundo-confirmada-por-organismos-internacionales/>

<sup>8</sup> <https://www.analitica.com/economia/pdvsa-reservas-probadas-de-petroleo-de-venezuela-superan-los-300-800-millones-de-barriles/>

<sup>9</sup> <https://www.fao.org/venezuela/venezuela/venezuela-en-una-mirada/es/>

<sup>10</sup> <https://fedegro.org/wp-content/uploads/2025/03/Resultados-2024-WEB.pdf>



The states of Barinas, Guárico, Cojedes, and Apure complete the plains axis of cereal and livestock production. In the Andean region, the states of Mérida, Táchira, and Trujillo concentrate production of vegetables, potatoes, and coffee, with family-based operations adapted to hillside topography. Zulia state, in its Sur del Lago de Maracaibo sub-region, is the country's leading producer of plantain and oil palm. The states of Aragua, Carabobo, and Yaracuy form the central agro-industrial axis, with production of sugarcane, maize, and vegetables<sup>11</sup>.

### Political-Economic Perspectives and Institutional Reforms

Currently, the country is in a political situation of instability and forced environmental changes—especially in the political and economic spheres. De facto power operates under the figure of Delcy Rodríguez as acting president following her swearing-in on January 5, acting parallel to the influence of the United States in the process. According to the announcement by the United States Secretary of State, Marco Rubio, the evolution of events for Venezuela is projected in three operational phases: stabilization, economic recovery, and transition<sup>12</sup>.

In this process, there coexists internal tensions between the interim government—whose stabilization depends on the support of the armed forces and U.S. approval—and opposition forces backed by the international community, which demand greater clarity regarding the process termed "transition." Despite the resilience of the Venezuelan economy, where the adoption of digital payments, de facto dollarization, and the adoption of crypto assets by people have guaranteed momentary stability, the inflation projection estimated by the International Monetary Fund (IMF) remains high for 2026, posing a hyperinflation scenario of 628.8%<sup>13</sup>. this, of course, with variables subject to unpredictability—and with the possibility of changes favoring market dynamics that were not considered by the study.

Therefore, in accordance with on-site events, diagnoses made by national or multilateral organizations are conditioned by the decisions that are made daily within public branches of government. Namely, the positive socioeconomic reforms are already materializing, such as the partial reform of the Ley de Hidrocarburos (January 2026)<sup>14</sup>—which, fundamentally, allows for greater private participation—the approval of the Industrial Property and Socioeconomic Rights Laws, and the contemplation of future laws regarding administrative dynamization or electrical modernization<sup>15</sup>. This acts as a catalyst for the economy, and the effectiveness of the reforms and proposals—beyond their legislative approval—can modify the initial perspectives on the evolution of the Venezuelan economy for the coming years.

<sup>11</sup> Ibid.

<sup>12</sup> <https://www.bbc.com/mundo/articles/cwywpdoxnzno>

<sup>13</sup> <https://www.bloomberglinea.com/latinoamerica/venezuela/fmi-proyecta-inflacion-de-682-en-venezuela-en-2026-ademas-de-contraccion-en-su-economia/>

<sup>14</sup> <https://www.bbc.com/mundo/articles/cg7y4kznypgo>

<sup>15</sup> <https://www.asambleanacional.gob.ve/noticias/parlamento-aprueba-plan-basico-legislativo-2026-2027>



Preliminarily, the expectations and reception of the domestic and foreign markets have been positive. For example, the exchange rate gap decreased to 34.94%<sup>16</sup> in early 2026, which is a significant improvement compared to the 90% recorded in December 2025<sup>17</sup>; this reduction acts as a natural stabilizer, as it slows down the implicit devaluation of purchasing power and grants greater predictability in price structure to producers and consumers, which is vital for projecting the demand for goods. Also, a 30%<sup>18</sup> revaluation of the country's government bonds and those of PDVSA (the national company that monopolizes the hydrocarbon sector) was perceived, indicating that external anticipation of possible economic and institutional changes manifests favorably for the productive environment.

Within this framework, given the instability in the Middle East resulting from the conflict between Iran and the United States, Venezuela positions itself as a relevant actor in the international arena. This is because, in the short term, the increase in oil prices stimulates the demand for B2B services, corporate technology, and logistics, and improves general macroeconomic conditions, benefiting all sectors of the economy due to the interconnection between the economy and oil. However, in the long term—the one considered due to the unpredictability of the conflict's extension keeping prices high—Venezuela, as an energy provider for the United States and Europe, positions the country as an attractive hub for investments, which will possibly impact the country's productive environment, which boasts enormous potential.

Because Installed Capacity Utilization (ICU) is around 52%<sup>19</sup>, Venezuela's strategic relevance in the hydrocarbon sector can materialize into growth across various high-growth sectors, such as those previously mentioned, by taking advantage of this idle capacity. Despite the optimism, basic infrastructure—such as the electrical grid—and monetary and fiscal policies—legal reserve requirements and tax levels—need favorable reforms for the productive sector in order to achieve the aforementioned production possibilities.

### Economic Growth and GDP Dynamics

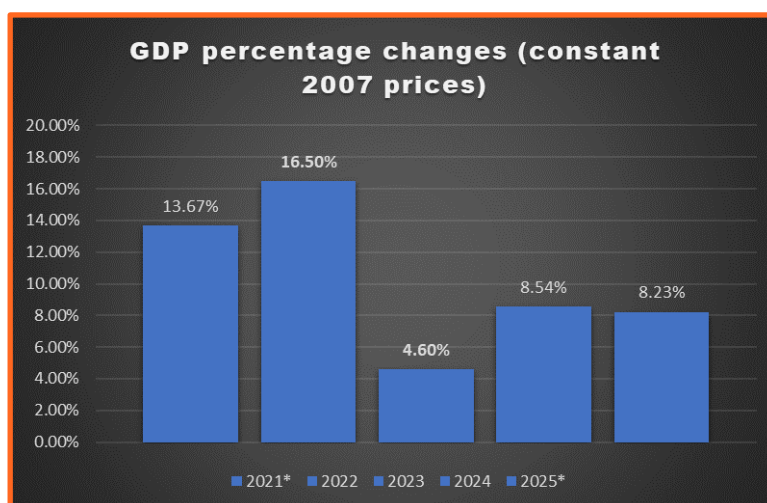
According to data provided by Banco Central de Venezuela (BCV) from the second quarter of 2021 to the third quarter of 2025, the Venezuelan economy has shown pronounced variations in its economic growth, with high growth rates (16.50%) in 2021, while shows difficulties for its consolidation, with a sharp drop in 2023 and a gradual recovery in the subsequent years.

<sup>16</sup> <https://www.bcv.org.ve/estadisticas/tipo-cambio-de-referencia-smc> <https://monitordolarve.com/precio-del-dolar-en-venezuela-hoy-tasa-bcv-y-monitor-27-de-febrero-de-2026/>

<sup>17</sup> <https://bitacoraeconomica.com/economistas-brecha-cambiaria-muertesubasta-bcv/>

<sup>18</sup> <https://www.bloomberglinea.com/mercados/bonos-de-venezuela-y-pdvs-suben-mas-de-30-en-la-semana-pero-hay-desafios-por-delante/>

<sup>19</sup> <https://finanzasdigital.com/conindustria-capacidad-instalada-2025/>



**Source:** Own elaboration, based on data from Banco Central de Venezuela and the International Monetary Fund<sup>20</sup>.

Now, in the following table, a comparison is made between Banco Central de Venezuela (BCV) and international multilateral organizations, comparing the percentage growth of the country's Gross Domestic Product (GDP). The most significant contrast is demonstrated in the data provided by the International Monetary Fund (IMF), which has projected notably lower percentages in 2024 and 2025 compared to those presented by the other organizations.

| Percentage GDP growth |      |      |       |
|-----------------------|------|------|-------|
| Entity                | 2023 | 2024 | 2025* |
| BCV                   | 4.6  | 8.54 | 8.23  |
| ECLAC <sup>21</sup>   | 3.2  | 8.5  | 6.5   |
| UNDP <sup>22</sup>    | 4.7  | 8.5  | 5.8   |
| IMF <sup>23</sup>     | 4    | 5.3  | 0.5   |

\*2025 figures updated as of the end of the third quarter.

<sup>20</sup> Banco Central de Venezuela (2025). *Producto Interno Bruto*. Estadísticas. <https://www.bcv.org.ve/estadisticas/producto-interno-bruto>.

Banco Central de Venezuela. (2025, 16 de octubre). *La economía venezolana avanza: El PIB aumentó 8,71% en el tercer trimestre de 2025*. Nota de Prensa. <https://www.bcv.org.ve/notas-de-prensa/la-economia-venezolana-avanza-el-pib-aumento-871-en-el-tercer-trimestre-de-2025>

Banco Central de Venezuela. (2025, 01 de mayo). *La economía venezolana continúa avanzando: El PIB creció 9,32% en el primer trimestre de 2025*. Nota de Prensa. <https://www.bcv.org.ve/notas-de-prensa/la-economia-venezolana-continua-avanzando-el-pib-crecio-932-en-el-primer-trimestre>.

Banco Central de Venezuela. (2025, 22 de Julio). *La economía venezolana creció 6,65% en el segundo trimestre de 2025*. Nota de Prensa. <https://www.bcv.org.ve/notas-de-prensa/la-economia-venezolana-crecio-665-en-el-segundo-trimestre-de-2025>

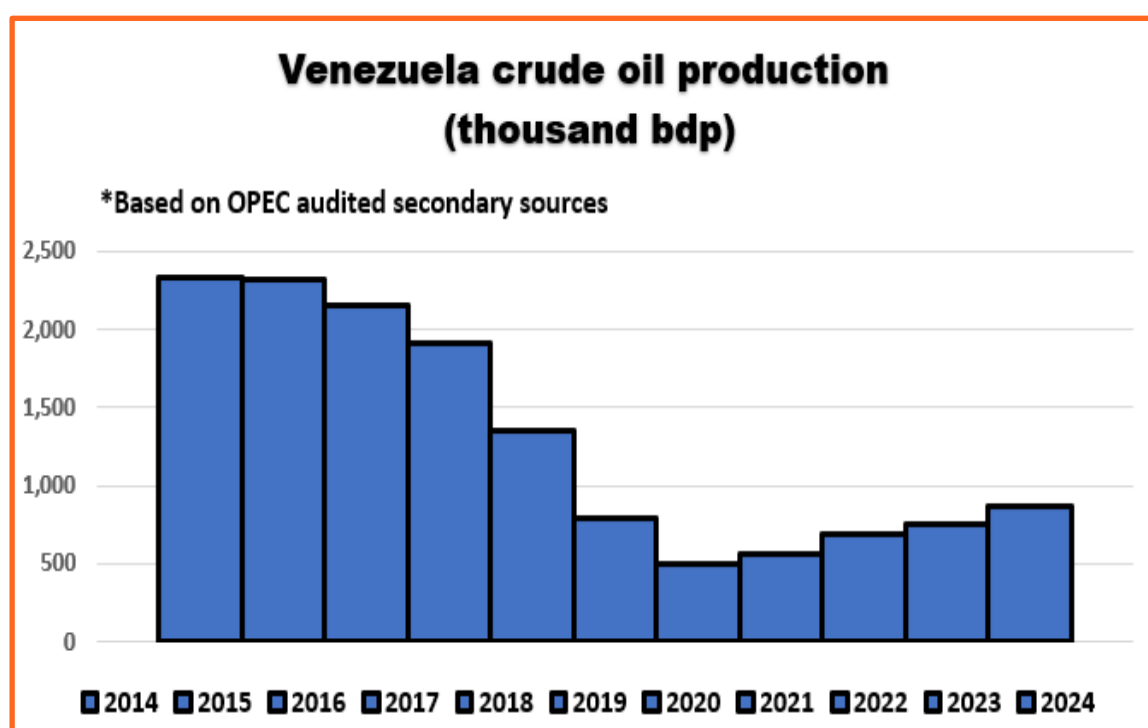
International Monetary Fund. (s.f.). *Real GDP growth, Annual Percent Change*. Datamapper. [https://www.imf.org/external/datamapper/NGDP\\_RPCH@WEO/VEN?zoom=VEN&highlight=VEN](https://www.imf.org/external/datamapper/NGDP_RPCH@WEO/VEN?zoom=VEN&highlight=VEN).

<sup>21</sup> p129. <https://www.cepal.org/es/publicaciones/84460-balance-preliminar-economias-america-latina-caribe-2025>; [https://www.cepal.org/sites/default/files/pr/files/tabla\\_prensa\\_pib\\_estudioeconomico2023-esp.pdf](https://www.cepal.org/sites/default/files/pr/files/tabla_prensa_pib_estudioeconomico2023-esp.pdf) <https://www.mppef.gob.ve/venezuela-cierra-2023-con-un-crecimiento-economico-sostenido/>

<sup>22</sup> <https://www.undp.org/es/venezuela/publicaciones/desempeno-macroeconomico-de-venezuela-tercer-trimestre-2025>

<sup>23</sup> <https://www.undp.org/es/venezuela/publicaciones/desempeno-macroeconomico-de-venezuela-tercer-trimestre-2025>,

The growth currently observed in Venezuela, as a primarily oil-based economy, is attributed to the reactivation of the industry following its most critical years, spanning from 2014 to 2020: In contrast, for 2024, according to the Macroeconomic Performance Bulletin of Venezuela<sup>24</sup>, oil activity generated at least 90% of foreign exchange, consolidating itself as the country's main source of income. Consequently, the rest of the non-oil productive sectors, which represent 89% of the economy and are considered a non-tradable sector, operate under an adverse efficiency and competitiveness environment. The correlation between these indicators and oil production is evident when considering the influence of oil production on macroeconomic indicators and, therefore, on all productive sectors of the country. Currently, oil production averaged 1,064 thousand barrels per day between January and December 2025, marking the country's best result since 2019 (UNDP, 2025)<sup>25</sup>.



**Source:** Own elaboration based on OPEC annual reports (2014-2024)<sup>26</sup>.

Likewise, the UNDP estimates that GDP growth in the third quarter of 2025 will reach 8.7%, driven primarily by the oil sector, which grew by +16.1%, and the non-oil sector, which recorded a +6.1% increase. According to BCV figures, although the recovery in non-oil activities such as construction (+16.40%), transport and storage (+9.35%), manufacturing (+8.98%), commerce, along

<sup>24</sup> [https://www.undp.org/sites/g/files/zskgke326/files/2025-04/boletin\\_pnud\\_4to\\_trimestre\\_digital.pdf](https://www.undp.org/sites/g/files/zskgke326/files/2025-04/boletin_pnud_4to_trimestre_digital.pdf)

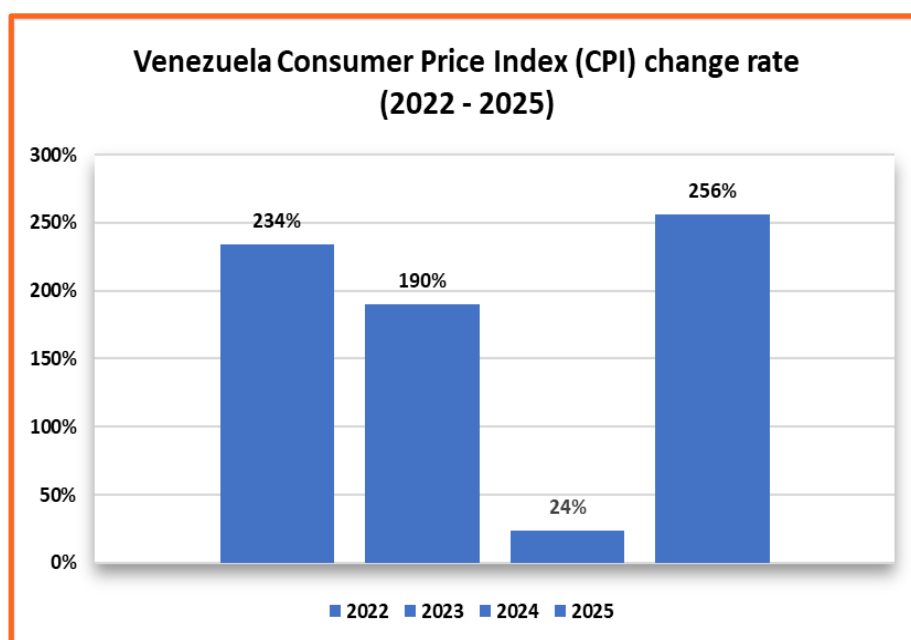
<sup>25</sup> [https://www.undp.org/sites/g/files/zskgke326/files/2025-12/reporte\\_macroecomico\\_nov25\\_digital.pdf](https://www.undp.org/sites/g/files/zskgke326/files/2025-12/reporte_macroecomico_nov25_digital.pdf)

<sup>26</sup> <https://www.opec.org/assets/assetdb/annual-report-2021.pdf> 2021 - 34,  
<https://www.opec.org/assets/assetdb/annual-report-2022.pdf> 2022 - 33,  
<https://www.opec.org/assets/assetdb/annual-report-2023.pdf> 2023 - 23,  
<https://www.opec.org/assets/assetdb/annual-report-2024.pdf> 2024 - 23,  
<https://www.opec.org/assets/assetdb/annual-report-2020.pdf> 2020 - 36,  
<https://www.opec.org/assets/assetdb/annual-report-2019.pdf> 2019 - 36,  
<https://www.opec.org/assets/assetdb/annual-report-2018.pdf> 2018 - 36-37.

with vehicle repair (+8.19%) and mining (+7.08%) have contributed positively to annual growth, significant challenges remain for their actual influence on the GDP.

### Inflation and Purchasing Power

In particular, it is observed that these sectors operate in a context of high inflation, accelerated exchange rate depreciation, and a continuous loss of household purchasing power<sup>27</sup>. These conditions limit the ability of the non-oil productive sector to contribute effectively given the progressively declining demand, fiscal or operational costly requirements, and limited access to credit. In that vein, inflation has remained around 250% for 2025. Reality that, given the expectations of economic reforms, the progressive increase in oil production, and the facilitation of its export under the new political conditions, projects to the economy a scenario of moderate inflation.

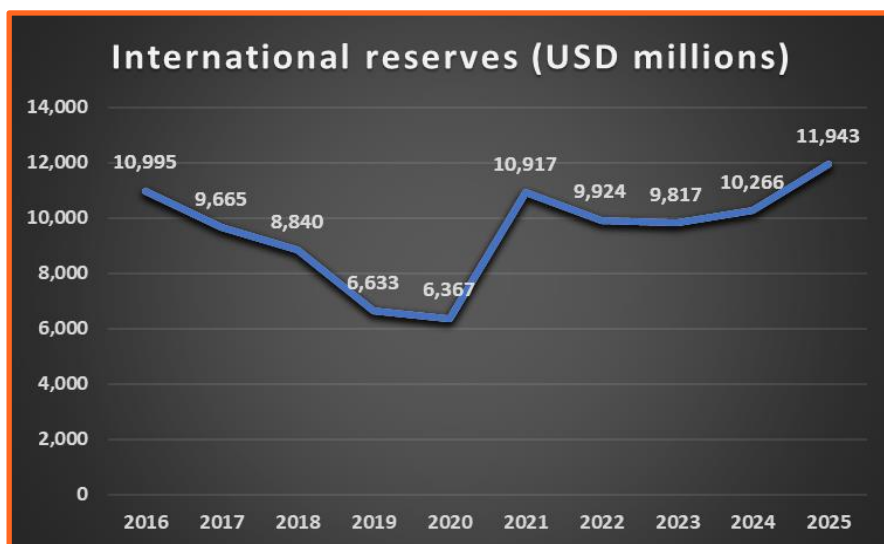


**Source:** Own elaboration, data from ECLAC and UNDP.

### International Reserves and External Debt

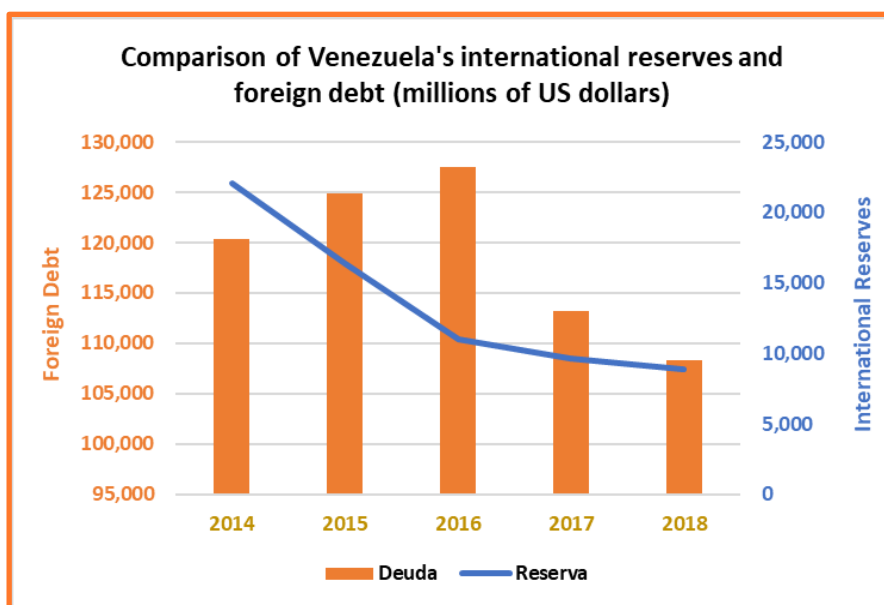
On the other hand, regarding international reserves, a gradual recovery is observed compared to the year 2020, Venezuela's lowest point in 45 years. The pressure created on the external balance has progressively diminished; however, the delayed pace of recovery denotes risks to macroeconomic sustainability in the face of rising external debt and a foreign exchange market constantly intervened by the State for exchange rate stabilization.

<sup>27</sup><https://www.bcv.org.ve/notas-de-prensa/la-economia-venezolana-avanza-el-pib-aumento-871-en-el-tercer-trimestre-de-2025> and [https://www.undp.org/sites/g/files/zskgke326/files/2025-12/reporte\\_macro economico\\_nov25\\_digital.pdf](https://www.undp.org/sites/g/files/zskgke326/files/2025-12/reporte_macro economico_nov25_digital.pdf)



**Source:** Own elaboration, data from Banco Central de Venezuela<sup>28</sup>.

Regard to the external debt—according to available data—, it has shown an upward trend, which contrasts negatively with the increase in the country's international reserves. It is estimated that, in recent years, the imbalance between debt and international reserves has damaged Venezuela's international investment position globally.



**Source:** Own elaboration, data from Banco Central de Venezuela<sup>29</sup>.

### International Reserves Trade Balance and Bilateral Relations

Venezuela's trade dynamics in recent years have resulted in a trade balance that depends on the volatility of hydrocarbon sector revenues and, consequently, on the international licenses permitted to Venezuela in this area. In 2024, the increase in oil production and the rise in external

<sup>28</sup> <https://www.bcv.org.ve/estadisticas/reservas-internacionales>

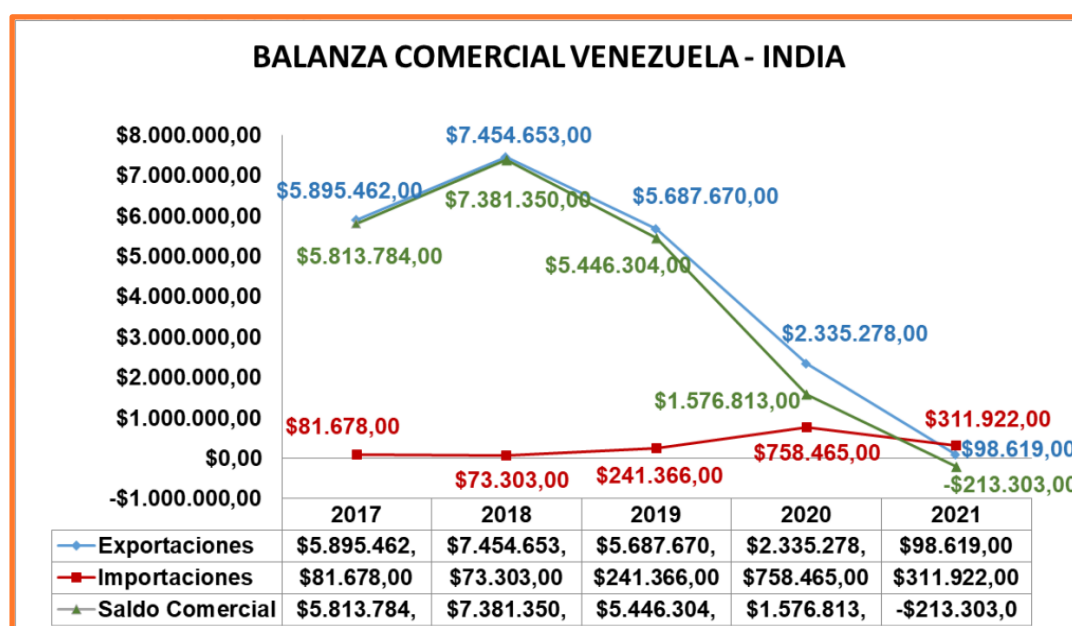
<sup>29</sup> <https://www.bcv.org.ve/estadisticas/reservas-internacionales> and <https://www.bcv.org.ve/estadisticas/deuda-externa>

sales, especially from Chevron and Repsol, elevated the value of both total exports and total imports<sup>30</sup>. In parallel, this increase, coupled with the inflow of remittances, has contributed to generating a positive balance in the current account.

Regarding income distribution, 53% originated in Asia, 22% in the United States, and the remainder was managed by independent operators<sup>31</sup>. On its part, Ecoanalítica points out that for 2024, oil-related GDP grew by 11.8%, while non-oil GDP increased by 3.8%.

Meanwhile, for 2025, non-oil exports have recently grown, positioning themselves between 66% and 87% compared to 2024, highlighting items such as rum, marine resources (shrimp, crabs), and other raw materials (such as coffee, fruits, wood chips, and cement)<sup>32</sup>. Overall, the sectors that saw a production increase that year were: oil, agriculture, food industry, pharmaceuticals, paper, auto parts, plastics and rubber, technology, and commerce<sup>33</sup>.

In perspective, according to the Observatory of Economic Complexity<sup>34</sup>, Venezuela exported approximately 3.69 billion dollars and imported 20.6 billion dollars in 2025 from India, resulting in a negative balance of 17 billion dollars for Venezuela. The main exports from Venezuela to India, by November 2025, were aluminum products, lead, and their derivatives; while the majority of imports were medicines, ceramics and related products, paper and its derivatives. The Banco de Comercio Exterior (BANCOEX) developed the following chart tracking the trade balance between both countries.



**Source:** Banco de Comercio Exterior (2023)<sup>35</sup>.

<sup>30</sup> <https://acading.org.ve/wp-content/uploads/2025/03/Balance-de-la-economia-venezolana-2024-y-perspectivas-2025.-Alejandro-Gutierrez.pdf>

<sup>31</sup> <https://www.elnacional.com/2026/01/balance-del-comercio-exterior-venezolano-2025-y-perspectivas-2026/>

<sup>32</sup> <https://www.elnacional.com/2026/01/balance-del-comercio-exterior-venezolano-2025-y-perspectivas-2026/>

<sup>33</sup> <https://www.elnacional.com/2026/01/balance-del-comercio-exterior-venezolano-2025-y-perspectivas-2026/>

<sup>34</sup> <https://oec.world/es/profile/bilateral-country/ven/partner/ind>

<sup>35</sup> <http://www.bancoex.gob.ve/wp-content/uploads/2024/02/Perfil-Pais-INDIA-2023.pdf>



# PART II

## EXCHANGE MARKET AND PAYMENT MANAGEMENT



## PART II

### EXCHANGE MARKET AND PAYMENT MANAGEMENT

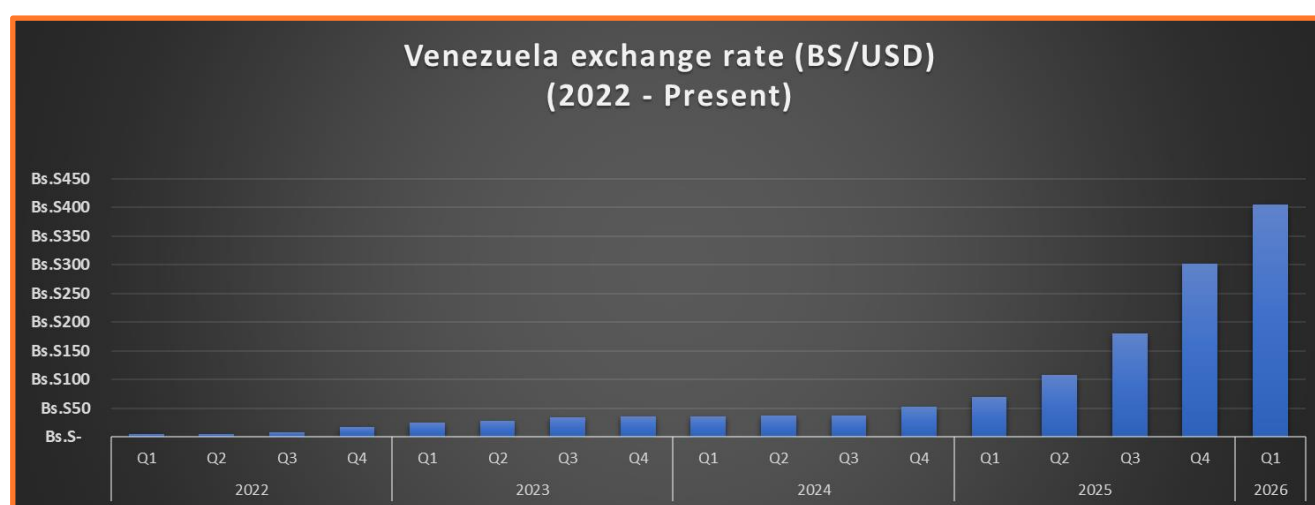
#### Characteristics of the exchange market in Venezuela

Historically, the Venezuelan exchange market has reflected the evolution of the country's balance of payments and a close connection with oil revenues<sup>36</sup>. In this sense, the State has attempted to maintain a fixed exchange rate which, combined with an expansionary monetary policy, has generated capital flight and parallel markets.

The main characteristic of the exchange market has been an overvaluation of the "digital bolivar"<sup>37</sup> as it has transitioned through multiple exchange control systems (RECADI, OTAC, CADIVI, SITME, SICAD, CENCOEX), a characteristic that, coupled with the fall in oil revenues and the monetization of the fiscal deficit by the BCV, generated the hyperinflationary cycle that reached its peak in 2018. In the last five-year period (2021-2026), following the repeal of the Illicit Exchange Law (2018) and the entry into force of Exchange Agreement No. 1<sup>38</sup>, the State allowed—in practice—the free convertibility of the currency and the circulation of the dollar; which generated a temporary price stabilization due to spontaneous transactional dollarization, breathing life into commerce and allowing the industry to set prices and trade in foreign currency.

#### Dynamics of the exchange rate gap and supply deficit

By 2023, the BCV adopted a progressive injection of cash dollars into the foreign exchange market to meet the demand for foreign currency and, as these stipulate the price of goods and services, contain inflation. In parallel, the Large Financial Transactions Tax (IGTF in spanish) was implemented for payments in foreign currency, in order to maintain the traceability of the bolivar and prevent total dollarization. However, starting in 2024<sup>39</sup>, the real market demand for foreign currency exceeded the BCV's monetary injections.



**Source:** Own elaboration, data from Banco Central de Venezuela.

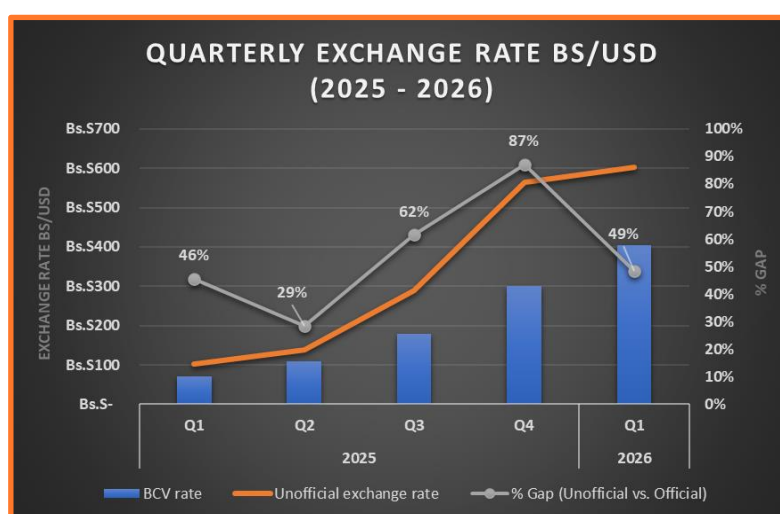
<sup>36</sup>[https://frrodriguez.web.wesleyan.edu/docs/Books/Venezuela\\_Anatomy\\_of\\_a\\_Collapse.pdf](https://frrodriguez.web.wesleyan.edu/docs/Books/Venezuela_Anatomy_of_a_Collapse.pdf)

<sup>37</sup>Which, for the purposes of this report, we will refer to hereafter as "bolivar".

<sup>38</sup>[https://petroleosdeamerica.com/VENEZUELA/ARCHIVOS/Gaceta\\_Oficial\\_07\\_09\\_18\\_num\\_Extra\\_6405.pdf](https://petroleosdeamerica.com/VENEZUELA/ARCHIVOS/Gaceta_Oficial_07_09_18_num_Extra_6405.pdf)

<sup>39</sup><https://observatoriodefinanzas.com/>, dolarization index.

Hence, after a gradual devaluation, when the unsatisfied demand for foreign currency exceeded its supply in 2025<sup>40</sup>, the demand shifted to the unofficial market, which widened the exchange rate gap. The exchange rate gap—which, in other words, is the reflection of the foreign exchange supply deficit at the official rate—accelerates the currency devaluation by the Central Bank, in order to close the arbitrage window and optimize the State's fiscal cash flow, which allows reducing the necessary injection of foreign currency—mostly coming from international reserves—into the exchange market. This dynamic makes it possible to regularize the supply and demand of the foreign exchange market, restoring the price signals necessary for the proper functioning of the economy.



**Source:** Own elaboration, data from Banco Central de Venezuela and [monitordolarve.com](https://monitordolarve.com)<sup>41</sup>.

Faced with this reality, the impact is negative on a domestic industry whose production is affected by imports (for the acquisition of raw materials and intermediate goods), as a result of the historical overvaluation of the bolivar and specialization in the hydrocarbon sector, which has increased production costs and makes goods less competitive. The exchange rate gap forces domestic producers who bill at the official rate to decapitalize. While their replacement costs—inputs, spare parts and raw materials, and risk coverage—are implicitly priced at the parallel dollar given the shortage of foreign currency in the official exchange market, their profits are accounted for in bolivars. This situation, according to the economic sector and inflation, worsens in accordance with the business production cycle. The initial real value of the bolivar compared to the real value of the bolivar collected at the end of the cycle is lower than what is necessary to cover replacement costs.

Therefore, the merchant is faced with limited options. If they adjust their prices in bolivars to cover the replacement cost, the nominal price at the official rate skyrockets, exposing them to national regulations or forcing them out of the market. In addition, economic agents, aware of the

<sup>40</sup><https://www.bcv.org.ve/estadisticas/balance-general-al-31012026>, <https://www.ucab.edu.ve/investigacion/centros-e-institutos-de-investigacion/iies/informes-de-coyuntura/>

<sup>41</sup>[https://monitordolarve.com/?fbclid=PAVERFWAQP9z9leHRuA2FlbQIxMABzcnRjBmFwcFopZA8xMjQwMjQ1NzQyODcoMTQAAad3feHLCsM8GwzY4frZP6gnd9kmbFkTDKJVH-J8pfGf7g4GBrBlOYE-f3CU7Q\\_aem\\_jigX3PRnbjBPUz9FLJUXnw](https://monitordolarve.com/?fbclid=PAVERFWAQP9z9leHRuA2FlbQIxMABzcnRjBmFwcFopZA8xMjQwMjQ1NzQyODcoMTQAAad3feHLCsM8GwzY4frZP6gnd9kmbFkTDKJVH-J8pfGf7g4GBrBlOYE-f3CU7Q_aem_jigX3PRnbjBPUz9FLJUXnw)



exchange disparity, are encouraged to make purchases in bolivars as a form of market arbitrage, limiting the access to foreign currency by businesses. Coupled with this, when taxes are paid in bolivars on accounting profits that do not reflect economic reality, accounting books generate nominal profits that force the entrepreneur to pay proportionally high taxes (with respect to their real profit), which contributes to the decapitalization of businesses.

Thus, its impact is reflected both in economic terms (decapitalization) and in operational or transactional costs. Companies have to manage a bi-monetary ecosystem, that is, bolivars in national accounts, cash dollars, and dollars in foreign accounts or digital wallets, each with a different value and liquidity in order to reduce the costs generated by the exchange rate differential; along with the administrative cost of reconciling this reality.

### Challenges for international capital and repatriation of dividends

However, for international capital, the exchange rate gap raises the country's risk premium regarding the repatriation of dividends. Finding a limited supply of foreign currency, or competing against a large demand for it in the domestic market, earning profits in bolivars limits its convertibility into foreign currency for repatriation due to market illiquidity. Also, companies are exposed to legal compliance risks and the operational difficulties of valuing their assets. Using the official rate would artificially overvalue assets, while using parallel valuation contravenes the accounting regulations of the country of origin<sup>42</sup>, thus complicating the financial statements of transnational companies.

In accordance with the above, the complicated situation of the exchange rate market, characterized by the exchange difference and the lack of capital (due to operational decapitalization), forces economic actors to diversify traditional banking options in search of new forms of settlement. The difficulty of accessing foreign currency in the official market, coupled with the need to safeguard the value of productive operations, drives companies towards more flexible payment management. In this context, the financial structure of businesses ceases to be just an accounting aspect and becomes a strategy, using tools that allow them to overcome both the lack of local liquidity and the isolation from the international banking system.

Understanding the scenario of uncertainty in recent years, carrying out international transactions has become an exercise in financial complexity. This is mainly due to Venezuela's disconnection from the "global network" regarding the payment system with respect to the economic order, backed by the Western Hemisphere and adopted by the rest of the world, where Venezuela is isolated from the SWIFT system, embodying in its image the phenomenon of over-compliance for foreign investors. In this regard, there is a real impact of the restrictions on the BCV and public banking, which turns private banking into the only (and narrow) bridge to the SWIFT system. Nevertheless, despite the existence of this link, international banks fear indirect sanctions from contact with Venezuelan banks, resulting in even transactions to non-sanctioned companies

<sup>42</sup> [https://petroleosdeamerica.com/VENEZUELA/ARCHIVOS/Gaceta\\_Oficial\\_07\\_09\\_18\\_num\\_Extra\\_6405.pdf](https://petroleosdeamerica.com/VENEZUELA/ARCHIVOS/Gaceta_Oficial_07_09_18_num_Extra_6405.pdf)

being rejected, subject to meticulous review, or to internal consideration due to the degree of risk exposure.

It is in this context where there are increases in banking transaction costs, and waiting times affect not only the exchange itself, but also subject organizations to presenting rigorous reports and documents justifying the origin and destination of each movement to ensure transaction transparency. This forces banking entities to work in bureaucratic structures parallel to the global banking network, while having to adhere to its rules and considerations.

However, the private sector has developed mechanisms to ensure operability despite the barriers. In this regard, one of the considered solutions refers to payment triangulation where, through "payment service providers (PSPs)" and accounts in jurisdictions such as Panama, the U.S. or Europe, cash flow has been mobilized outside Venezuelan jurisdiction<sup>43</sup>. Domestically, the country has moved towards digitalization, achieving 98% digital transactions through tools such as: mobile payment (P2P/C2P), bank transfers (VES), biopago, and foreign currency custody accounts that act as an operational value refuge. Some of these allow companies to manage dollars within the national system, although their mobility abroad is restricted, enabling a certain normalization in economic flow and value safeguarding.



**Source:** RaylÍ Luján in Bloomberg Línea (2023), based on information from Ecoanalítica<sup>44</sup>.

In Venezuela, the integration of crypto assets and stablecoins such as USDT or USDC has been demonstrated as a tool for economic survival in the face of distortions in the local financial system. This practice allows small and medium-sized companies to expedite their international B2B payments, achieving an immediacy given the constant need for market revaluation. It is a model

<sup>43</sup> <https://publications.iadb.org/publications/spanish/document/Fintech-en-America-Latina-y-el-Caribe-un-ecosistema-consolidado-con-potencial-para-aportar-a-la-inclusion-financiera-regional.pdf>

<sup>44</sup> <https://www.bloomberglinea.com/2023/06/09/en-venezuela-circulan-us4825-millones-en-efectivo-mientras-aumentan-transacciones-en-divisas/>



that strictly responds to an operational need within an environment with limited access to global banking, a situation that we hope will become less of an issue as we move forward with our phased implementation following the current circumstances.

This ecosystem operates under the supervision of SUNACRIP, which defines these assets as intangible personal property, but their use entails significant tax challenges that limit their appeal as a simple savings alternative. Operations are subject to a robust tax burden that includes additional VAT rates, ranging between 5% and 25%, in addition to the application of the Large Financial Transactions Tax (IGTF), which considerably raises the costs of each movement. Consequently, the Venezuelan model does not present itself as a deregulated route, but as a complex accounting management structure. Companies are forced to balance their cash flows between bolivars, foreign currency, and crypto assets, facing an environment where transactional agility is counterbalanced by strict and costly state tax control. This reality reflects that adoption in the country is a technical response to systemic problems and not a frictionless preference.

### **Future expectations: towards a return to the financial system**

In that perspective, the resolution of these obstacles does not depend solely on technical tools, but on the recovery of trust in institutions, as well as the flexibilization of international sanctions, whose status is on hold following the ongoing economic rearrangement. At present, although a possible reintegration of Banco Central de Venezuela (BCV) into the global system is being discussed, the changing reality and the existing dependence on foreign exchange flow must be taken into account. Meanwhile, as the formal supply of foreign currency stabilizes and cost dispersion is reduced, companies will continue to operate under a traditional hybrid system, influenced by international digital wallets and digital asset exchange, configuring a payment management system with logistical challenges, adaptable solutions, and a uniqueness in replicability worldwide.

As events that contribute to macroeconomic stability occur, such as the decrease in the exchange rate gap—which has decreased by up to 60% in two months—, oil revenues increase due to the world's geopolitical reality, and the gradual insertion of Venezuela into the international financial system without restrictions takes place; the productive apparatus will be boosted. Furthermore, since the population's adoption of different payment methods has taken place, companies will face a favorable scenario to diversify their collection channels and prioritize those methods that optimize their profitability.



# PART III

## GENERAL GEOLOGICAL CHARACTERIZATION

### PART III

## GENERAL GEOLOGICAL CHARACTERIZATION

Venezuela possesses one of the richest and most diverse geological endowments in South America. It has deposits of coltan, nickel, cassiterite, rhodium, titanium, iron, bauxite, and gold, and the presence of rare earth elements is estimated in the "Cerro Impacto" area (border between Bolívar and Amazonas)<sup>45</sup>, as well as other strategic minerals for the energy transition and modern technology (semiconductor manufacturing, electric vehicles, and military equipment). The country's geological resources are concentrated in various areas, such as the nickel reserves in Loma de Hierro (between the states of Miranda and Aragua), the Guasare coal basin in Zulia, and the phosphate deposits in the state of Táchira.

Nevertheless, the geological zoning of Venezuela's minerals is framed, in particular, within the Arco Minero del Orinoco (AMO), declared as a "National Strategic Development Zone" in 2016 and covers between 111,843.70km<sup>2</sup> —which is approximately 12.4% of the national territory— in Bolívar State. The declaration underscores the area's mining importance to the country, and to facilitate its development, the Arco Minero del Orinoco (AMO) is divided into four large blocks or exploitation areas with distinct mineral potential. Specifically, Area 1 (called Juana la Avanzadora) contains deposits of coltan, bauxite, potential rare earth elements, diamonds, and gold; Area 2 (Manuelita Sáenz) has gold and diamonds; Area 3 (Negra Hipólita) contains iron, gold, bauxite, and diamonds; and Area 4 (Josefa Camejo) holds significant gold deposits<sup>46</sup>.



**Source:** Ministerio del Poder Popular para de Desarrollo Minero Ecológico e Industrias Básicas<sup>47</sup>.

For the purposes of our analysis, we will focus on critical minerals, defined in the current geopolitical architecture as those resources indispensable for the global energy transition, technological sovereignty, and defense, but whose supply chains face a high degree of trade and supply vulnerability. In this regard, we will center our assessment on nickel, lithium, and coltan, and will also include relevant considerations regarding gold and industrial metals.

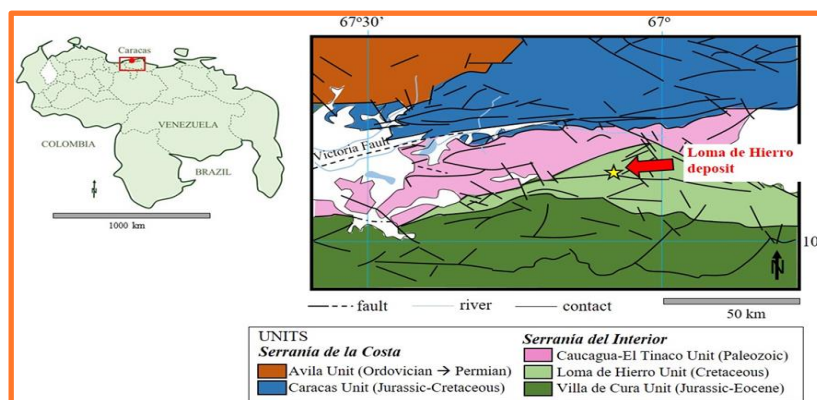
<sup>45</sup> <https://petroleumag.com/tierras-raras-y-cerro-impacto/>

<sup>46</sup> [https://desarrollominero.gob.ve/?page\\_id=59652](https://desarrollominero.gob.ve/?page_id=59652)

<sup>47</sup> [https://desarrollominero.gob.ve/?page\\_id=59652](https://desarrollominero.gob.ve/?page_id=59652)

## Nickel (Ni) and Manganese

Nickel is formally recognized as a strategic mineral for Venezuela —through Presidential Decree No. 4,598 (2021)<sup>48</sup>—, being the asset with the greatest technical viability and lowest exploration risk for the immediate investment of foreign capital. The documented geological reserves of the resource exceed 28.9 million tons<sup>49</sup> in lateritic deposits (surface mineral concentrations); where the most outstanding deposits are those located in "Loma de Hierro" (border area between the states of Aragua and Miranda).



**Source:** Domènech et al. (2021)<sup>50</sup>.

Although detailed studies on the mineralogical and geochemical composition of the lateritic profile of the deposits are lacking, the Loma de Hierro deposits have been in operation for over 50 years. This is partly due to the surface nature of these deposits, which allows for open-pit mining methodologies, minimizing initial capital expenditure. Historical processing of these mines, averaging 17,500 tons per year of ferronickel alloy, has traditionally been directed toward the metallurgical and steel industries, specifically for the manufacture of stainless steels and other high-strength alloys<sup>51</sup>.



**Source:** Barbé (2009) as referenced in Mujica (2022)<sup>52</sup>.

<sup>48</sup> <https://mineriaenlinea.com/articulos/recursos-minerales-mas-abundantes-venezuela/>

<sup>49</sup> <https://www.desarrollominero.gob.ve/wp-content/uploads/2024/04/Informe-gestion-sector-minero-2018.pdf>

<sup>50</sup> [https://www.scielo.org.mx/scielo.php?script=sci\\_arttext&pid=S1405-33222020000300016](https://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S1405-33222020000300016)

<sup>51</sup> [https://transparenciave.org/wp-content/uploads/2018/11/EPE-II-Sector-Mineria\\_AF.pdf](https://transparenciave.org/wp-content/uploads/2018/11/EPE-II-Sector-Mineria_AF.pdf)

<sup>52</sup> [https://bibliotecadigital.exactas.uba.ar/download/especializacion/especializacion\\_nGM0013\\_MujicaRamirez.pdf](https://bibliotecadigital.exactas.uba.ar/download/especializacion/especializacion_nGM0013_MujicaRamirez.pdf)



Now, while the geological potential of Venezuelan territory for nickel supply is undeniable, a prudent assessment of the risk-return profile suggests the need to recalibrate short-term investment expectations due to current futures market behavior. Nickel futures contracts are trading at approximately \$16,000 to \$18,000 per ton, and the downward trend is expected to continue, at least until 2028, due to the supply generated by Indonesia and the Philippines<sup>53</sup>. However, given the consolidation of this mineral as critical for the energy transition, specifically for high energy density batteries (lithium-ion batteries), demand is projected to increase by 800% for the current decade<sup>54</sup>. Therefore, contracts that guarantee supply lines for this mineral can be crucial for establishing high value-added, state-of-the-art production lines.

Thus, the establishment of High-Pressure Acid Leaching (HPAL) technologies will be crucial in transforming Venezuelan lateritic ores —historically exploited as Class II ferronickel for the stainless-steel industry— into intermediate products such as Mixed Hydroxide Precipitate (MHP), an intermediate product that can later be refined to obtain high-purity nickel sulfate used in lithium-ion batteries<sup>55</sup>. This leap could constitute a coupling mechanism for Venezuelan mining production in the lithium-ion battery manufacturing process. However, the implementation of HPAL plants requires intensive capital investment and highly complex logistical management, which opens a window of opportunity for multi-alignment alliances with countries capable of contributing expertise in the production of strategic minerals, financing, and guaranteeing long-term absorption markets, such as India.

### Coltan and Rare-Earth Elements

Coltan is a key input for the manufacture of advanced electronic capacitors, superalloys, and critical components in telecommunications and defense; therefore, its importance makes it a critical mineral. Venezuelan deposits are located in the south of the country, specifically in the states of Bolívar and Amazonas, within the Parguaza sector of the Arco Minero del Orinoco (AMO)<sup>56</sup>. The available information identifies the deposits as predominantly surface alluvial deposits located in the Escudo Guayanés, which facilitates manual collection but has encouraged disorderly smuggling to neighboring countries<sup>57</sup>.

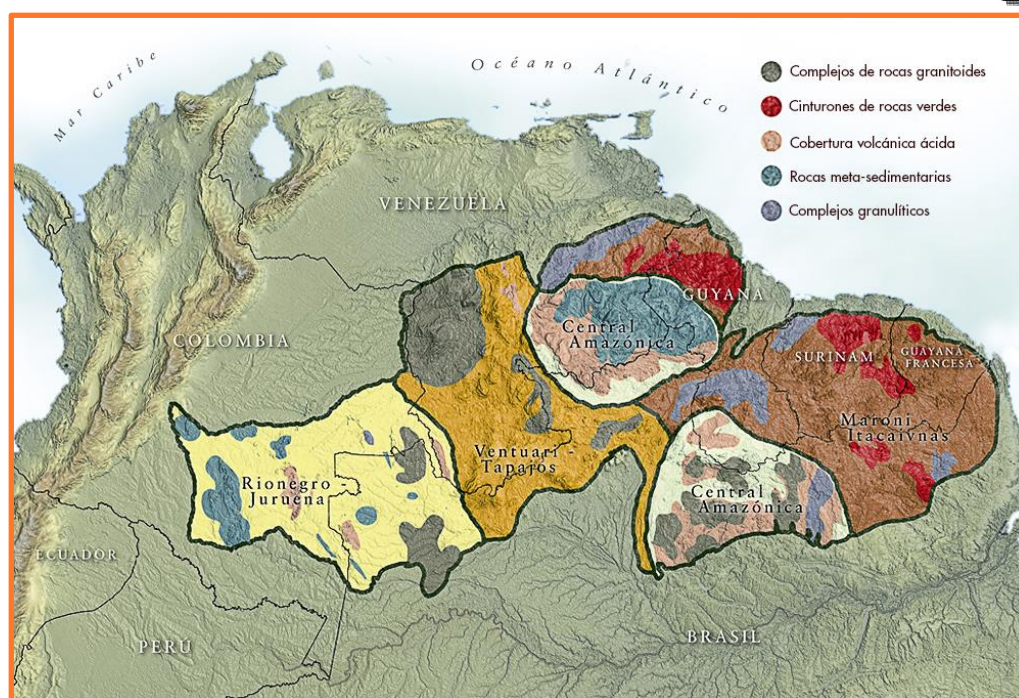
<sup>53</sup><https://www.iea.org/topics/critical-minerals> and <https://es.tradingeconomics.com/commodity/nickel/news/531730#:~:text=Los%20futuros%20del%20n%C3%ADquel%20cayeron%20por%20debajo,aversi%C3%B3n%20al%20riesgo%20en%20los%20mercados%20manufactureros>.

<sup>54</sup>[https://www.desarrollominero.gob.ve/wp-content/uploads/2024/04/Plan-Sectorial-Minero2019\\_2025\\_Final040619\\_compressed.pdf](https://www.desarrollominero.gob.ve/wp-content/uploads/2024/04/Plan-Sectorial-Minero2019_2025_Final040619_compressed.pdf)

<sup>55</sup> <https://www.osti.gov/servlets/purl/2564892>

<sup>56</sup>[https://www.desarrollominero.gob.ve/wp-content/uploads/2024/04/Plan-Sectorial-Minero2019\\_2025\\_Final040619\\_compressed.pdf](https://www.desarrollominero.gob.ve/wp-content/uploads/2024/04/Plan-Sectorial-Minero2019_2025_Final040619_compressed.pdf)

<sup>57</sup> <https://www.ocmal.org/tierras-raras-o-coltan-la-otra-riqueza-mineral-de-venezuela/>



**Source:** Banco de Occidente (2016)<sup>58</sup>.

Furthermore, the critical deficiency in resource estimates quantified under recognized international standards (such as NI 43-101) and the lack of institutional transparency regarding the resource, makes the projection of 35,000 tons produced for 2025<sup>59</sup> in unverifiable, though official, estimates. These are nevertheless managed through the presence of the joint ventures “Metales del Sur”, “Ecosocialista Parguaza, S.A.” and “Ecosocialista Oro Azul, S.A.”<sup>60</sup>.

Along the same lines, Venezuela's potential to consolidate itself as a supplier of rare earth elements (such as neodymium, lanthanum, and cerium) and minerals that often coexist in its deposits (such as thorium) is recognized both by the characteristics of the territory's geological formations and by official state estimates<sup>61</sup>. However, the viability of exploiting these resources is hampered by a convergence of operational frictions: the absence of officially quantified or certified reserves under international standards, the difficulty of logistical access to the deposit areas, and the documented presence of irregular armed groups that impose illicit economic dynamics in the extraction territories<sup>62</sup>.

In response to the critical importance of rare earth elements for microelectronics and the global energy transition, the Venezuelan institutional architecture has structured formal incentives through the 2019-2025 Mining Sector Plan, where the State actively promotes alliances with research centers and foreign investors to finance prospecting campaigns and international

<sup>58</sup> <https://www.imeditores.com/index.php/home/ecologia/355-content-inset-column-2-sp-508455115>

<sup>59</sup> [https://www.desarrollominero.gob.ve/wp-content/uploads/2024/04/Plan-Sectorial-Minero2019\\_2025\\_Final040619\\_compressed.pdf](https://www.desarrollominero.gob.ve/wp-content/uploads/2024/04/Plan-Sectorial-Minero2019_2025_Final040619_compressed.pdf)

<sup>60</sup> <https://www.desarrollominero.gob.ve/wp-content/uploads/2024/04/Informe-gestion-sector-minero-2018.pdf>

<sup>61</sup> [https://www.desarrollominero.gob.ve/wp-content/uploads/2024/04/Plan-Sectorial-Minero2019\\_2025\\_Final040619\\_compressed.pdf](https://www.desarrollominero.gob.ve/wp-content/uploads/2024/04/Plan-Sectorial-Minero2019_2025_Final040619_compressed.pdf) and <https://petroleumag.com/tierras-raras-y-cerro-impacto/>

<sup>62</sup> <https://www.bancaynegocios.com/no-solo-es-petroleo-los-minerales-criticos-de-venezuela-tambien-son-de-interes-para-ee-uu/> and [https://www.desarrollominero.gob.ve/wp-content/uploads/2024/04/Plan-Sectorial-Minero2019\\_2025\\_Final040619\\_compressed.pdf](https://www.desarrollominero.gob.ve/wp-content/uploads/2024/04/Plan-Sectorial-Minero2019_2025_Final040619_compressed.pdf)



certification of reserves<sup>63</sup>. The effectiveness of this measure, along with complementary measures for logistical connectivity and the establishment of militarized corporate security perimeters, will contribute to the viability of exploiting these resources in the medium and long term. In this prospective scenario, those foreign investors who assume the initial risk of financing the quantification phase and consolidate operational deployment in the territory can consolidate a first-mover advantage. This could ensure a priority position for the future commercialization of the minerals found there.

### Lithium (Li)

The natural presence of lithium in the country has been estimated since 1987, although efforts to officially determine its extent have not been sufficient to establish official figures for proven reserves. Lithium occurrences in Venezuela are predominantly associated with pegmatites in hard rock formations, linked to the states of Miranda, Nueva Esparta, and Bolívar —where it is found in its natural state, thus requiring extraction processes capable of obtaining lithium hydroxide—; with national estimates suggesting reserves of more than 28 million tons of the mineral<sup>64</sup>. Similarly, as a precedent, the ability to transform potential resources into economically viable proven reserves will require the release of geoscientific data that determines the progress of the "exploratory" stage in which the country currently finds itself. Furthermore, if the resource is found, systematic drilling campaigns will be required to compete with the natural producers in the region —the "lithium triangle"— Argentina, Bolivia, and Chile.

### Gold (Au)

In the global financial architecture, gold has solidified its role as the ultimate safe-haven asset, gaining renewed geopolitical relevance in the face of the volatility and manipulation of the US dollar. Because of this, beyond its traditional function, gold is transitioning into a tool for emerging powers seeking to mitigate their vulnerability and reduce their dependence on the Western fiat system. In this scenario of high demand for the mineral, Venezuela acquires paramount importance, claiming to possess 2,236 tons of certified gold in the Arco Minero del Orinoco<sup>65</sup>, a volume that, if it consolidates its full certification under market standards, would introduce the country into the world's top 10 in deposits of the resource; even with deposits awaiting international certification (such as "Las Cristinas" and "Brisas") in Bolívar state.

In fact, the gold mining sector is so important in the country that it has undergone legislative changes since 2011. In particular, through Decree No. 8,413 (2011), private activity was limited to mixed companies with a 55% state participation<sup>66</sup>; Decree No. 2,165 (2015) where the marketing of gold is reserved exclusively to the BCV<sup>67</sup>, or Decree No. 2,412 (2016) which prohibited the use of

<sup>63</sup>[https://www.desarrollominero.gob.ve/wp-content/uploads/2024/04/Plan-Sectorial-Minero2019\\_2025\\_Final040619\\_compressed.pdf](https://www.desarrollominero.gob.ve/wp-content/uploads/2024/04/Plan-Sectorial-Minero2019_2025_Final040619_compressed.pdf)

<sup>64</sup><https://www.estrelladigital.es/articulo/mundo/venezuela-europa-materias-primas-estrategicas/20260105110707439002.html#:~:text=Litio:%20Venezuela%20tiene%20importantes%20yacimientos,para%20obtener%20hidr%C3%B3xido%20de%20litio.>

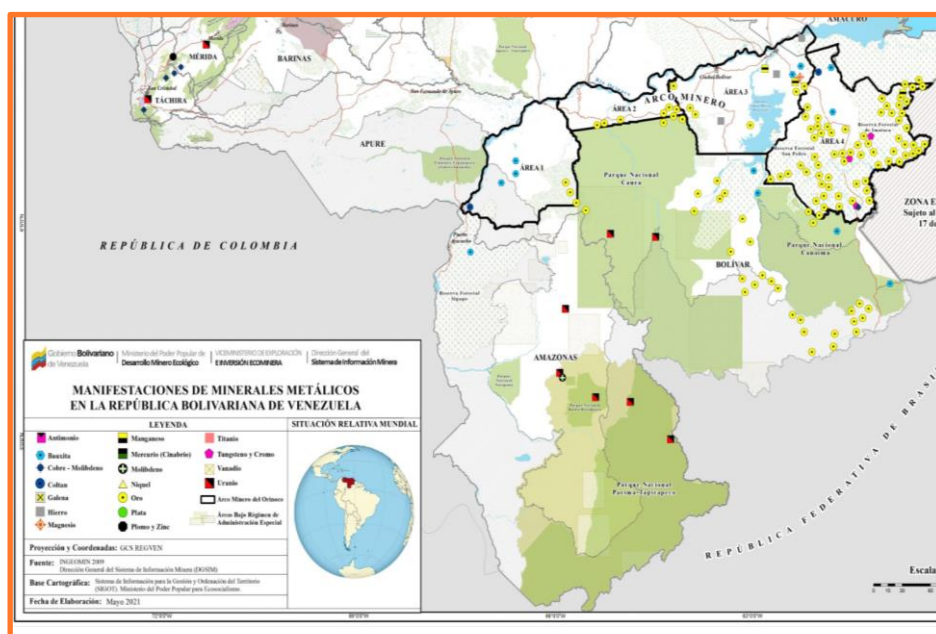
<sup>65</sup> <https://diarioversionfinal.com/politica-dinero/venezuela-tendra-la-mayor-reserva-de-oro-del-mundo-en-2025/>

<sup>66</sup> <https://eldiario.com/2026/03/12/teexplicamos-como-es-la-realidad-mineria-venezuela-nueva-ley/>

<sup>67</sup> <https://eldiario.com/2026/03/12/teexplicamos-como-es-la-realidad-mineria-venezuela-nueva-ley/>

mercury in mining activities, which has led to the progressive installation of hydrometallurgical plants using cyanide leaching, a technology that allows for an 85% recovery and efficiency in mineral extraction<sup>68</sup>. In parallel, with the creation of the Arco Minero del Orinoco (2016) and, subsequently, with the anti-blockade law approved in 2020 and with the sustained growth of the gold sector; Venezuela has managed to consolidate national and international reserves and obtain a palliative measure to its adverse economic circumstances, especially prior to the recovery of oil production<sup>69</sup>.

In this context, following the political events of January of this year, OFAC (the United States Office of Foreign Assets Control, the entity that administers and applies economic and trade sanctions) issued General License 51 (GL 51), authorizing US companies to transact, purchase, and transport gold of Venezuelan origin for its introduction into the US market<sup>70</sup>. This sets a precedent for sectoral flexibility, significantly reducing the threat of secondary sanctions against corporate actors from third countries interested in minerals of Venezuelan origin.



**Source:** Ministerio del Poder Popular para Desarrollo Minero Ecológico (2018)<sup>71</sup>.

By 2025, Venezuela had reached its highest gold production in recent years, totaling 79.49 tons, despite the operational challenges of not obtaining OFAC licenses<sup>72</sup>. However, as with other minerals, gold production presents operational challenges. This is especially true regarding extortion and smuggling, which is estimated to account for 20% of production<sup>73</sup>; as well as the need for investment in productive infrastructure and geochemical sampling that allows the verification of data on the state and projections of the deposits.

<sup>68</sup><https://www.desarrollominero.gob.ve/wp-content/uploads/2024/04/Informe-gestion-sector-minero-2018.pdf>

<sup>69</sup> <https://radiomiraflores.net.ve/desarrollo-minero-ecologico-celebra-9-anos-de-avances-integrales/> and

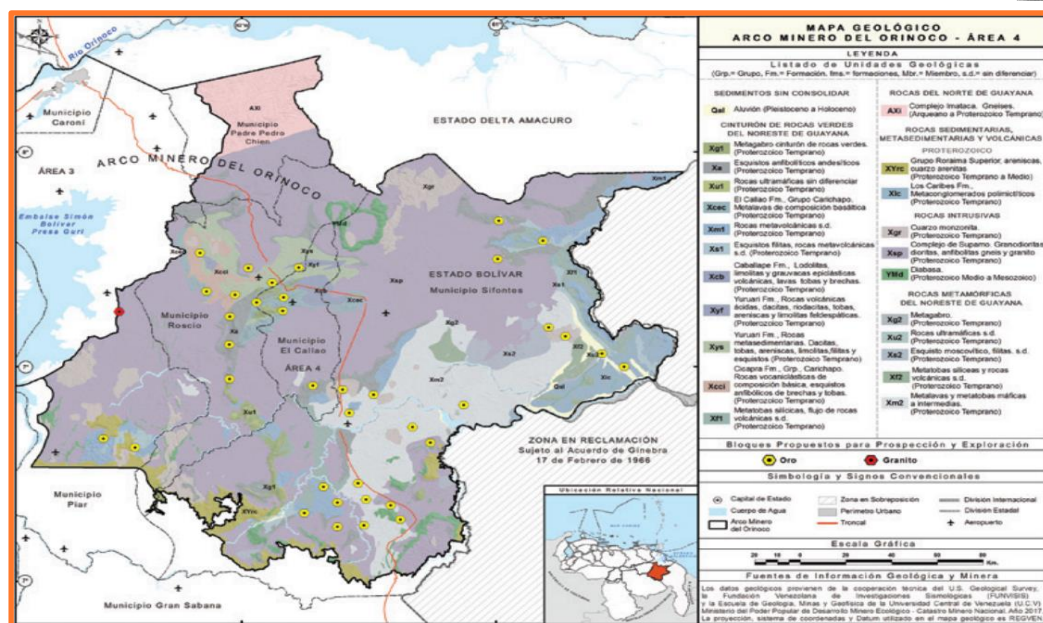
<https://eldiario.com/2026/03/12/teexplicamos-como-es-la-realidad-mineria-venezuela-nueva-ley/>

<sup>70</sup> <https://eldiario.com/2026/03/12/teexplicamos-como-es-la-realidad-mineria-venezuela-nueva-ley/>

<sup>71</sup> [https://desarrollominero.gob.ve/?page\\_id=58438](https://desarrollominero.gob.ve/?page_id=58438)

<sup>72</sup> [https://www.desarrollominero.gob.ve/wp-content/uploads/2024/04/Plan-Sectorial-Minero2019\\_2025\\_Final040619\\_compressed.pdf](https://www.desarrollominero.gob.ve/wp-content/uploads/2024/04/Plan-Sectorial-Minero2019_2025_Final040619_compressed.pdf)

<sup>73</sup> <https://transparenciave.org/economias-ilicitas/wp-content/uploads/2025/04/Explotacion-de-oro-en-Venezuela-2024.-Transparencia-Venezuela-en-el-exilio.pdf>



**Source:** Ministerio del Poder Popular para Desarrollo Minero Ecológico (2018)<sup>74</sup>.

### Industrial Metals (Iron and Bauxite)

Venezuela has the eighth largest iron ore reserves in the world<sup>75</sup>, estimated 2018 were estimated in more than 14,678 million metric tons<sup>76</sup>, of which 3.631 billion are categorized as proven reserves, 2.326 billion are considered probable, and 8.711 billion are projected as possible<sup>77</sup>. As for their location, the reserves are mainly concentrated in the Escudo Guayanés.



**Source:** Ministerio del Poder Popular para Desarrollo Minero Ecológico (2018)<sup>78</sup>.

<sup>74</sup> [https://desarrollominero.gob.ve/?page\\_id=58438](https://desarrollominero.gob.ve/?page_id=58438)

<sup>75</sup> <https://www.bbc.com/mundo/articulos/cp822mq2oego>

<sup>76</sup> <https://www.bancaynegocios.com/no-solo-es-petroleo-los-minerales-criticos-de-venezuela-tambien-son-de-interes-para-ee-uu/>

<sup>77</sup> [https://www.desarrollominero.gob.ve/wpcontent/uploads/2024/04/Catalogo\\_Minerales\\_2018\\_espanol\\_WEB.pdf](https://www.desarrollominero.gob.ve/wpcontent/uploads/2024/04/Catalogo_Minerales_2018_espanol_WEB.pdf)

<sup>78</sup> [https://desarrollominero.gob.ve/?page\\_id=58438](https://desarrollominero.gob.ve/?page_id=58438)

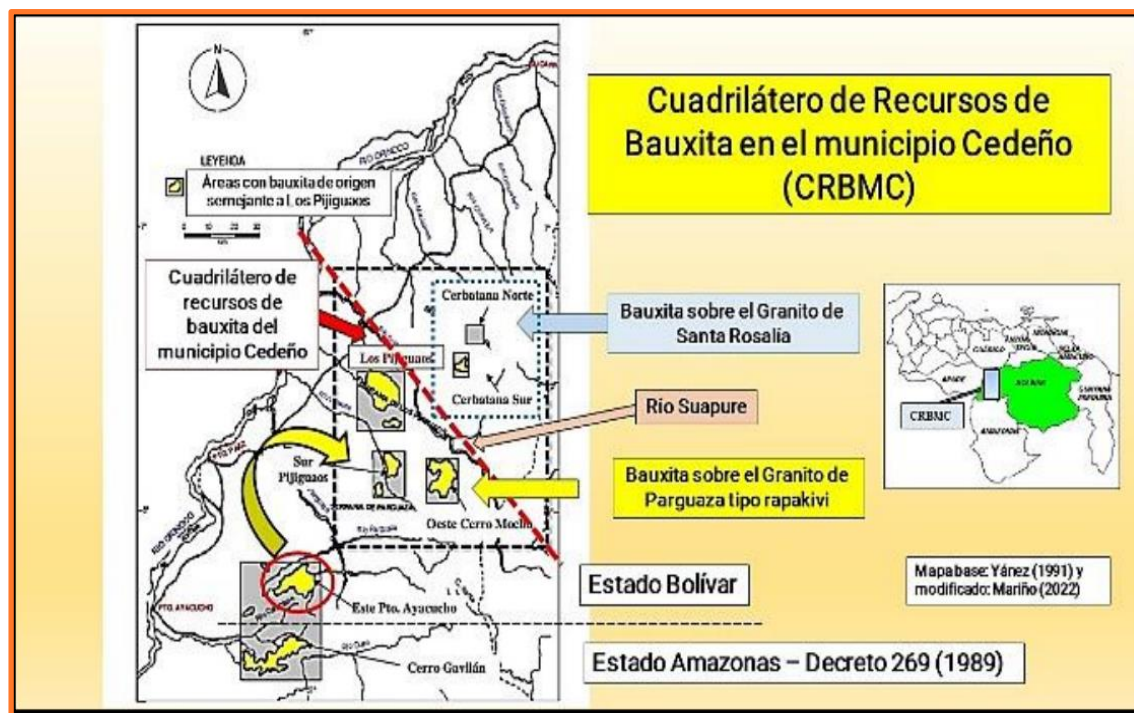
Now, regarding bauxite, it is estimated that Venezuela possesses more than 321 million tons, of which 88 million are inferred, 134 million indicated, and 99.35 million measured<sup>82</sup>. Bauxite is considered a relevant mineral for this study because its value chain evolves from extraction to the use of the mineral for aluminum production, which is used in renewable energy technologies. Specifically, the deposits are located in the Cedeño municipality of Bolívar state, in the northwestern part of the Escudo Guayanés, and the most important deposit is the "Los Pijiguaos" open-pit mine due to the predominantly gibbsite nature of the resource (which ensures high quality for its chemical refining process).



**Source:** Mariño (2025)<sup>83</sup>.

<https://www.cescaucgac.net/guestbook/publication/388224632-DEPOSITOS-DE-BAUXITA-EN-EL-ESCUDO-DE-GUAYANA-VENEZOLANO-ACTUALIZACION-DE-LOS-RECURSOS-INFERIDOS-Y-OTRAS-CONSIDERACIONES-GEOMINERAS-BAUXITE-DEPOSITS-IN-THE-VENEZUELAN-GUIANA-SHIELD-UPDATED-OF-INFERRED-/links/678fe9807d54ab477e54a239/DEPOSITOS-DE-BAUXITA-EN-EL-ESCUDO-DE-GUAYANA-VENEZOLANO-ACTUALIZACION-DE-LOS-RECURSOS-INFERIDOS-Y-OTRAS-CONSIDERACIONES-GEOMINERAS-BAUXITE-DEPOSITS-IN-THE-VENEZUELAN-GUIANA-SHIELD-UPDATED-OF-INFERRED.pdf>

Also, expanded geological assessments—which include areas adjacent to the main deposit—and international audits estimate that the “quadrilateral bauxite” of the Cedeño municipality holds inferred resources exceeding 1.8 billion tons, with maximum projections of up to 5 billion tons<sup>84</sup>.



**Source:** Mariño (2025)<sup>85</sup>.

This mining potential is being exercised, preliminarily, by the Venezuelan Guayana Corporation-Bauxilium and its subsidiaries (Bauxilium, Alcasa, and Venalum). According to official reports issued by the president of the state-owned company, CVG-Bauxilium closed 2022 with an extraction of 770,000 tons of bauxite<sup>86</sup>. However, this figure represents a fraction of the industrial complex's historical installed capacity and the potential of the deposits. For foreign investors, the appeal lies in the opportunity to revitalize a value chain with a long-standing production base and to benefit as the primary recipient of a key mineral for renewable energy alloys.

## CHARACTERIZATION MATRIX — VENEZUELA'S STRATEGIC MINERALS

Market Intelligence and Geopolitics Analysis · Embassy of India in Caracas · 2026

| Mineral | Location Zone | Potential / Estimated Reserves | Strategic Advantages for India | Disadvantages/ Operational Risks | Technological / Infrastructure Requirements | Regulatory Conditions / Geopolitical Status |
|---------|---------------|--------------------------------|--------------------------------|----------------------------------|---------------------------------------------|---------------------------------------------|
|---------|---------------|--------------------------------|--------------------------------|----------------------------------|---------------------------------------------|---------------------------------------------|

<sup>84</sup><https://www.revistageominas.com/home/editions/85/potencial-de-reservas-de-bauxita-en-el-granito-santa-rosal%C3%ADa-estado>

85 [https://www.researchgate.net/profile/Noel-Marino/publication/388224632\\_DEPOSITOS\\_DE\\_BAUXITA\\_EN\\_EL\\_ESCUDO\\_DE\\_GUAYANA\\_VENEZOLANO\\_ACTUALIZACION\\_DE\\_LOS\\_RECURSOS\\_INFERIDOS\\_Y\\_OTRAS\\_CONSIDERACIONES\\_GEOMINERAS\\_BAUXITE\\_DEPOSITS\\_IN\\_THE\\_VENEZUELAN\\_GUIANA\\_SHIELD\\_UPDATED\\_OF\\_INFERRED\\_LINKS/678f9e8075d4ab477e54a239/DEPOSITOS-DE-BAUXITA-EN-EL-ESCUDO-DE-GUAYANA-VENEZOLANO-ACTUALIZACION-DE-LOS-RECURSOS-INFERIDOS-Y-OTRAS-CONSIDERACIONES-GEOMINERAS-BAUXITE-DEPOSITS-IN-THE-VENEZUELAN-GUANA-SHIELD-UPDATED-OF-INFERRED.pdf?tp=evjib250ZXhoIjpr7lmZpcnNoUGFnZSI6InB1YmxyY2FoaWouIiwicGFnZSI6InB1YmxyY2FoaWouIn19](https://www.researchgate.net/profile/Noel-Marino/publication/388224632_DEPOSITOS_DE_BAUXITA_EN_EL_ESCUDO_DE_GUAYANA_VENEZOLANO_ACTUALIZACION_DE_LOS_RECURSOS_INFERIDOS_Y_OTRAS_CONSIDERACIONES_GEOMINERAS_BAUXITE_DEPOSITS_IN_THE_VENEZUELAN_GUIANA_SHIELD_UPDATED_OF_INFERRED_LINKS/678f9e8075d4ab477e54a239/DEPOSITOS-DE-BAUXITA-EN-EL-ESCUDO-DE-GUAYANA-VENEZOLANO-ACTUALIZACION-DE-LOS-RECURSOS-INFERIDOS-Y-OTRAS-CONSIDERACIONES-GEOMINERAS-BAUXITE-DEPOSITS-IN-THE-VENEZUELAN-GUANA-SHIELD-UPDATED-OF-INFERRED.pdf?tp=evjib250ZXhoIjpr7lmZpcnNoUGFnZSI6InB1YmxyY2FoaWouIiwicGFnZSI6InB1YmxyY2FoaWouIn19)

<sup>86</sup> <https://observatorio.gob.ve/cvg-recupera-la-produccion-de-las-empresas-basicas-de-guayana/>



|                                                 |                                                                                                                                                      |                                                                                                                                                      |                                                                                                                                                                                  |                                                                                                                                                                   |                                                                                                                                                                |                                                                                                                                                                                |
|-------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Nickel (Ni)<br/>+<br/>Manganese</b>          | Loma de Hierro (border Aragua – Miranda). Surface lateritic deposits.                                                                                | +28.9 Mt in lateritic deposits. Historical production: ~17,500 t/year of ferronickel. Low exploratory risk: 50+ years in operation.                  | India as long-term absorption market. Multi-alignment alliances for HPAL technology transfer. Global demand projected +800% in the next decade for lithium-ion batteries.        | Futures low: USD 16,000–18,000/t. Bearish trend expected until 2028 due to increased supply from Indonesia and the Philippines.                                   | HPAL technology to convert Class II laterites into MHP (Mixed Hydroxide Precipitate) and high-purity nickel sulfate. High capital investment. Open-pit mining. | Presidential Decree No. 4,598 (2021): strategic mineral. Requires joint ventures. Open framework for foreign investment.                                                       |
| <b>Coltan<br/>+ Rare<br/>Earth<br/>Elements</b> | Coltan: Bolívar and Amazonas as states, Parguaza sector (AMO). Rare earths: Cerro Impacto (Bolívar – Amazonas as border). Surface alluvial deposits. | Official projection: 35,000 t for 2025 (no NI 43-101 certification). Rare earths (Nd, La, Ce): no quantified reserves under international standards. | First-mover advantage for those financing the quantification phase. Potential priority position in future commercialization. Critical Minerals for microelectronics and defense. | Active smuggling to neighboring countries. Irregular armed groups with territorial control. Absence of certified geoscientific data. Difficult logistical access. | Manual alluvial extraction in initial stage. Requires militarized corporate security perimeters.                                                               | 2019–2025 Mining Sector Plan with formal incentives. Active JVs: Metales del Sur, Ecosocialista Parguaza S.A., Ecosocialista Oro Azul S.A. Limited institutional transparency. |



|                     |                                                                                                                   |                                                                                                                       |                                                                                                                                                                                             |                                                                                                                                                            |                                                                                                                       |                                                                                                                                                                                                                                                                |
|---------------------|-------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Lithium (Li)</b> | Pegmatites in hard rock. Miranda, Nueva Esparta, and Bolívar states.                                              | National estimations: +28 Mt. Known presence since 1987. No official proven reserves. Currently in exploratory stage. | Investment opportunity in systematic drilling campaigns and international reserve certification. Venezuela's exploratory stage represents an early-entry advantage for Indian corporations. | No proven reserves. Direct competition from the Lithium Triangle (Argentina, Bolivia, Chile) with greater operational experience.                          | Requires lithium hydroxide extraction. Needs systematic drilling campaigns and verification of prior geological data. | In exploratory stage, no specific decrees or regulations exist. Requires release/making of state geoscientific data to advance toward proven reserves and, then, attract investment.                                                                           |
| <b>Gold (Au)</b>    | Orinoco Mining Arc (AMO). Bolívar State: Las Cristinas and Brisas deposits (pending international certification). | 2,236 t certified in the AMO. Potential to enter global top 10 deposits. Record production in 2025: 79.49 t.          | OFAC GL 51 reduces threat of secondary sanctions for corporate actors from third countries. Sectoral flexibility precedent. Gold as reserve asset in multipolar financial architecture.     | Extortion and smuggling estimated at ~20% of production. Need for investment in productive infrastructure and geochemical sampling to verify deposit data. | Hydrometallurgical plants with cyanide leaching: 85% recovery. Progressive elimination of mercury. Open-pit mining.   | Decree 8,413 (2011): JVs with 55% state ownership. Decree 2,165 (2015): exclusive BCV marketing. Decree 2,412 (2016): mercury ban. Anti-Blockade Law (2020). OFAC GL 51 (2026): authorizes US transactions, facilitates third-party actors without legal risk. |



|                                                   |                                                                                                              |                                                                                                                                                                         |                                                                                                                                                                |                                                                                                                                                                                    |                                                                                                                                                                                     |                                                                                                                                                                        |
|---------------------------------------------------|--------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Industrial Metals</b><br><b>Iron · Bauxite</b> | Guayana Shield (iron). Cedeño Municipality, Bolívar: Los Pijiguaos mine and bauxite quadrilateral (bauxite). | Iron: +14,678 Mt total (3,631 Mt proven · 2,326 Mt probable · 8,711 Mt possible). 8th world reserve. Bauxite: 321 Mt official; expanded estimate: 1,800 Mt to 5,000 Mt. | JVs with regional comparative advantage due to mineral abundance. Bauxite → aluminum value chain for renewable energies. Iron exports projected +50% for 2026. | Sector decline 2008–2019 due to lack of investment, technological obsolescence, and national electricity supply deficit. High need for industrial infrastructure recapitalization. | Open-pit mining (Los Pijiguaos). Gibbsite bauxite of high quality (direct chemical refining). State companies: CVG-Bauxilum, Bauxilum, Alcasa, Venalum. 2022 extraction: 770,000 t. | State companies CVG-Bauxilum as existing operational structure. Open to foreign capital via joint ventures. 181% growth in iron exports in 2025 (from depressed base). |
|---------------------------------------------------|--------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Sources:** Own elaboration, 2026. Based on cross-referenced data from specialized sources.

**Mineral Legend:** ■ Nickel ■ Coltan / Rare Earths ■ Lithium ■ Gold ■ Industrial Metals Industrial

### Analysis of Barriers to Entry, Infrastructure and Risks

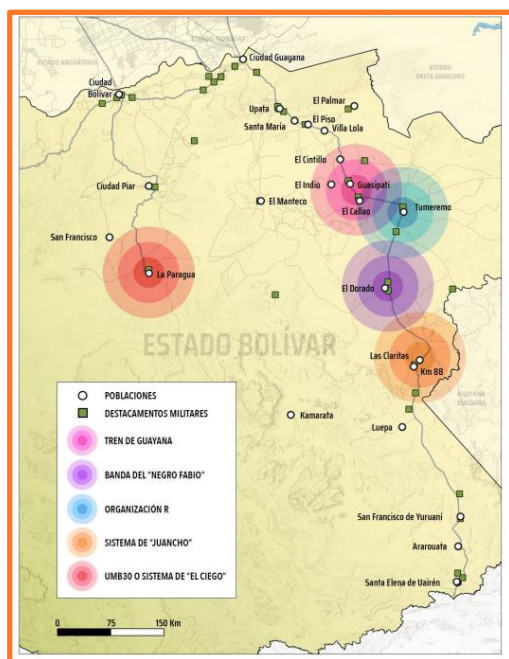
As has been discussed throughout this study, the extraction of critical and complementary minerals is largely concentrated in the Arco Minero del Orinoco (AMO), an area that presents operational risks due to the presence of irregular armed groups. Parallel to the expansion experienced by the mining sector during the economic crisis, local criminal networks took advantage of the migration of people to the south, implementing the "*pranato*" model, a hierarchical structure of domination, extortion, and violence that evolved from prisons to the territorial control of the mines<sup>87</sup>. The institutional weakness and the inability of the centralized power to enforce coercion allowed these gangs —in some cases connected to transnational crime— will operate in collusion with local civil and military authorities, creating a corruption network that facilitates the smuggling of minerals to the Caribbean, Colombia, Türkiye, and Asia<sup>88</sup>.

The areas with the greatest activity of these groups are concentrated intensively in the municipalities of Roscio, El Callao and Sifontes in the state of Bolívar; as well as in localities of the Cerro Yapacana National Park, the Alto Orinoco, the Casiquiare Biosphere Reserve and the Serranía La Neblina National Park in the state of Amazonas, facilitated by the jungle area in the areas adjacent to the State of Brazil (presence of *garimpeiros*)<sup>89</sup>.

<sup>87</sup><https://eldiario.com/2026/03/12/teexplicamos-como-es-la-realidad-mineria-venezuela-nueva-ley/>

<sup>88</sup><http://www.scielo.org.co/pdf/recig/v18n30/2500-7645-recig-18-30-335.pdf>

<sup>89</sup><https://transparenciave.org/economias-ilicidas/wp-content/uploads/2025/04/Explotacion-de-oro-en-Venezuela-2024.-Transparencia-Venezuela-en-el-exilio.pdf>



Source: Transparencia Venezuela<sup>90</sup>.

As a state initiative to eradicate these criminal networks, the State has implemented a series of military and administrative strategies. Among the military operations are “Operation Roraima” in Bolívar and “Operations Autana and Neblina” in Amazonas during 2022. These interventions aimed to dismantle camps, destroy rafts and heavy machinery, disable clandestine airstrips, and capture gang members. Specialized security forces were also created, such as the “Arco Minero del Orinoco Protection Group (GPAMO)” and the “Special Protection Units of the Arco Minero del Orinoco (UEPAMO),” to carry out activities complementary to military operations. This strategy is further complemented by the administrative formalization of miners, requiring their registration in the “Registro Único Minero” (URM) and promoting the creation of “Strategic Alliances” among mining companies operating in the area, in order to process the minerals as soon as they are extracted, in order to limit smuggling channels<sup>91</sup>.

Also, the operational collapse of key companies, especially CVG, was heavily influenced by the National Electric System and the shortage of refined fuels (diesel) needed for heavy machinery<sup>92</sup>, which would present operational risks in the short term. To address this, the legislative package presented in early January 2026 by the National Executive, which includes the “Ley del Sistema Eléctrico Nacional and the Ley del Uso Racional de la Energía”, which aims to create opportunities for private capital and renewable energy through legal viability; it is estimated that energy generation will support mining production incentives in the short to medium term. Similarly, incentives for the reactivation of the oil sector, driven primarily by the United States, also provide predictability to the demand for heavy machinery.

<sup>90</sup><https://transparenciave.org/economias-ilicitas/wp-content/uploads/2025/04/Explotacion-de-oro-en-Venezuela-2024.-Transparencia-Venezuela-en-el-exilio.pdf>

<sup>91</sup><https://transparenciave.org/economias-ilicitas/wp-content/uploads/2025/04/Explotacion-de-oro-en-Venezuela-2024.-Transparencia-Venezuela-en-el-exilio.pdf>

<sup>92</sup> <https://eldiario.com/2026/03/12/teexplicamos-como-es-la-realidad-mineria-venezuela-nueva-ley/>



Additionally, to ensure operational viability and protect mining from structural vulnerabilities in the National Electric System, an opportunity arises to incentivize an energy enclave model where producing companies generate energy locally that will be used for their production, as is the case in the hydrocarbon sector with Productive Participation Contracts (CPP)<sup>93</sup>. This design can be supported by the expedited importation —protected by the tariff exemptions of the Special Economic Zones— of hybrid microgrids for electricity generation. This infrastructure requires the integration of photovoltaic solar parks complemented by high-density battery bank storage systems.

In particular, given that India is a promoter of the International Solar Alliance (ISA) and has experience in renewable energy generation conglomerates (such as Adani Green Energy or Tata Power)<sup>94</sup> Their experience in building isolated microgrids could be crucial for the reactivation of the mining industry in Venezuela. Furthermore, the hydroelectric generation potential in the Guayana region can be exploited as a competitive energy source, once the existing infrastructure is stabilized<sup>95</sup>. Therefore, foreign investment could be directed directly to pre-existing generation mechanisms without the need for heavy capital investment in novel mechanisms.

#### RISK AND SOLUTIONS SCHEME — VENEZUELAN MINING SECTOR

Barriers to Entry, Infrastructure, and Operational Risks · Embassy of India in Caracas · Q1 2026

|                                                                                         | Structural /<br>Operational Risk<br>▶                                                                                                                                                                                                                                                                                         | Risk<br>Epicenter<br>▶                                                                                                                                                                                                                                                                       | State Containment<br>Policies · Security<br>▶                                                                                                                                                                                                                                                                                                                                 | Corporate Solution /<br>India Opportunity                                                                                                                                                                                                                                    |
|-----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>CHAIN A</b><br><b>Territorial Security &amp; Organised Crime</b><br><b>(pranato)</b> | <b>Criminal networks ("pranatos")</b> seized territorial control of mines during the economic crisis, operating in collusion with local civil and military authorities. They facilitate mineral smuggling to the Caribbean, Colombia, Türkiye and Asia.<br><br><b>Transnational organised crime · ~20% of gold production</b> | Municipalities of <b>Roscio, El Callao,</b> and <b>Sifontes</b> (Bolívar). Amazonas State: N.P. Cerro Yapacana, Alto Orinoco, Casiquiare Biosphere Reserve, and N.P. Serranía La Neblina. Border areas with Brazil ( <b>garimpeiros</b> ).<br><br><b>Bolívar · Amazon as · Brazil Border</b> | Military operations (2022): <b>"Operation Roraima"</b> (Bolívar) and <b>"Operations Autana and Neblina"</b> (Amazonas). Camp dismantlement and clandestine airstrip disabling. Creation of <b>GPAMO</b> and <b>UEPAMO</b> . Administrative formalization: <b>Registro Único Minero (RUM)</b> and inter-company Strategic Alliances.<br><br><b>GPAMO · UEPAMO · RUM · 2022</b> | Establishment of <b>corporate security perimeters</b> . Strategic alliances for <b>on-site mineral processing</b> , cutting the temporal window of illegal extraction and limiting smuggling channels before transfer.<br><br><b>Security Enclave · Processing at Place.</b> |

<sup>93</sup><https://bitacoraeconomica.com/otorgan-a-traves-de-los-cpp-incentivos-a-empresas-que-generen-su-propia-electricidad/>

<sup>94</sup>[https://isa.int/about\\_uss](https://isa.int/about_uss), <https://isa.int/data>, <https://www.adani.com/businesses/energy-utilities/green-energy> and <https://www.tatapower.com>.

<sup>95</sup><https://www.desarrollominero.gob.ve/wp-content/uploads/2024/04/MPPDME-Catalogo-Oferta-Exportable-Inversion-Minera.pdf>



|                                                                                  |                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                  |
|----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>CHAIN B</b><br><br><b>Energy Collapse &amp; Critical Infrastructure (CVG)</b> | Operational collapse of <b>CVG</b> and key companies due to structural failures in the <b>National Electric System</b> and diesel shortage for heavy machinery. Short-term risk for the entire AMO mining production chain.<br><br><b>Systemic energy risk · CVG · AMO</b> | <b>Guayana Shield (Bolívar):</b> CVG-Bauxilium infrastructure, steel plants, ferronickel plants, and aluminum complexes (Alcasa, Venalum). <b>Orinoco Mining Arc</b> with critical dependence on deteriorating electricity supply.<br><br><b>Bolívar · AMO · CVG · Alcasa · Venalum</b> | <b>Legislative package (January 2026):</b> : Ley del Sistema Eléctrico Nacional y Ley del Uso Racional de la Energía — opening to private capital and renewables with legal viability. <b>Special Economic Zones (SEZ)</b> with tariff exemptions. Domestic and external incentives for oil sector reactivation.<br><br><b>National Electric System Law 2026 · SEZ · Renewables · Oil</b> | Opportunity for <b>energy enclave model</b> : local energy generation by mining companies. Import of <b>hybrid microgrids</b> (photovoltaic solar + high-density batteries) via SEZ. India as promoter of the <b>International Solar Alliance (ISA)</b> : comparative advantage. Guayana hydroelectric potential as pre-existing complementary source.<br><br><b>ISA · Adani Green · Tata Power · Microgrids</b> |
|----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Sources:** Transparencia Venezuela · Gaceta Oficial (Decretos y Leyes, 2026) · Own elaboration, 2026. Based on cross-referenced data from specialized sources.



# PART IV

## MAPPING THE SECTORAL CORPORATE ECOSYSTEM



## PART IV

### MAPPING THE SECTORAL CORPORATE ECOSYSTEM

This section examines the main state-owned and mixed-ownership entities in the Venezuelan mining and industrial chain with direct involvement in critical minerals and strategic metals. The selection is based on three criteria: active or potential participation in minerals relevant to the global energy transition; institutional weight within the Venezuelan state structure; and availability of verifiable information on their operational status. Under these criteria, the analysis covers CVG and its operating subsidiaries (Bauxilum, Venalum, Alcasa, and Ferrominera), CVM—merged with Minerven since March 2016—and the mixed-ownership companies with active concessions in the Arco Minero del Orinoco: Parguaza S.A., EMMEOA, Corporación Faoz, and TECMIN. A specific section on SIDOR is also included, justified by its unique historical significance, its structural interdependence with the CVG's steel chain, and the critical disinvestment scenario it is experiencing, which presents an opportunity for foreign investment.

#### Clarification

The operation of the Venezuelan mining sector is characterized by an approach that requires further development within its framework of institutional transparency. Therefore, some information is difficult to corroborate. Production figures should be interpreted with caution. Lithium, although frequently mentioned in official speeches, requires identified operating companies for its exploitation in Venezuela, so no entity is included under that category. According to analysts at GEM Mining, it will be several years before it is known whether Venezuela has commercially exploitable lithium, and there has been no significant copper exploration for more than twenty-five years<sup>96</sup>.

#### The Venezuelan Guayana Corporation (CVG) and its central role

CVG is a decentralized Venezuelan state holding company of heavy industry, made up of a vertically integrated alumina complex that includes Bauxilum, Carbonorca and the aluminum reduction plants Alcasa and Venalum<sup>97</sup>. Its relevance to this market study lies in the fact that it constitutes the institutional framework upon which the entire mineral extraction and primary processing industry in the Guayana region rests. CVG's functions also include promoting the industrial development of the private sector and the rational use of resources in development zone of Guayana, among others<sup>98</sup>.

The corporation comprises 14 companies that operate and develop in various sectors, including mining, forestry, aluminum, and services, among others. The four most important subsidiaries for the critical minerals and industrial metals value chain are: CVG Bauxilum, CVG Venalum, CVG Alcasa, and CVG Ferrominera Orinoco.

<sup>96</sup><https://www.infobae.com/economia/2026/01/10/mas-que-petroleo-como-los-minerales-criticos-de-venezuela-pueden-afectar-las-inversiones-en-argentina-y-otros-paises-de-america-latina/>

<sup>97</sup><https://www.infobae.com/economia/2026/01/10/mas-que-petroleo-como-los-minerales-criticos-de-venezuela-pueden-afectar-las-inversiones-en-argentina-y-otros-paises-de-america-latina/>

<sup>98</sup><https://www.cvg.gob.ve/?q=node/2>



### 1. CVG Bauxilum: Extraction of bauxite (a precursor mineral of aluminum)

It operates in the Los Pijiguaos mine, in Bolívar state, as a source of raw material for the country's aluminum reduction plants. CVG Bauxilum closed 2022 with a production of 770,000 tons of bauxite, a stark contrast to 2018, when production reached only 38,000 tons. Production was projected to reach 2 million tons of bauxite by 2023<sup>99</sup>. This recovery, although partial within the company's historical context, represents a sign of progressive reactivation within the CVG holding company and constitutes an indicator of the sector's responsiveness to targeted investment policies.

### 2. CVG Venalum: Primary aluminum production

CVG Venalum produced approximately 8,430 tons in 2022, the highest amount of processed aluminum since 2017, with an ore purity reaching 99.7%; however, this recovery is fragile<sup>100</sup>. In August 2024, a nearly 13-hour power outage damaged some of Venalum's 200 electrolytic cells. Workers explained that this occurs due to an overload in the cells, which must be continuously powered to prevent them from shutting down. When the power returned after the outage, it generated sparks and caused structural damage<sup>101</sup>. By 2022, Venalum was producing at 53.8% capacity, with over 1,500 workers<sup>102</sup>.

### 3. CVG Alcasa: Second aluminum reduction plant

Founded in 1967, it operates as the second aluminum smelter in the CVG system. Like Venalum, its performance has been severely affected by the Venezuelan energy crisis. Following the Venezuelan energy crisis, the aluminum industry entered a period of gradual production decline, beginning with the shutdown of electrolytic reduction cells to reduce electricity consumption, generating serious consequences for companies in the sector<sup>103</sup>.

### 4. CVG Ferrominera Orinoco: Iron extraction for the steel industry

It is the company in charge of iron ore extraction at Cerro Bolívar and Cerro del Pao, in Bolívar state, representing the first link in the steelmaking chain that culminates at SIDOR. CVG Ferrominera Orinoco produced 22 million tons of iron in 2006, and until the late 1990s, it was able to process and add value to 64% of that ore within Venezuela<sup>104</sup>. In January of this year, the iron ore company carried out the largest blast in its history, removing 634,100 tons of ore and creating a total of 563 drill cones. Official reports also indicate that the blasting schedule has been strictly adhered to, with a total of 65 blasts carried out in the San Isidro Quadrilateral, as part of the strategies designed to strengthen iron ore production<sup>105</sup>.

<sup>99</sup><https://observatorio.gob.ve/cvg-recupera-la-produccion-de-las-empresas-basicas-de-guayana/#:~:text=CVG%20recupera%20la%20producci%C3%B3n%20de%20las%20empresas%20b%C3%A1sicas%20de%20Guayana&text=El%20presidente%20de%20la%20Corporaci%C3%B3n,producci%C3%B3n%20durante%20el%20a%C3%B1o%202022.>

<sup>100</sup>Ibid

<sup>101</sup><https://www.elnacional.com/2024/08/sobrecarga-provoco-una-explosion-en-celdas-de-venalum/>

<sup>102</sup><https://www.bancaynegocios.com/gobierno-venalum-produce-a-538-de-capacidad-y-sidor-ha-recuperado-20-plantas/>

<sup>103</sup><https://correodelcaroni.com/correo-de-ayer/el-plan-de-alcasa-en-1992-ingresos-y-conquista-de-mercados-tras-inauguracion-de-planta-de-laminacion/>

<sup>104</sup><https://hexa-legal.com/sidor-podria-producir-el-acero-mas-verde-del-mundo-a-un-costo-200-inferior-al-promedio-global/>

<sup>105</sup><https://www.ferrominera.com/publicaciones/ferrominera-orinoco-realiza-la-voladura-mas-grande-de-su-historia/>



## Value chain integration and hydroelectric comparative advantage

The structural strength of the CVG model lies in the vertical integration of the production chain: bauxite mining (Bauxilum) → alumina production → electrolytic reduction (Alcasa and Venalum) → primary aluminum. In the iron and steel sector: mining (Ferrominera) → direct reduction → steel production (SIDOR). Venezuela has the capacity to produce up to 30 million tons of iron ore at low cost in direct reduction plants and 17.8 million tons of liquid steel annually, thanks to the combination of high-quality mineral deposits, the hydroelectric power of the Caroní River, and low-cost natural gas.<sup>106</sup> Its production does not depend on coal and coke as fuels, because it uses electric arc furnaces and direct reduction. This combination represents a global competitive advantage in terms of production costs and carbon footprint, especially relevant in the context of the global energy transition and the demands for "green" steel and aluminum.

| Iron, Aluminum and Steel Chain — CVG Holding and SIDOR    |                                               |                                                                                      |                                                                                                                                                                       |                                                                                                                                                                        |                                                                                                                                                                                                                                      |
|-----------------------------------------------------------|-----------------------------------------------|--------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Company / Actor                                           | Legal Nature                                  | Business / Function                                                                  | Collaboration Advantages for India                                                                                                                                    | Direct Competition /Rival Actors                                                                                                                                       | Recommended Strategic Decision                                                                                                                                                                                                       |
| CVG (Holding) · Bauxilum · Venalum · Alcasa · Ferrominera | Decentralized state holding (14 subsidiaries) | Bauxite → alumina → primary aluminum; iron → steel chain. Full vertical integration. | Institutional framework with vertically integrated chain. Green aluminum production (hydroelectric + gas). Progressive recovery: Bauxilum achieved 770,000 t in 2022. | Chinese and Russian capital have operated in the region. European companies with interest in renewable aluminum. No formally established direct competitor at present. | Technical JV with CVG Bauxilum to revitalize the bauxite–aluminum chain under the new 30-year concession framework (Organic Mining Law). Technology transfer from Hindalco/NALCO for modernization of electrolytic reduction plants. |
| CVG Bauxilum                                              | State-owned (CVG subsidiary)                  | Bauxite extraction. Los Pijiguaos mine, Bolívar. Estimated reserves: up to 5,000 Mt. | High-quality raw material (gibbsitic). Production in recovery: 770,000 t (2022) vs 38,000 t (2018). Signal of sustained reactivation.                                 | Documented interest from Chinese and BRICS companies. No competing formal-legal concession.                                                                            | Long-term bauxite supply agreement + investment in extraction capacity under 30-year concession. High priority.                                                                                                                      |

<sup>106</sup><https://www.bancaynegocios.com/acero-hierro-sidor-palogrande/>



|                                 |                                                   |                                                                                                      |                                                                                                                                                       |                                                                                                                                                                                            |                                                                                                                                                                                                                       |
|---------------------------------|---------------------------------------------------|------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CVG Venalum                     | State-owned (CVG subsidiary)                      | Electrolytic reduction. Primary aluminum (99.7% purity). 200 electrolytic cells.                     | Largest batch of processed aluminum since 2017 (8,430 t in 2022), competitive purity. Green aluminum potential with Caroní River hydroelectric power. | Global aluminum market dominated by China and Russia (RUSAL). Regional competitors: Brazil (Albras), Canada.                                                                               | Capital investment in modernization of damaged electrolytic cells. CPP model applied to aluminum.                                                                                                                     |
| CVG Alcasa                      | State-owned (CVG subsidiary)                      | 2nd aluminum smelter in the CVG system. Founded 1967. Production severely affected by energy crisis. | Historic plant with installed base infrastructure. Recoverable with targeted energy investment. Complements Venalum's capacity.                       | Same actors as Venalum. Energy crisis acted as an involuntary barrier to entry for competitors.                                                                                            | Progressive rehabilitation with energy focus. Entry as technical solution provider rather than production buyer. Medium term.                                                                                         |
| CVG Ferrominera Orinoco         | State-owned (CVG subsidiary)                      | Iron extraction (Cerro Bolívar, Cerro del Pao, Bolívar). First link in the steel chain toward SIDOR. | Record blast January 2026: 634,100 t. High-quality deposits. Historical capacity: 22 Mt/year. Signal of operational reactivation.                     | Global iron industry dominated by Brazil (Vale) and Australia (Rio Tinto, BHP). No documented direct competitor in Venezuela for Ferrominera's concessions.                                | Iron supply agreement for India's steel industry. Long-term strategic position with moderate entry cost given the current state of infrastructure.                                                                    |
| SIDOR (Siderúrgica del Orinoco) | State-owned (actively seeking foreign investment) | Steel production. Installed capacity: 5.1 Mt/year. 2025 production: 41,000 t (1% of capacity).       | "Green steel" competitive globally: <800 kg CO <sub>2</sub> /t. Potential cost <\$300/t (vs. \$500–600 global). Exceptional M&A window.               | Latin American and European private capital historically interested. Ternium operated the plant before nationalization (2008). Documented Chinese interest in the Venezuelan steel sector. | Acquisition or JV with majority participation under the new 2026 legal framework + \$5,000M reactivation plan over 5 years. Most urgent M&A business case in the Venezuelan portfolio for foreign industrial capital. |

**Sources:** Own elaboration, 2026. Based on cross-referenced data from specialized sources.



## Corporación Venezolana de Minería (CVM)

It is a state-owned company that mines minerals such as cassiterite (tin), nickel, coltan, and associated minerals. It was created on December 26, 2012, with the objective of promoting and developing the country's mining industry. In June 2016, it was transferred as an entity attached to the Ministry of People's Power for Ecological Mining Development<sup>107</sup>. Its most active project recently is the exploitation of cassiterite in the Arco Minero del Orinoco (AMO). In 2024, President Nicolás Maduro granted CVM the "exclusive right" to carry out exploration and exploitation activities for cassiterite and associated minerals in the Arco Minero del Orinoco, with the aim of positioning Venezuela in the international market for this mineral, essential for obtaining tin used in soldering alloys, the ceramics industry, and other technological sectors<sup>108</sup>.

CVM is the main state-owned corporation in charge of non-gold mining of critical minerals in Venezuela. One of CVM's most recent achievements was acquiring the exclusive rights to mine and export the mineral cassiterite.<sup>109</sup> Venezuela exported 833 tons of cassiterite.<sup>110</sup>, primarily intended for China and the BRICS countries.<sup>111</sup>

In terms of foreign investment, cassiterite exports are destined for China and the BRICS countries, with the aim of establishing international markets for the country's mining production. CVM operates under a framework of strategic alliances with national and international partners, although the details of these agreements are not always publicly available.

**Warning:** The institutional structure of CVM underwent a significant change in March 2026, when it was merged by absorption with the General Mining Company of Venezuela (Minerven). This process is analyzed in detail in the following pages of this study.

### Minera Loma de Níquel C.A.:

It is currently in the process of transitioning from state to private concession (originally a private company of Anglo American, expropriated in 2012, reactivated through concession in 2024)<sup>112</sup>. It is mainly based on the exploitation of nickel (ferronickel)<sup>113</sup>, and is the first commercial nickel ophiolite mine in Venezuela, processing nickel and iron from a geological deposit 7 kilometers long and 2 kilometers wide, discovered in 1941. The deposit is estimated to have nickel reserves of approximately 40 million metric tons<sup>114</sup>.

London-based Anglo American held a 91.4% stake in the company until 2012, when the government of Hugo Chávez canceled 13 of its concessions and refused to renew three others,

<sup>107</sup>[https://desarrollominero.gob.ve/?page\\_id=58217](https://desarrollominero.gob.ve/?page_id=58217)

<sup>108</sup><https://orinocorp.com/explotacion-casiterita-venezuela-2024-arco-minero/>

<sup>109</sup><https://desarrollominero.gob.ve/?p=64319>

<sup>110</sup><https://www.swissinfo.ch/spa/maduro-aprueba-trabajos-de-explotaci%C3%B3n-estatal-de-casiterita-en-el-arco-minero-del-orinoco/87664911>

<sup>111</sup><https://share.google/HosVz2rIMyaz6zjR7>

<sup>112</sup><https://ultimasnoticias.com.ve/economia/planta-loma-de-niquel-suscribe-contrato-con-multinacional-para-elevar-niveles-de-produccion/>

<sup>113</sup><https://rafay.com/proyecto/minera-loma-de-niquel/>

<sup>114</sup>Ibid.



forcing the firm to abandon its operations in the country. Nickel production in Venezuela fell from 8,100 tons in 2012 to zero the following year<sup>115</sup>.

In December 2024, the Venezuelan government announced the "reactivation, upgrading, and technological modernization" of the company, signing a 25-year concession contract with a multinational corporation whose name was not disclosed. The plan has three phases, extending to 2026: the first phase involves an investment of \$32 million to acquire cutting-edge technology and upgrade industrial equipment; phases two and three envision expanding the industrial park and fully activating all three production lines, with an additional investment of \$115 million. Ferronickel production is projected at 1.35 billion tons<sup>116</sup>.

In terms of links with foreign investment, the concession contract signed in 2024 involves an unidentified multinational, backed, according to the government, by a globally established banking group<sup>117</sup>. Finally, it is important to keep in mind that the mine's previous history is directly linked to British capital, through the Anglo-American company.

### **Joint Venture Minera Ecosocialista Parguaza, S.A.**

This joint venture —Venezuelan State with at least 55% of the capital + private partner)<sup>118</sup>— is located in the Cedeño Municipality, Bolívar state, in the southern part of the Arco Minero del Orinoco. The company focuses its activity on the mining of coltan (columbite-tantalite: niobium and tantalum). It has assigned areas for the exploration, mining, and processing of columbite-tantalite (coltan) deposits, through which Técnica Minera C.A. (TECMIN) has conducted environmental and sociocultural impact studies<sup>119</sup>.

According to statements by the Deputy Minister of Exploration and Ecomining Investment, there are three joint ventures working on the issue of coltan from the Arco Minero del Orinoco.<sup>120</sup> Parguaza S.A. is one of the few companies with formalized concessions for the exploitation of this strategic mineral. Venezuelan coltan is considered of great importance to the telecommunications and defense industries.

### **Joint Venture Minera Ecosocialista Oro Azul, S.A. (EMMEOA)**

It is primarily dedicated to the exploitation of coltan (columbite-tantalite), rare earth elements, cassiterite, ilmenite, tin, zircon, and titanium. EMMEOA carries out all the necessary activities for the exploration, exploitation, and commercialization of tantalum, niobium, tin, titanium, zirconium, rare earth elements, and bauxite, within an assigned area of 8,158.9 hectares<sup>121</sup>.

<sup>115</sup><https://www.equipo-minero.com/noticias/venezuela-reinicia-produccion-en-loma-de-niquel/>

<sup>116</sup><https://ultimasnoticias.com.ve/economia/planta-loma-de-niquel-suscribe-contrato-con-multinacional-para-elevar-niveles-de-produccion/>

<sup>117</sup> Ibid.

<sup>118</sup><https://share.google/efktFahVzh2ngqaAP>

<sup>119</sup><http://www.tecmin.gob.ve/index.php/proyectos/8-informacion-empresarial>

<sup>120</sup><https://miningpress.com/nota/306931/venezuela-certifico-nuevas-reservas-de-minerales->

<sup>121</sup><https://emmeoa.com/>



The company operates in the municipality of Cedeño, Bolívar state, in the Villacoa sector, encompassing the indigenous communities of Tiritá, La Unión, Pastoral de Villacoa, and Charababilla, within the lower middle course of the Villacoa River. The areas of greatest metallogenic interest for critical minerals—ilmenite, cassiterite, bauxite, rare earth elements, and columbite-tantalite—associated with large granitic complexes, are located in the northeastern part of Amazonas state and southwest of the Cedeño district in Bolívar state.

EMMEOA is one of the few entities in Venezuela that formally operates at the intersection of coltan and rare earth elements, two categories of minerals in high global demand for the energy transition. Studies conducted by researchers from Venezuelan universities confirm the presence of columbite-tantalite minerals, including struveriite, ferrowodginite, titanium, wodginite, and ferrocolumbite, as well as rare earth minerals, titanium, and tin in the area of its concession<sup>122</sup>.

### **Técnica Minera C.A. (Tecmin)**

It's a company State-owned (public mining technology and research company) linked to materials such as coltan, nickel, rare earth elements, bauxite and other strategic minerals (based on research, certification and environmental studies, not direct extraction)<sup>123</sup>

TECMIN C.A. was created in 1986 by the Venezuelan Guayana Corporation, with the initial mission of inventorying the natural and mineral resources of Guayana. It is currently attached to the Ministry of People's Power for Ecological Mining Development. It has been conducting environmental and sociocultural impact studies for the joint ventures Parguaza S.A. and Oro Azul S.A., both of which have been assigned areas for the exploration, exploitation, and industrialization of columbite-tantalite (coltan) deposits in the Cedeño municipality of Bolívar state<sup>124</sup>.

TECMIN is the key geological intelligence entity and the technical arm of the Venezuelan State for the Arco Minero del Orinoco projects. Located in Puerto Ordaz, Bolívar state, it operates nationwide. After years of study in the region, it possesses strategic knowledge of blocks with confirmed reserves, making it the fundamental support for opening the sector to interested external investors. Finally, TECMIN acts as the State's technical liaison with international companies interested in the sector. Its baseline studies are a prerequisite for signing concession agreements or strategic alliances.

<sup>122</sup>Ibid.

<sup>123</sup><http://www.tecmin.gob.ve/index.php/proyectos/8-informacion-empresarial>

<sup>124</sup>Ibid.



| Critical Minerals, Gold and Energy Transition                  |                                                                             |                                                                                                                          |                                                                                                                                                                                                                                         |                                                                                                                |                                                                                                                                                                                                                          |
|----------------------------------------------------------------|-----------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Company / Actor                                                | Legal Nature                                                                | Business / Function                                                                                                      | Cooperation Advantages for India                                                                                                                                                                                                        | Direct Competition / Rival Actors                                                                              | Recommended Strategic Decision                                                                                                                                                                                           |
| <b>CVM</b><br>(Venezuelan Mining Corp.)<br>+ Minerven absorbed | State-owned (post-merger, March 2026)                                       | Cassiterite/tin, coltan, gold (towards Minerven absorption). Holds all non-gold AMO concessions.                         | Single centralized state interlocutor post-merger. Eliminates institutional fragmentation. Exclusive rights over cassiterite in AMO. 833 t exported (destination: China and BRICS). Declared openness to Indian investment (Nov. 2025). | China and BRICS as primary buyers of cassiterite. BRICS capital with active presence.                          | Direct partnership with CVM as centralized gateway to the AMO. Proposal for technical JV for cassiterite and coltan exploration and processing. Agreement under new Mining Law (30-year concession). Immediate priority. |
| <b>Minerven</b><br>(dissolved, absorbed by CVM March 2026)     | State-owned (dissolved by decree — Official Gazette No. 6,994, Mar 6, 2026) | Gold processing. El Callao municipality, Bolívar. 3 plants: Carat al, Revemin, Mina Sosa Méndez. 2025 production: 9.5 t. | El Callao gold assets (70% of national gold) now under CVM. Without the direct burden of OFAC sanctions on Minerven as an entity. Processing infrastructure with 3 operational plants.                                                  | OFAC sanctioned it in 2019. China and Asian markets as historical buyers. Informal flows toward the Caribbean. | Access El Callao gold assets through CVM, not directly. Monitor the institutional restructuring of transferred assets. OFAC GL 51 active as enabler/allower.                                                             |



|                                                        |                                                                                      |                                                                                                                              |                                                                                                                                                                                                                |                                                                                                                                                 |                                                                                                                                                                                                                                                                    |
|--------------------------------------------------------|--------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Minera Loma de Níquel C.A.</b>                      | State-owned/<br>Private concession (unidentified multinational, 25 years, Dec. 2024) | Nickel (ferronickel). Loma de Hierro deposit, Aragua. Reserves: ~40 Mt. 3-phase plan: \$32M (Phase 1) + \$115M (Phases 2-3). | Only commercial ophiolite nickel deposits in Venezuela. In the process of technological reactivation. Aligned with nickel demand for EV batteries (+800% demand projected this decade).                        | Unidentified multinational with current concession. Global competition: Indonesia, Philippines dominate the nickel market.                      | Identify the concession-holding multinational as potential partner. If Indian capital cannot access "Loma de Níquel" directly, prioritize strategic linkage as technology transfer provider to CVM for ferronickel processing toward battery-grade nickel sulfate. |
| <b>Emp. Mixta Parguaza S.A.</b>                        | Mixed company (State ≥55% + private partner)                                         | Coltan (columbite-tantalite: niobium and tantalum). Cedeño municipality, Bolívar. Exploration/early stage.                   | Few formalized coltan concessions. Low entry threshold (initial stage).                                                                                                                                        | BRICS countries with interest in coltan. Active smuggling toward Colombia and Asia as informal competitors.                                     | Entry as private partner in JV under the mixed company model (≤45% private capital). First-mover advantage in the exploration stage. Potential commercialization agreement targeting India's semiconductor or defense chain.                                       |
| <b>EMMEOA (Emp. Mixta Ecosocialista Oro Azul S.A.)</b> | Mixed company (State ≥55% + private partner)                                         | Coltan, rare earths, cassiterite, ilmenite, tin, zircon, titanium. 8,158.9 ha in Cedeño, Bolívar. Active exploration.        | Only entity at the formal intersection of coltan + rare earths. University studies confirm the presence of columbite-tantalite, rare earth minerals, titanium and tin. Area of greatest metallogenic interest. | China and BRICS as implicit rare earth markets. No formal competitor identified for EMMEOA's concessions. Risk of direct Chinese capital entry. | Priority partnership as private partner in EMMEOA: simultaneous access to coltan, rare earths and titanium under a single legal vehicle. Finance NI 43-101 certification studies as method of entry and control of the technical phase.                            |



|                                          |                                                                               |                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                |
|------------------------------------------|-------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Corporación Faoz</b>                  | Mixed company (State ≥55% + private partner)                                  | Coltan. AMO, Bolívar state. Concession granted, under institutional scrutiny.                                                                                                                                            | Strategic minerals for telecommunication s and defense.                                                                                                                                                                                                               | Operating under scrutiny. Limited transparency on current private partners. Risk of opacity in capital structure.                                                                                    | Active monitoring. Not recommended as primary entry point given opacity and noted institutional scrutiny. Possible interest as secondary acquisition asset if the 2026 legal framework clarifies its status.                                                                                                                                                   |
| <b>TECMIN C.A. (Técnica Minera C.A.)</b> | State-owned (public technology and mining research company; linked to MPPDEM) | Geological intelligence, environmental and sociocultural impact studies, reserve certification. Materials: coltan, nickel, rare earths, bauxite and other strategic minerals. HQ: Puerto Ordaz, Bolívar. National scope. | Holds strategic knowledge of blocks with confirmed reserves after decades of fieldwork. Conducts mandatory environmental studies for Parguaza S.A. and Oro Azul S.A. Its baseline studies are a prerequisite for signing concession contracts or strategic alliances. | No direct commercial competitor (State monopoly on technical mining intelligence). Indirect competition from foreign geological survey firms that could displace TECMIN in advising concessionaires. | Establish formal collaboration agreement (MoU or JTA) with TECMIN as the technical State interlocutor for Indian corporations. Co-finance NI 43-101 certification campaigns to gain access to geoscientific data and accelerate the path to proven reserves. TECMIN's technical endorsement is a de facto requirement to access the AMO's concession pipeline. |

**Sources:** Own elaboration, 2026. Based on cross-referenced data from specialized sources.

## Operational merger between CVM and the State Minerven

### What was Minerven?

The General Mining Company of Venezuela, C.A. (Minerven) was established as a mixed company on February 4, 1970, with the purpose of strengthening the national economy, and the mandate to explore, develop and exploit the concessions it holds in the El Callao Gold District, located in the south of Bolívar State<sup>125</sup>. It was nationalized four years after its founding, during the

<sup>125</sup>

<https://desarrollominero.gob.ve/?p=31889#:~:text=%2D%20El%2004%20de%20febrero%20de,trav%C3%A9s%20de%20la%20actividad%20minera.>



first government of Carlos Andrés Pérez, and was attached to the Venezuelan Guayana Corporation (CVG).<sup>126</sup>

Its operational facilities are distributed across three production units: Caratal Plant and Colombia Mine, Revemin Plant and Sosa Méndez Mine, all located in the municipality of El Callao, Bolívar state<sup>127</sup> (Ministry of Ecological Mining Development, n.d.). Minerven is the main company in charge of processing gold in the country and, through its own efforts, reached a production target of 9.5 tons of the mineral in 2025<sup>128</sup>.

However, its institutional history was marked by successive government interventions and accusations of irregularities. In August 2013, the company was taken over by the government of Nicolás Maduro. In March 2015, 100% of its shares were transferred to ENA, a subsidiary of PDVSA, thus ceasing to belong to CVG<sup>129</sup>. In March 2019, the U.S. Treasury Department's Office of Foreign Assets Control (OFAC) sanctioned Minerven and its president for helping the Maduro government stay in power<sup>130</sup>. This accumulation of factors—poor management, international sanctions, and operational deterioration—were some of the antecedents to its absorption by the CVM in March 2026.

### The merger decree

By Presidential Decree No. 5,266, published in Extraordinary Official Gazette No. 6,994 of March 6, 2026, the Venezuelan Executive ordered the merger by absorption of the Corporación Venezolana de Minería (CVM) with the Compañía General de Minería de Venezuela (Minerven). CVM continues as the absorbing company, integrating all of Minerven's assets and liabilities in a transaction that seeks to centralize and optimize the management of the State's mining assets. The decree grants CVM a 30-day period to make the necessary organizational adjustments, particularly regarding human resources<sup>131</sup>. Also, by Presidential Decree No. 5,267, Héctor José Silva Hernández is appointed as the president of the Venezuelan Mining Corporation in an acting capacity.

### The extinction of Minerven and its institutional implications

With this measure, CVG Minerven is formally dissolved, transferring all of its assets, liabilities, rights, and obligations to CVM, which will act as the surviving entity. The decision also has a significant political dimension: under Decree No. 5,266, Minerven is also removed from the group of companies affiliated with the Corporación Venezolana de Guyana (CVG), meaning that CVM will assume all the assets, liabilities, property, and obligations that belonged to the state-owned mining company. This change stems from a severe assessment of Minerven's previous performance.

In this context, the mayor of El Callao, Coromoto Lugo, recalled that, after years of mismanagement, Minerven's gold production plummeted from 900 kg to just 80 kg per month. He

<sup>126</sup><https://es.scribd.com/document/710609381/CVG-Minerven>

<sup>127</sup>[https://desarrollominero.gob.ve/?page\\_id=58222](https://desarrollominero.gob.ve/?page_id=58222)

<sup>128</sup><https://desarrollominero.gob.ve/?p=67167>

<sup>129</sup><https://share.google/FxUdeNqhOCDP9wbFp>

<sup>130</sup><https://home.treasury.gov/news/press-releases/sm631>

<sup>131</sup><https://www.bancaynegocios.com/en-gaceta-oficial-extraordinaria-ordenan-la-fusion-de-la-corporacion-venezolana-de-mineria-con-minerven/>



emphasized the need to separate field engineering from commercial policy to prevent mineral leakage and inefficiency<sup>132</sup>. Callao produces 70% of the nation's gold, yet suffers a complete collapse of public services, a contradiction the merger seeks to begin resolving. Furthermore, this acquisition is expected to mark the end of a monopolistic period and inherently generate a restructuring and recovery of production, while also addressing the social emergency in southern Bolívar state.

On the other hand, beyond gold mining management, the merger reinforces the structural role of the Corporación Venezolana de Minería (CVM) within the legal framework of the Arco Minero del Orinoco. In accordance with the current model of mixed enterprises, the effective ownership and representation of the shares of the Bolivarian Republic of Venezuela in the CVM corresponds to the Ministerio del Poder Popular de Desarrollo Minero Ecológico e Industrias Básicas. This establishes CVM as one of the necessary state interlocutors for the entry of any foreign company wishing to participate in the Arco Minero del Orinoco concessions, including the coltan, cassiterite, and rare earth projects described in the previous section.

#### CVM – Minerven Merger: Timeline and Implications for India

Sources: Presidential Decree No. 5,266 · Extraordinary Official Gazette No. 6,994

| 1970<br>▼<br>Founding of<br>Minerven                                                                              | 2012 – 2019<br>▼<br>Institutional<br>Deterioration                                                                                                           | 2025<br>▼<br>Partial<br>Production                                                                                                                            | Mar 6, 2026<br>▼<br>Merger by<br>Absorption                                                                                                                                       | Post-2026<br>▼<br>Implications for<br>India                                                                                                                                   |
|-------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Established as a mixed company for the El Callao Gold District (Bolívar). Later nationalized and attached to CVG. | Government takeover (2013). Transfer to ENA/PDVSA (2015). OFAC sanctions on Minerven and its president (2019). Production: from 900 kg/month to 80 kg/month. | Minerven reaches a target of 9.5 t of gold through its own efforts. El Callao generates 70% of national gold despite persistent public service deterioration. | Decree No. 5,266. Minerven dissolved. CVM absorbs all assets, liabilities, rights, and concessions. Minerven exits the CVG group. New CVM president: Héctor José Silva Hernández. | CVM as sole interlocutor. Removes Minerven's OFAC burden. Centralized access to coltan, cassiterite and rare earths in the AMO. Window for India–CVM JV under new Mining Law. |

Sources: Presidential Decree No. 5,266 · Extraordinary Official Gazette No. 6,994 · Own Elaboration

<sup>132</sup><https://eldiariodeguayana.com.ve/coromoto-lugo-el-oro-debe-llegar-al-pueblo-no-solo-al-estado/>



| Opportunities Opened by the Merger                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Risks and Cautionary Factors                                                                                                                                                                                                                                                                                                                                              |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>• Reduction of institutional fragmentation: a single interlocutor for non-gold AMO concessions.</li><li>• India diversification: access to coltan, cassiterite, and rare earths under a single entity.</li><li>• Elimination of Minerven's direct OFAC burden on third-party operations.</li><li>• Streamlining of bilateral agreements and joint ventures (India–Venezuela Joint Committee).</li><li>• 30-year concessions available under the Organic Mining Law currently under approval.</li></ul> | <ul style="list-style-type: none"><li>• Historical operational instability of the assets absorbed from Minerven.</li><li>• Prior OFAC sanctions on Minerven may generate residual reputational risk.</li><li>• El Callao: public service collapse persists.</li><li>• Dependence on the political will of the newly appointed CVM president (Decree No. 5,267).</li></ul> |

### Strategic implications for Indian investment

The CVM-Minerven merger facilitates negotiated and centralized access to concessions by reducing institutional fragmentation and eliminating intermediaries like Minerven, which could expedite bilateral agreements or joint ventures with Indian investors. Furthermore, it strengthens Venezuela's economic diversification beyond oil, aligning with Venezuela's expressed interest in November 2025 in attracting Indian investment in critical minerals (nickel, lithium, rare earth elements) for exploration and processing collaboration<sup>133</sup>.

On the other hand, the acquisition offers India an opportunity to diversify its supply sources of essential minerals for batteries, electric vehicles, and clean technologies, reducing dependence on dominant suppliers, in a context of growing bilateral interest reactivating mechanisms such as the India-Venezuela Joint Committee<sup>134</sup>.

Furthermore, the announced opening of the mining sector to foreign investors, including critical minerals such as lithium, nickel, cobalt, and rare earth elements, is complemented by ongoing legislative reforms—such as the expansion of the Mining Law to incorporate hydrocarbon models and extend concessions to 30 years—creating a more attractive environment for foreign capital within the framework of the state mining restructuring<sup>135</sup>.

Finally, it should be noted that risks persist: previous international sanctions (such as those imposed by OFAC on Minerven), historical operational instability, and challenges in the Arco Minero del Orinoco could affect the viability and security of investments in the medium term, despite recent legislative reforms to attract foreign capital.

<sup>133</sup> <https://www.pib.gov.in/PressReleasePage.aspx?PRID=2190279&reg=3&lang=2>

<sup>134</sup> <https://economictimes.indiatimes.com/news/economy/foreign-trade/venezuela-keen-to-increase-cooperation-in-critical-minerals-sector-with-india/articleshow/125346043.cms?from=mdr>

<sup>135</sup> <https://www.jornada.com.mx/2026/03/05/mundo/024n1mun>



## Siderúrgica del Orinoco (SIDOR): Current Operational Scenario

### Production at an all-time low

The most recent data on SIDOR presents one of the most severe cases of deindustrialization documented in the Latin American metalworking sector. The company closed 2025 with a production of 41,000 tons of liquid steel, representing an operating rate of just 1% for the entire year. Ironically, this same production corresponded to only 11 working days in 2007, when the company operated at 88% of its installed capacity of 5.1 million tons<sup>136</sup>.

The causes of SIDOR's collapse are multiple and mutually reinforcing. When the company operates with its six electric arc furnaces running —four in the slab steelmaking plant and two in the billet steelmaking plant— it consumes, along with its other 18 plants, between 750 and 800 megawatts of power<sup>137</sup>. At the end of 2009, when electricity rationing began, 2010 started with only 290 megawatts allocated, which allowed only one and a half of the six available ovens to operate<sup>138</sup>. This energy restriction, coupled with mismanagement and disinvestment, produced a spiral of deterioration impossible to reverse without external capital.

SIDOR's installed capacity is 5,100,000 metric tons of liquid steel per year. Since its nationalization in 2008, production has steadily declined: In 2017, it fell to 309,000 tons, close to 10% of its capacity<sup>139</sup>; in 2022, production was 280,000 tons (5.6% of capacity)<sup>140</sup>; and by 2025 it had fallen even further to the aforementioned 41,000 tons, thus closing a free fall curve of almost two decades.

### Revitalization potential: the "green steel" argument

Despite its deteriorating condition, SIDOR's potential as a global strategic asset remains highly significant. Venezuela possesses, in a single location, all the necessary conditions to produce the world's greenest steel at one of the most competitive production costs on the international market. Three elements make this possible: deposits of high-quality minerals, the hydroelectric power of the Caroní River, and low-cost natural gas. Its production does not depend on coal and coke as fuels, as it utilizes electric arc furnaces and direct reduction in its processes; consequently, the amount of CO<sub>2</sub> emitted per ton of steel does not exceed 800 kilograms<sup>141</sup>.

Estimates indicate that this potential could be realized within five years with an investment of \$5 billion, if political conditions change and the state-run management model of the industry is modified so that the private sector takes the reins of the process<sup>142</sup>. In comparative cost terms, studies by Palogrande Casa de Bolsa estimate that SIDOR could produce steel at less than \$300 per ton, compared to a global average of between \$500 and \$600 depending on the energy input used.

<sup>136</sup><https://correodelcaroni.com/laboral-economia/analisis-de-una-empresa-desmantelada-sidor-produjo-en-2025-lo-que-antes-hacia-en-11-dias/>

<sup>137</sup> <https://cronica.uno/sidor-cerro-2025-con-una-produccion-de- apenas-1-de-su-capacidad-instalada/>

<sup>138</sup><https://correodelcaroni.com/laboral-economia/analisis-de-una-empresa-desmantelada-sidor-produjo-en-2025-lo-que-antes-hacia-en-11-dias/>

<sup>139</sup><https://share.google/aKYTrjtLvLcVsdpQ>

<sup>140</sup><https://laverdad.com/aseguran-que-produccion-de-sidor-de-2022-se-obtenia-en-22-dias-en-2007/>

<sup>141</sup><https://www.bancaynegocios.com/acero-hierro-sidor-palogrande/>

<sup>142</sup>Ibid.



## SIDOR — M&amp;A Scenario for Indian Capital

|                                                          |                                                         |                                                            |                                                                     |                                                                          |
|----------------------------------------------------------|---------------------------------------------------------|------------------------------------------------------------|---------------------------------------------------------------------|--------------------------------------------------------------------------|
| Installed capacity<br><b>5.1 Mt/year</b><br>liquid steel | 2025<br>Production<br><b>41,000 t</b><br>1% of capacity | Required<br>investment<br><b>\$5,000 M</b><br>over 5 years | Potential prod. cost<br><b>&lt;\$300/t</b><br>vs. \$500–600 global. | Carbon footprint<br><b>&lt;800 kg CO<sub>2</sub></b><br>per ton of steel |
|----------------------------------------------------------|---------------------------------------------------------|------------------------------------------------------------|---------------------------------------------------------------------|--------------------------------------------------------------------------|

**Sources:** Own elaboration, 2026. Based on cross-referenced data from specialized sources.

| The Green Steel Argument                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Recommended Strategic Decision for India                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Venezuela possesses, in a single location, all the elements to produce the world's most competitively priced <b>green steel</b>:</p> <ol style="list-style-type: none"> <li>① High-quality iron deposits (Cerro Bolívar, Cerro del Pao).</li> <li>② Hydroelectric power of the Caroní River (carbon-free energy).</li> <li>③ Low-cost natural gas as direct reductant (no coal or coke).</li> <li>④ Electric arc furnaces and direct reduction (DRI) → &lt;800 kg CO<sub>2</sub>/t.</li> </ol> <p>In the context of the global energy transition and growing demand for certified "<b>green steel</b>", SIDOR positions Venezuela —and whichever investor controls the asset— in a structural long-term competitive advantage.</p> | <p><b>Majority private JV or acquisition of SIDOR under the new 2026 legal framework</b></p> <p><b>Reactivation plan: \$5,000 M over 5 years.</b></p> <p><b>Viability conditions:</b></p> <ul style="list-style-type: none"> <li>• Change of management model (private sector as operator).</li> <li>• Stabilization of electricity supply (750–800 MW required).</li> <li>• Consolidation of the new Organic Mining Law for international arbitration.</li> <li>• Monitoring of the political context as activator/blocker.</li> </ul> <p><b>Entry opportunity:</b> M&amp;A window available today. Deferring 24 months increases the risk of another capital bloc (Chinese, European) occupying the position.</p> |

**Sources:** Own elaboration, 2026. Based on cross-referenced data from specialized sources.

### The new legislative framework as a lever for attracting capital

Venezuela's National Assembly approved the Organic Mining Law Bill in its first reading, a reform that replaces the entire legal framework of the mining sector and opens the door to foreign investment in gold, diamonds, and rare earth elements. The bill repeals the 1999 Ley de Minas and the 2015 gold mining regulations; extends concessions from 20 to 30 years; allows national and foreign companies to directly exploit deposits; and establishes that disputes will be resolved through international arbitration, a guarantee that private investors have been demanding for years<sup>143</sup>.

Among the new instruments proposed are the creation of the Superintendencia Nacional de la Actividad Minera as a regulatory body, a Mining Social Fund to protect the social security of

<sup>143</sup><https://www.infobae.com/venezuela/2026/03/10/venezuela-abrio-el-mercado-minero-al-capital-extranjero-con-una-reforma-impulsada-por-washington/>



workers in the sector, and a Mining Geoscientific Data Bank to centralize technical information on subsurface resources<sup>144</sup>.

The reform also raises the possibility that private companies—both national and foreign—can participate directly in exploration and exploitation through joint ventures or long-term concessions, following the logic of the recent hydrocarbon sector reform enacted at the end of January 2026<sup>145</sup>.

<sup>144</sup><https://rnv.gob.ve/mayoria-calificada-aprueba-en-primera-discusion-el-proyecto-de-ley-organica-de-minas/>

<sup>145</sup><https://crhoy.com/mundo/reforma-minera-en-venezuela-que-propone-y-por-que-despierta-interes-en-ee-uu/>



# PART V

## LEGAL STABILITY AND RESTRUCTURING PROCEDURE OF REGULATIONS



## PART V

### LEGAL STABILITY AND RESTRUCTURING PROCEDURE OF REGULATIONS

Under the direction of the National Executive and the implementation of the Bolivarian Economic Agenda, the country has established an institutional and legal framework —headed by the Anti-Blockade Constitutional Law<sup>146</sup> (Gaceta Oficial N° 6.583 Extraordinario, October 12, 2020) and the “Ley Orgánica de las Zonas Económicas Especiales”<sup>147</sup> (Gaceta Oficial N° 6.710 Extraordinario, July 20, 2022)— intended to attract foreign direct investment in a context of international restrictions.

The new fundamental pillar of this transformation is the Ley Orgánica de Minas draft<sup>148</sup>, approved in first reading by the National Assembly on March 9, 2026<sup>149</sup>. Its purpose is to modernize the sector, eliminating the rigorous control that the State has exercised in recent decades and offer the legal guarantees demanded by multinational corporations. Among the most notable reforms is the extension of mining concessions to 20 years<sup>150</sup>—with the possibility of extending its duration for an additional decade—, and the incorporation of alternative arbitration into the competent courts of the Republic as a mechanism for the resolution of disputes, as an essential condition for inspiring investor confidence.

Although the subsoil remains state property, the project significantly expands private participation and makes operating schemes more flexible, allowing exploration and mining activities under state authorization<sup>151</sup>. In that sense, the State would maintain regulatory functions and would persistencies such as joint ventures, where the State could have a minority or equal stake<sup>152</sup>. This approach is similar to the recent opening of the oil sector, where the operational autonomy of private actors has increased.

Furthermore, under the “Ley Constitucional de Inversión Extranjera Productiva” (Gaceta Oficial N° 41.310, december 29th, 2017)<sup>153</sup>, which acts as a complementary framework, establishes clear rights for the remittance of profits and capital but also strict conditions of responsible business conduct and contribution to national development.

#### Legal Impact Table for the Investor

Venezuelan regulatory framework applicable to foreign investment in the mining sector

#### REGULATORY ANALYSIS · EMBASSY OF INDIA IN CARACAS

| Legal Provision | Mechanism Description | Impact for the Investor |
|-----------------|-----------------------|-------------------------|
|-----------------|-----------------------|-------------------------|

<sup>146</sup><http://www.vuce.gob.ve/wp-content/uploads/2023/05/Ley-Antibloqueo-Y-CENTRO-INTERNACIONAL-DE-INVERSION-PRODUCTIVA.pdf>

<sup>147</sup><https://www.asambleanacional.gob.ve/leyes/sancionadas/ley-organica-de-zonas-economicas-especiales-lozee>

<sup>148</sup> <https://iusdata.com/wp-content/uploads/2026/03/Proyecto-LEY-ORGANICA-MINAS-MAR26.pdf>

<sup>149</sup><https://www.asambleanacional.gob.ve/noticias/an-aprueba-en-primera-discusion-ley-organica-de-minas>

<sup>150</sup><https://politicaminera.com/post/la-nueva-ley-de-minas-venezolana-un-traje-a-la-medida-de-los-intereses-de-w?utm>

<sup>151</sup> <https://share.google/I6UIPaThLDpDQEYb>

<sup>152</sup> Ibid.

<sup>153</sup><https://www.asambleanacional.gob.ve/storage/documentos/leyes/ley-constitucional-de-inversion-extranjera-productiva-2020215152559.pdf>



|                                                                                                                                                                                                                                                                                                                      |                                                                                                                                            |                                                                                                                                                                                                                       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Art. 18</b><br><b>(Investment Law)<sup>154</sup></b><br><b>Fresh Capital</b>                                                                                                                                                                                                                                      | Internal financing limited to 15% of the total investment.                                                                                 | Requires the inflow of fresh capital and foreign currency from abroad.                                                                                                                                                |
| <b>Art. 26</b><br><b>(Investment Law)</b><br><b>Minimum Residency</b>                                                                                                                                                                                                                                                | Minimum capital residency of two (2) years before the first profit remittance.                                                             | Designed to prevent short-term speculative capital in the mining sector.                                                                                                                                              |
| <b>Art. 29</b><br><b>(Investment Law)</b><br><b>Settlement in Foreign Currency</b>                                                                                                                                                                                                                                   | Companies obtaining more than 70% of their income from traditional and mining exports must settle their taxes in foreign currency.         | Ensures stable fiscal revenues for the State in hard currency.                                                                                                                                                        |
| <b>Art. 30</b><br><b>(Investment Law)</b><br><b>Reinvestment in BsF</b>                                                                                                                                                                                                                                              | Right to remit 100% or partially the investment in national currency for purposes of being considered as foreign investment.               | By reinvesting in national currency, profits are officially considered foreign investment, which may offer fiscal and legal benefits.                                                                                 |
| <b>SEZ Decree</b><br><b>(La Guaira and</b><br><b>Paraguaná,</b><br><b>Falcón)<sup>155</sup></b><br><b>ISLR Refund</b>                                                                                                                                                                                                | Allows the refund of up to 100% of Income Tax (ISLR) during the first 4 years, provided that export levels exceed 60% of production.       | The possibility of an ISLR refund can improve investment profitability, although it is crucial to assess the associated risks.                                                                                        |
| <b>2026 Reform</b><br><b>(Mining Law)<sup>156</sup></b><br><b>International Arbitration</b>                                                                                                                                                                                                                          | Inclusion of mediation and alternative arbitration in mining contracts.                                                                    | Increases the credit rating of projects and attracts bank financing.                                                                                                                                                  |
| <b>2026 Reform</b><br><b>(Mining Law)<sup>157</sup></b><br><b>Fiscal Dollarization</b>                                                                                                                                                                                                                               | Imposes dollarization on taxes and exempts investors from paying parafiscal contributions and levies to regional or municipal governments. | Eliminates "exchange rate risk" on State obligations and improves net profit margins. The investor can pay taxes with the same foreign currency cash flow, avoiding losses from official exchange rate differentials. |
| <b>Source:</b> Own elaboration based on <i>Ley Constitucional de Inversión Extranjera Productiva</i> (2017), <i>Decretos</i> No. 4.838, 4.839, 4.840 and 4.841 (2023) <sup>158</sup> , <i>Ley Orgánica de las Zonas Económicas Especiales</i> (2022) y and the project of: " <i>Ley Orgánica de Minería</i> (2026)". |                                                                                                                                            |                                                                                                                                                                                                                       |

<sup>154</sup> <https://www.asambleanacional.gob.ve/leyes/sancionadas/ley-constitucional-de-inversion-extranjera-productiva>

<sup>155</sup> <https://share.google/2zEVop6sYQrgHYpxT>

<sup>156</sup> <https://www.asambleanacional.gob.ve/noticias/an-aprueba-en-primera-discusion-ley-organica-de-minas>

<sup>157</sup> <https://bitacoraeconomica.com/ley-de-minas-impone-la-dolarizacion-en-impuestos/>

<sup>158</sup>

[https://insightplus.bakermckenzie.com/bm/attachment\\_dw.action?attkey=FRbANEucS95NMLRN47z%2BeeOgEFct8EGQJswJiCH2WAWuU9AaVDeFguAYnPfntn61&nav=FRbANEucS95NMLRN47z%2BeeOgEFct8EGQJswJiCH2WAWuU9AaVDeFguAYnPfntn61&fromContentView=1](https://insightplus.bakermckenzie.com/bm/attachment_dw.action?attkey=FRbANEucS95NMLRN47z%2BeeOgEFct8EGQJswJiCH2WAWuU9AaVDeFguAYnPfntn61&nav=FRbANEucS95NMLRN47z%2BeeOgEFct8EGQJswJiCH2WAWuU9AaVDeFguAYnPfntn61&fromContentView=1)



Thus, the new regulatory framework modernizes and complements the existing regime (including the Anti-Blockade Law, which remains in force), introducing a more transparent system of mining registries and environmental audits, with public consultations already carried out with workers in the sector and planned before the second discussion.

### Special Economic Zones (SEZs) and the optimization of tariff and tax benefits

The SEZs complement the Organic Mining Bill by allowing the industrial processing of minerals for export, enabling an in-situ processing strategy (local beneficiation and refining in facilities within the ZEE). This involves extracting critical minerals (lithium, coltan, nickel) in areas such as the Arco Minero del Orinoco and transporting them to plants in coastal EEZs to add value (concentrates or precursors) before exporting, optimizing tax and tariff incentives.

Key incentives: (Decrees No. 4,838-4,841<sup>159</sup>, Gaceta Oficial N° 6.756 Extraordinaria<sup>160</sup>, 10/08/2023):

1. 100% refund of ISLR during the first 4 years (conditional on exports >60% of production from year 5 onwards).
2. Exemption or reimbursement of tariffs on the import of machinery, equipment and inputs for production processes oriented towards export (up to 10 years).
3. Accelerated depreciation of assets and preferential logistics rates.

### Impact on investors

It reduces technology import costs, improves profitability through tax exemptions, and facilitates compliance with the external fresh capital requirement. Locating processing plants in Special Economic Zones (SEZs) is recommended to maximize these benefits for critical minerals with high global demand. In parallel, this regulatory modernization is complemented by significant changes in the area of international sanctions. On March 6, 2026, the U.S. Department of the Treasury's Office of Foreign Assets Control (OFAC) issued General License 51<sup>161</sup>, which authorizes US companies to conduct transactions, purchase and transport of gold of Venezuelan origin.

Finally, in order for a foreign company to structure its entry under this regulatory framework, it must contribute a minimum of 85% of its capital from abroad (Art. 18 Investment Law)<sup>162</sup>. It is recommended to focus investment in a Special Economic Zone to optimize tariff and tax benefits. Furthermore, in the joint venture agreement it is advisable to include mediation and arbitration clauses (including international or independent arbitration, according to ministerial guidelines) permitted by Article 9 of the "Ley Orgánica de Minas" draft<sup>163</sup>, since these mechanisms are expressly intended to strengthen legal certainty and attract foreign investment.

<sup>159</sup><https://share.google/ko6zeI6DNMc7nLhGM>

<sup>160</sup><https://share.google/XvtVbvcMKoXyEqxAp>

<sup>161</sup><https://www.dw.com/es/parlamento-de-venezuela-aprueba-ley-de-minas-en-primer-debate/a-76284643>

<sup>162</sup><https://www.asambleanacional.gob.ve/leyes/sancionadas/ley-constitucional-de-inversion-extranjera-productiva>

<sup>163</sup><https://share.google/VGl2kjp1HaspmC3g4>



# PART VI

## PAYMENT MANAGEMENT AND CROSS-BORDER FINANCIAL ARCHITECTURE IN THE MINING SECTOR



## PART VI

### PAYMENT MANAGEMENT AND CROSS-BORDER FINANCIAL ARCHITECTURE IN THE MINING SECTOR

The laxity of OFAC licensing in itself facilitates international financial flows for the Venezuelan mining sector; however, India possesses strategic financial infrastructure that could be adopted by the sector. In this regard, the signing of a comprehensive agreement to deploy pilot projects integrating India's Digital Public Infrastructure (DPI)—particularly the Aadhaar identity system and the Unified Payments Interface (UPI) instant transfer system—into the Venezuelan economic fabric is a significant contribution<sup>164</sup>. The UPI system is managed by the National Payments Corporation of India (NPCI) and was endorsed by the IMF as the relevant retail rapid payment system<sup>165</sup>. A system of this nature, capable of linking operational settlements and remittances expeditiously without traditional reliance on the SWIFT system, could establish direct Rupee-Bolivar conversion mechanisms or institutionalize settlements in Asian currencies. This would reduce financial operational delays from weeks to milliseconds and mitigate interbank commission costs.

Since 2022 and maturing towards our 2026 horizon, the Reserve Bank of India (RBI) implemented the Special Rupee Vostro Accounts (SRVA) system<sup>166</sup>. This allows a Venezuelan bank to open an account directly with an Indian bank. The capital for the mining joint venture and the payment for the exported ore is settled entirely in Indian rupees (INR) or through valued barter (barter trade). By not using US dollars, the transaction does not go through correspondent banks in New York and does not require SWIFT messaging, which mitigates exposure to the risk of a change in OFAC considerations, even with some degree of exposure to secondary sanctions<sup>167</sup>.

| Comparative Flowchart of Payment Management and Cross-Border Financial Architecture |                                          |                                                     |
|-------------------------------------------------------------------------------------|------------------------------------------|-----------------------------------------------------|
| SETTLEMENT ROUTE ANALYSIS                                                           |                                          |                                                     |
| Flow Stage                                                                          | Route 1<br>Traditional Model · High Risk | Route 2<br>Indian Strategic Model · Risk Mitigation |
| Step 1<br>Initial Transaction                                                       | Venezuelan mineral export<br>▼           | Venezuelan mineral export<br>▼                      |

<sup>164</sup><https://indiasworld.in/current-affair/india-venezuela-explore-cooperation-in-digital-public-infrastructureai/#:~:text=India%2C%20Venezuela%20explore%20cooperation%20in%20Digital%20Public%20Infrastructure%2C%20AI,What%20happened> and <https://www.fii.gob.ve/venezuela-e-india-consolidan-agenda-de-cooperacion-para-el-gobierno-digital/#:~:text=Venezuela%20e%20India%20consolidan%20agenda%20de%20cooperaci%C3%B3n,impulsar%20el%20Gobierno%20Digital%20en%20el%20pa%C3%ADs>

<sup>165</sup> <https://www.imf.org/-/media/files/publications/wp/2023/english/wpiea2023078-print-pdf.pdf>

<sup>166</sup> <https://es.marketscreener.com/noticias/el-banco-central-de-india-autoriza-a-cuentas-vostro-a-invertir-todo-su-excedente-en-bonos-del-gobi-ce7e51dad8ff627> and <https://m.economictimes.com/news/economy/policy/rbi-tweaks-procedure-for-opening-special-rupee-vostro-accounts/articleshow/123121950.cms#:~:text=The%20Reserve%20Bank%20of%20India,trade%20transactions%20in%20Indian%20rupees.&text=The%20RBI%20on%20Tuesday%20tweaked,of%20SRVAs%2C%20the%20RBI%20said.>

<sup>167</sup> <https://www.camfkhan.com/meaning-vostro-nostro-and-srva-account-or-selection-for-generating-ebrc-in-dgft-or#:~:text=SRVA%20Account:%20India's%20Trade%20Innovation,IndusInd%20Bank%20%E2%80%93%206%20accounts>



|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                         |                                                                                                                                                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Step 2</b><br>Currency /<br>Instrument                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>US Dollar (USD)</b><br>as mandatory settlement currency<br>▼                                                                         | <b>Indian Rupee (INR)</b><br>or valued barter (Barter Trade)<br>▼                                                                                       |
| <b>Step 3</b><br>Network /<br>Mechanism                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>SWIFT Messaging</b><br>(Society for Worldwide Interbank<br>Financial Telecommunication)<br>▼                                         | <b>Special Rupee Vostro Accounts (SRVA)</b><br>Venezuelan bank opens account directly<br>with Indian bank (RBI, since 2022)<br>▼                        |
| <b>Step 4</b><br>Clearing<br>Node                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>Correspondent Banks in New York</b><br>(direct exposure to the U.S.<br>financial system)<br>▼                                        | <b>India's Digital Public Infrastructure (DPI)</b><br>UPI — Unified Payments Interface (NPCI /<br>endorsed by the IMF)<br>▼                             |
| <b>Operational<br/>Result /<br/>Operational<br/>Consequence</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>Delays of days to weeks · Elevated<br/>interbank fees · Risk of OFAC<br/>secondary sanctions · Exposure to the<br/>USD/NY system</b> | <b>Millisecond settlement · Zero exposure to<br/>New York banks · No SWIFT<br/>messaging · OFAC risk mitigation · Direct<br/>INR–Bolívar conversion</b> |
| <b>Strategic Conclusion</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                         |                                                                                                                                                         |
| <p>The adoption of the UPI system and SRVA accounts represents a decisive competitive advantage for Indian Joint Ventures operating in Venezuela, for three structural reasons. First, it eliminates dependence on the SWIFT system and on correspondent banks in New York, completely decoupling the transaction from OFAC's regulatory jurisdiction. Second, settlement in rupees (INR) or through barter trade allows the JV to operate with a predictable cash flow in Asian currencies, eliminating losses from bolivar exchange rate differentials. Third, the UPI infrastructure —endorsed by the IMF as a global reference rapid payments system— reduces clearing times from days or weeks to milliseconds, lowering the cost of capital tied up in mineral export operations. Taken together, this model positions India as a structurally competitive financial partner for Venezuela in the context of the emerging multipolar architecture.</p> |                                                                                                                                         |                                                                                                                                                         |
| <b>Sources:</b> Own elaboration, 2026. Based on cross-referenced data from specialized sources.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                         |                                                                                                                                                         |



# PART VII

## FINAL CONSIDERATIONS



## PART VII

### FINAL CONSIDERATIONS

The Venezuelan mining sector is gaining particular geopolitical and commercial relevance for the global energy transition and new security paradigms based on advanced technology. Based on the integrated analysis of geological endowment, the corporate ecosystem, the regulatory framework—together with its possible changes—and the available cross-border financial architecture, the overall balance points to the existence of investment potential for external actors with the technical, financial, and diplomatic capacity to operate in environments of institutional readjustment; conditions that India meets in a differentiated manner compared to other global competitors, even more so considering its historical diplomatic proximity to Venezuela.

Venezuelan mining assets, as reflected by their extensive diversity, should not be evaluated uniformly. Instead, they should be considered under a prioritization matrix that weighs immediate technical viability, geological certainty, and exposure to operational risk factors. In this regard, nickel—particularly the lateritic deposits of Loma de Hierro—emerges as the most viable entry asset in the short and medium term: it has over fifty years of extractive history, documented reserves exceeding 28.9 million tons, open-pit mining methodology with low initial capital requirements, and a concession framework recently reactivated through a 25-year contract. This convergence acquires a particular strategic dimension for India, whose expansion of the electric vehicle industry—driven by initiatives such as the FAME program and the national advanced batteries policy—will face a demand for high-purity nickel for lithium-ion cells that can be covered by Venezuela. The adoption of HPAL technology for the production of Mixed Hydroxide Precipitate (MHP) would represent a qualitative leap of high added value that directly aligns Venezuelan production with this supply chain, in a market whose global demand is projected to grow by 800% for the present decade, and in which Indian industrial actors with experience in metallurgical processing—such as JSW Steel or Hindalco—could find favorable entry conditions that ensure their consolidation and primacy in the national market (with an export vocation) in the long term.

Coltan and rare earths constitute, on the other hand, the segment with the greatest structural potential and the highest risk. The absence of certified reserves under international standards, the presence of irregular armed groups, and logistical connectivity limitations constitute frictions that, while not invalidating the attractiveness of the resource, do condition the viability of a short-term investment without a prior phase of quantification of possible deposits and progressive institutionalization (roads, electrification, and security). For India, however, the criticality of these minerals for the defense and microelectronics industry—in a context of growing technological rivalry with China—provides a strategic incentive for assuming initial risk. The first-mover advantage model is relevant for investors willing to finance prospecting and certification campaigns, which would grant them priority positioning in the eventual production and commercialization of these minerals.

Lithium, although present in official discourse since 1987, is in a purely exploratory stage, with no proven reserves or identified operational entities for its exploitation. Its incorporation into



the bilateral agenda should be considered in a medium-to-long-term horizon, conditional on progress in the opening of geoscientific data and the materialization of systematic drilling campaigns; nevertheless, given India's explicit interest in securing lithium sources outside the South American "triangle" dominated by Chinese contracts, the active monitoring of Venezuelan exploratory evolution (which can be concatenated with the exploration of other minerals) represents a low-cost, high-prospective-value action. Gold, in contrast, represents the asset with the highest liquidity and international visibility in the sector, with 79.49 tons extracted in 2025 and a recent regulatory relaxation materialized in OFAC General License 51 (March 2026), significantly reducing the risk of secondary sanctions for corporate actors from third countries. India, as one of the largest global gold demanders and with an active financial sector in the precious metals market, could explore direct commercialization mechanisms under the SRVA account scheme.

Finally, regarding minerals, industrial metals—iron and bauxite—offer opportunities for the rehabilitation of assets with historical productive bases, especially relevant for India with its experience in the steel sector as the world's second-largest steel producer: the prospect of accessing steel produced with a carbon footprint below 800 kg of CO<sub>2</sub> per ton and at estimated costs below 300 dollars —compared to a global average of between 500 and 600 dollars— configures a first-order comparative advantage in the context of industrial decarbonization pressures faced by Indian exports to European and North American markets.

Within this framework, the emerging regulatory architecture opens up a set of concrete possibilities that deserve to be evaluated. In the short term, the structuring of joint ventures for exploitation represents the entry route with the least institutional friction, a path that can be articulated under the “Ley Orgánica de Minas” draft and its guarantees of international arbitration, a project that, it should be noted, is considered likely to come into force. Likewise, the installation of processing plants in Special Economic Zones would allow taking advantage of the 100% ISLR (Income Tax) rebate during the first four years and tariff exemptions for the importation of productive technology necessary for such a task, while the SRVA account system and the UPI infrastructure offer operational settlement mechanisms that reduce exposure to exchange rate and regulatory risk. In the medium-term horizon, the co-financing of prospecting campaigns for coltan and rare earths, participation in the rehabilitation of the CVG complex through the renewable energy enclave model—where Indian experience in hybrid microgrids through Adani Green Energy or Tata Power is directly applicable—and the monitoring (and involvement) in the concession evolution of SIDOR configure additional possibilities whose viability will depend, to a large extent, on the consolidation of the new legislative framework, but whose consolidation could signify a favorable scenario for foreign investments.

Thus, the Venezuelan mining sector is at a regulatory, operational, and geopolitical inflection point unprecedented in the last two decades. The convergence of a structural legislative reform (Ley Orgánica de Minas, 2026), the relaxation of the US sanctions regime, the reorganization of the state corporate ecosystem, and the sustained growth of global demand for critical minerals configure a time-limited window of opportunity. For emerging powers, whose strategy of diversifying supply chains for strategic minerals constitutes a priority, Venezuela represents a vector of insertion with



undeniable geological comparative advantage, real technological complementarity, and, specifically for India, a framework of bilateral relations—reactivated through the India-Venezuela Joint Committee—that grants convenient diplomatic legitimacy for the deepening of the economic link. The materialization of this potential will not be exempt from operational and institutional risks, but the very nature of these risks is precisely what maintains the opportunity to access these assets without the significant competition characteristic of more consolidated markets.