Paraguay, the new horizon in mining

Mining business in Paraguay

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3. Mining industry in Paraguay
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1.Country profile

COUNTRY PROFILE

OFFICIAL NAME
Republic of Paraguay

SURFACE
406,752 km2

PRESIDENT
Santiago Peña (2023-2028)

OFFICIAL LANGUAGES
Spanish and Guarani

URBANIZATION RATE
63%

CAPITAL
Asuncion

GOVERNMENT SYSTEM
Presidential Republic

POPULATION (2022)
7,453,695

LITERACY RATE
95%

CURRENCY
Guarani (PYG)

SOURCES: BCP, DGEEC, Banco Mundial

MAIN ECONOMIC INDICATORS

GROSS DOMESTIC PRODUCT - GDP (2023)
USD 43,389 mill.

GDP GROWTH (2023)
4.5%

INFLATION (2023)
3.7%

EXCHANGE RATE (Feb.2024)
7,280 (Gs./USD)

GROSS DOMESTIC PRODUCT PER CAPITA (2023)
USD 5,743

GDP GROWTH for 2024 (BCP projection, Jan. 2024)
3.8%

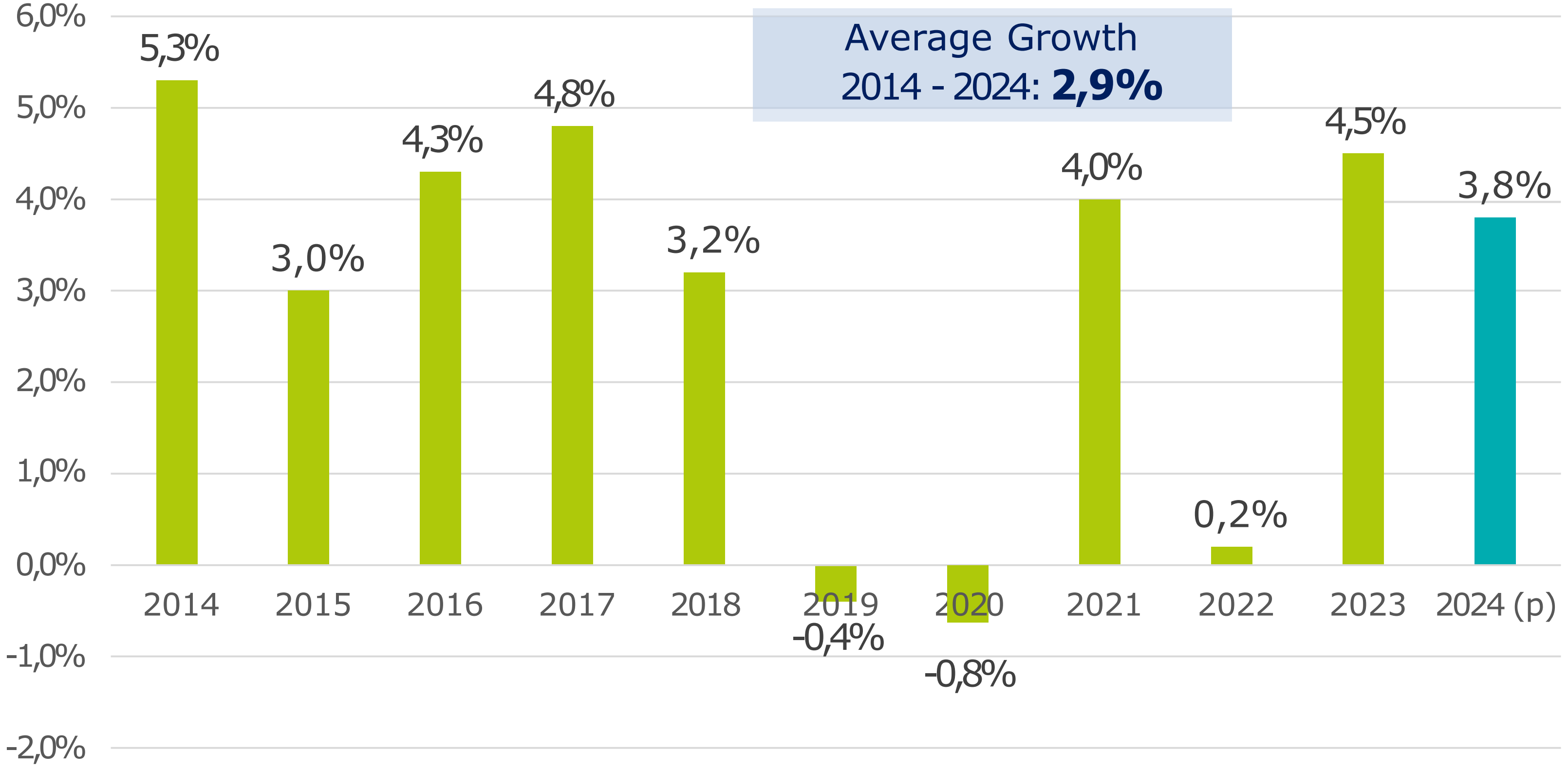
FOREIGN CURRENCY RESERVES (Feb. 2024)
USD 9,592.4 mill.

PUBLIC EXTERNAL DEBT (February, 2024)
USD 14.339 mill. (33% of PIB)

SOURCES: BCP, DGEEC, FMI

2.Why invest in Paraguay?

VARIATION OF PARAGUAYAN GDP



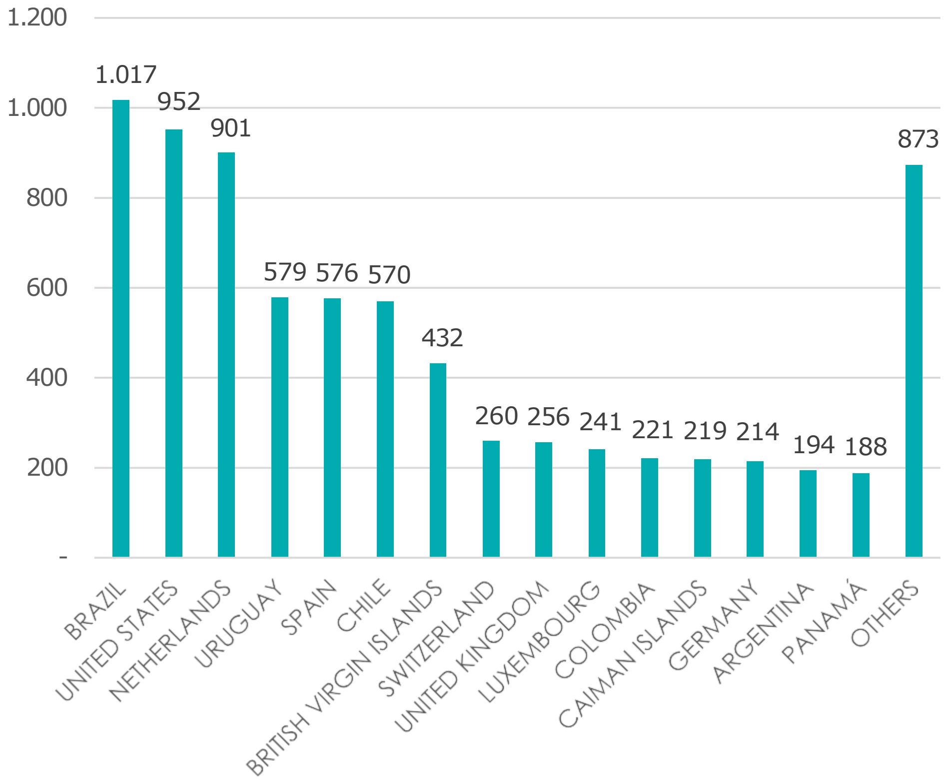
In recent years Paraguay maintained positive average growth, despite the volatility of its main trading partners. In 2020 and 2021, remained as the least affected country in the region by the COVID-19 Pandemic.

SOURCE: BCP – 2023 "BCP projection"

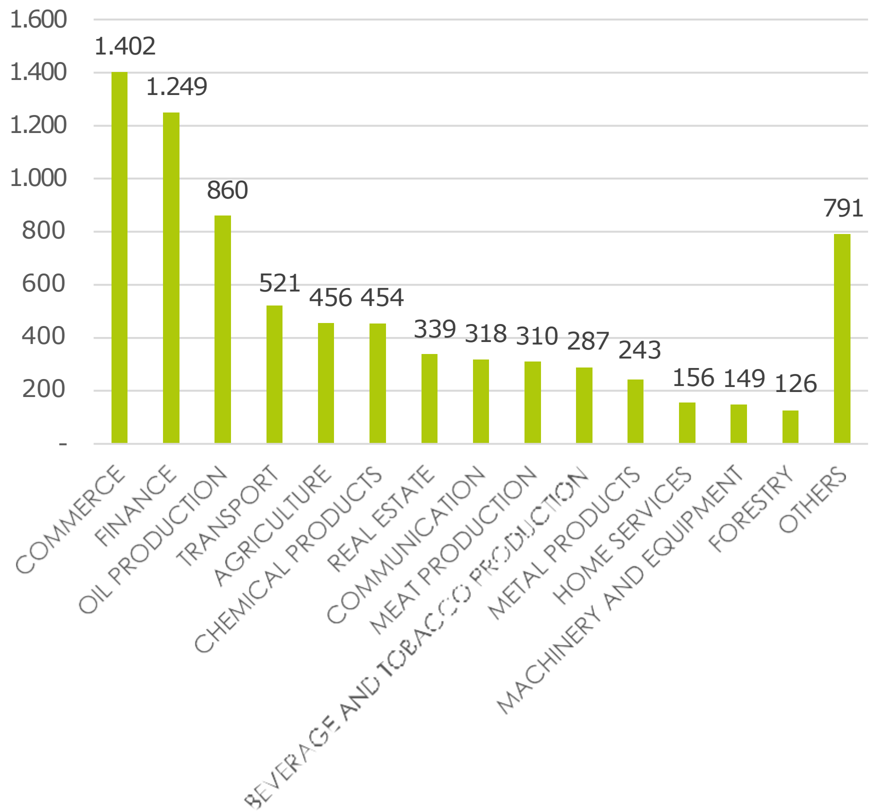
FOREIGN DIRECT INVESTMENT (FDI) COMPOSITION

BALANCE OF FDI IN MILLIONS USD AT THE END OF 2022

MAIN COUNTRIES OF ORIGIN

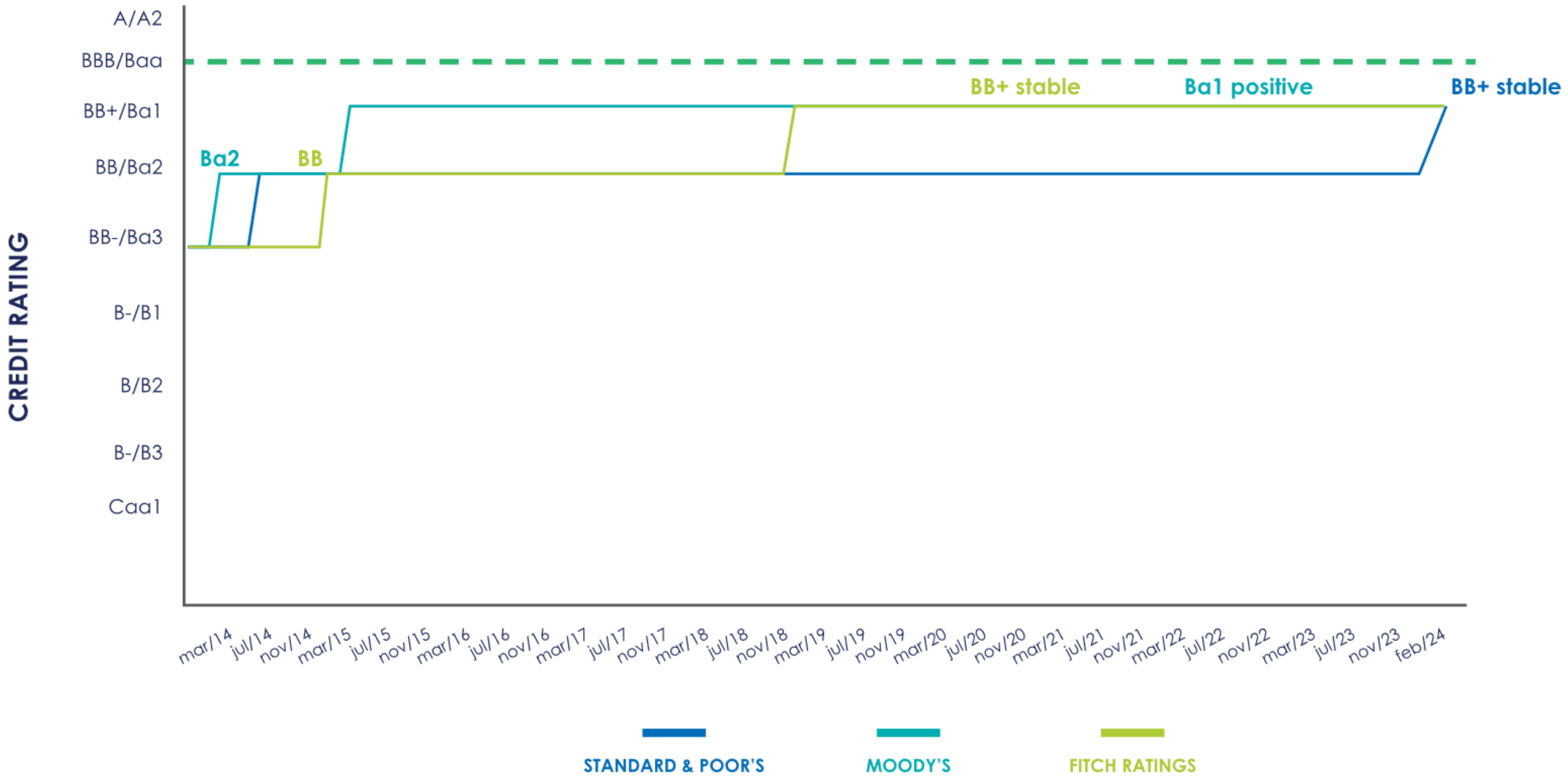


MAIN INVESTMENT SECTORS



SOURCE: BCP

COUNTRY RISK RATING



SOURCES: Standard and Poor's (2024), Moody's (2023), Fitch Ratings (2023)

THE MOST SIMPLE AND COMPETITIVE TAX SCHEME

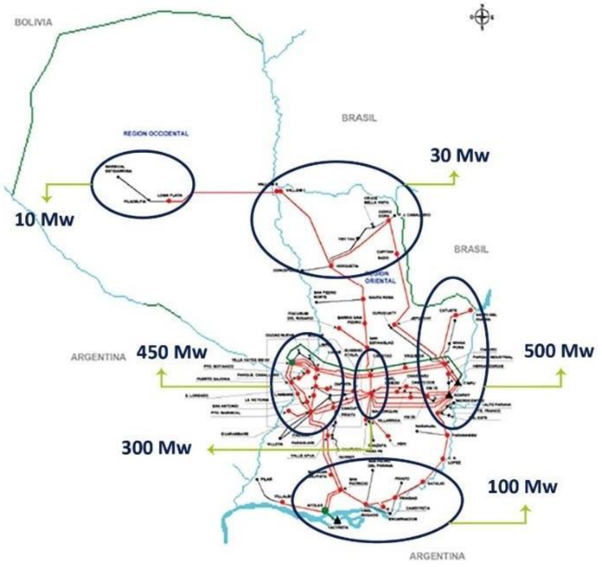
TAXES					
Maximum rate for corporate income tax	10%*	30%	25%	34%	10%
Maximum rate for personal income tax	10%	35%	36%	28%	27%
Common indirect tax rate (e.g. VAT)	10%	21%	22%	17%	19%
Total referential of taxes and social contributions (according to the World Bank)	35%	106%	42%	65%	84%

* In the case of distributing dividends, an additional tax is applied to net income. **8%** when the recipient of the dividends, profits or income is an individual, legal entity or entity resident in the country; or **15%** when the recipient of the dividends, profits or income is an individual, legal entity or entity not resident in the country, including those obtained by the parent company abroad.

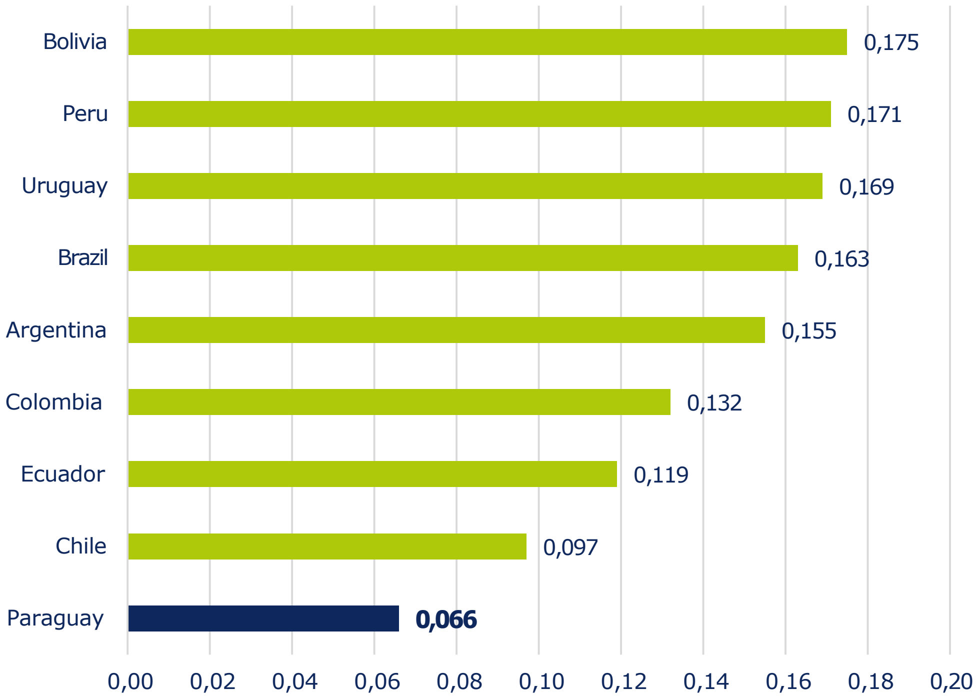
SOURCES: FDI Intelligence, Ministry of Finance

ENERGY

REPUBLIC OF PARAGUAY / ELECTRIC MAP
POTENCY (MVA) 220 KV



COST IN CENTS OF USD PER KWH (2020)
MEDIUM INDUSTRIAL TENSION



The surplus of electricity produced by the Itaipú and Yacyretá hydroelectric plants, corresponding to Paraguay, is exported to Brazil (78%) and Argentina (22%).

With this, Paraguay is one of the largest producers and exporters of renewable energy in the world.

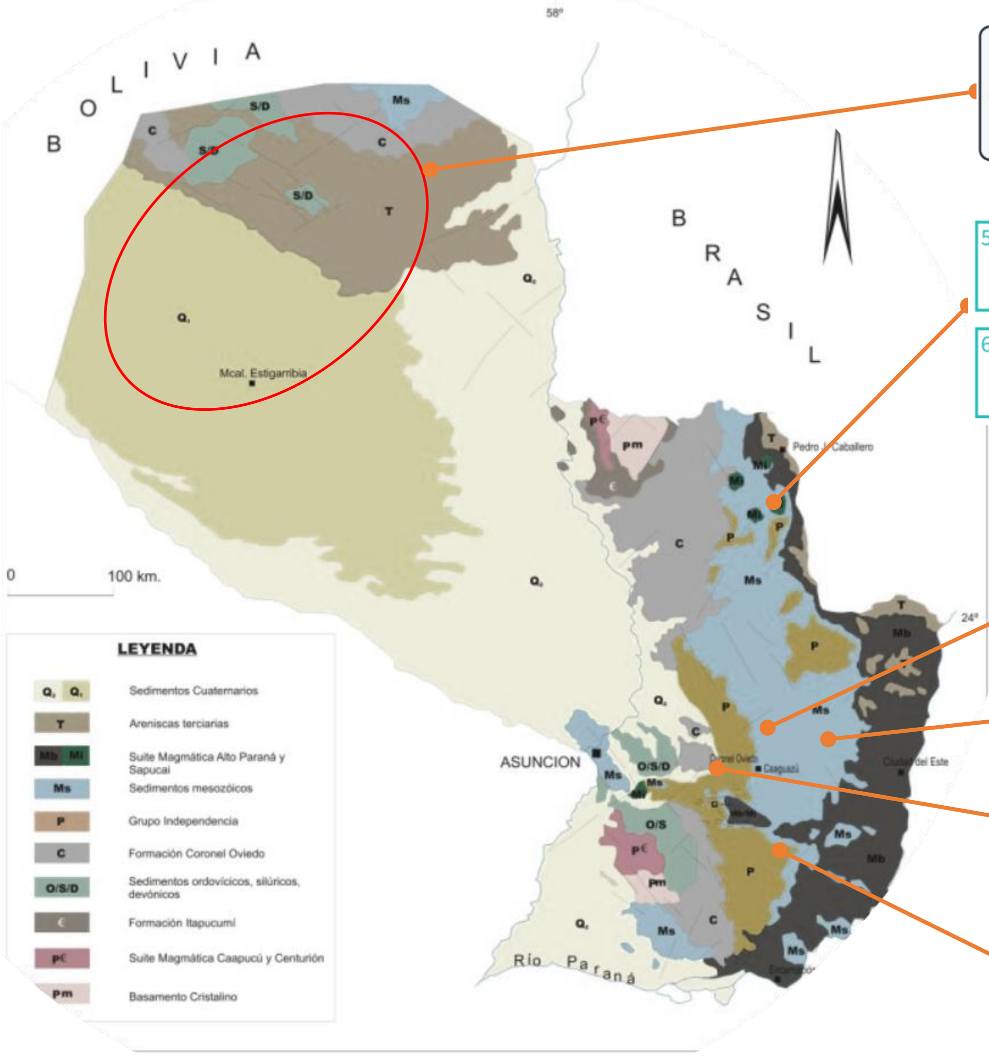
Electric power is currently the second export product in the country.

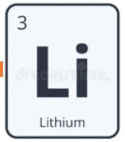
In July 2019, the National Congress approved a new program to strengthen the transmission of electric energy, including two new 500 kV lines, in addition to the expansion and improvement of the distribution system; this will allow full supply of energy for large parts of the national territory.

SOURCES: ANDE, World Bank, FDI Intelligence

3.Mining industry in Paraguay

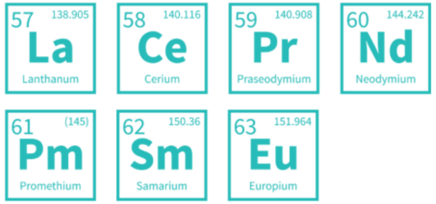
Important Mineral Projects





Lithium

- Early Exploration Stage

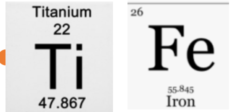


Rare Earths

- Early Exploration Stage

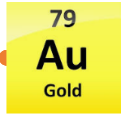
Uranium

- Inferred Resources: 26 M Pounds U_3O_8



Titanium & Pig iron

- 4.94 Billion tonnes (7% TiO_2, 23% Fe)



Gold

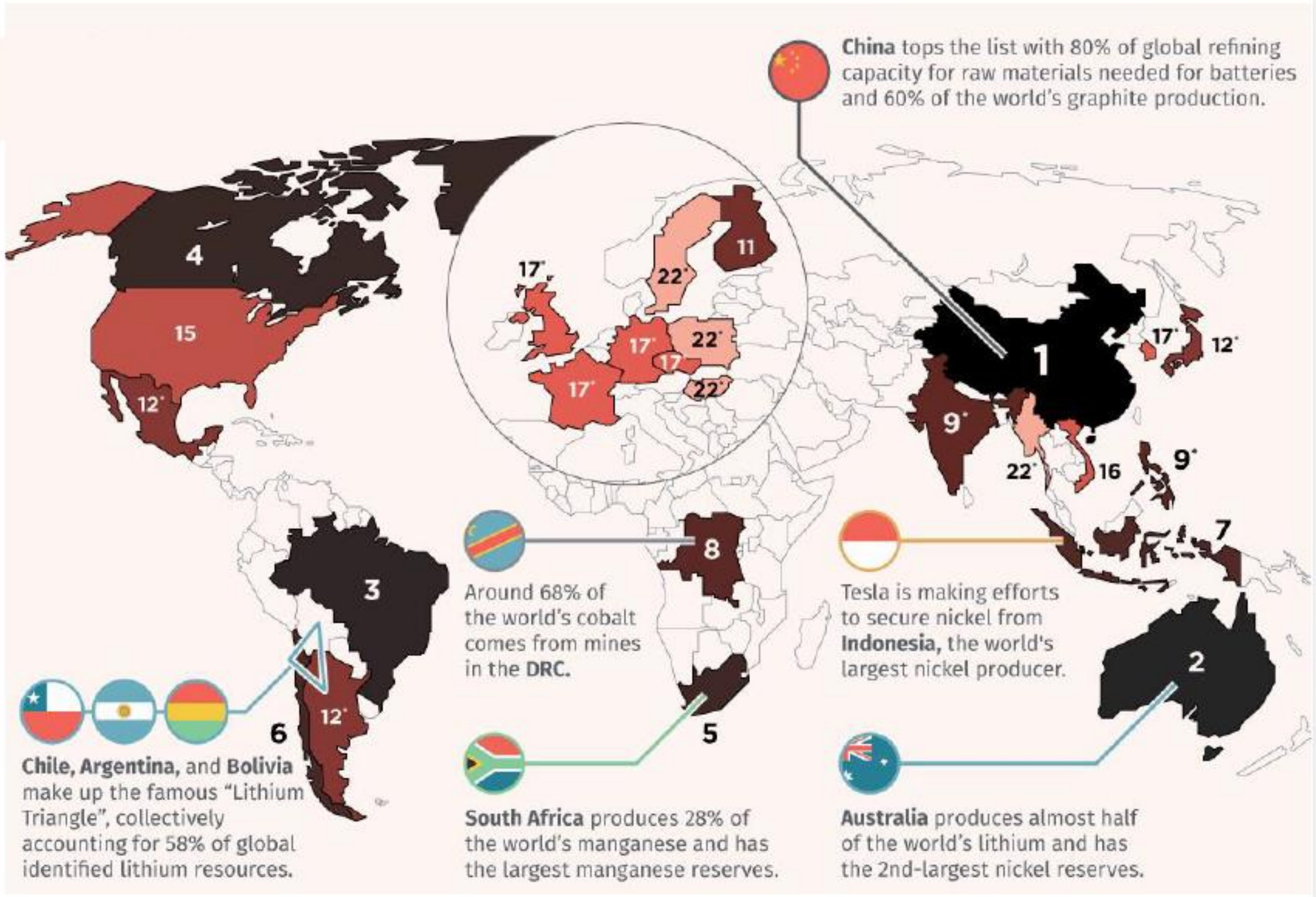
- Production: 200 kg/year (2023)
- Exports & Royalties doubled in 2024

Uranium

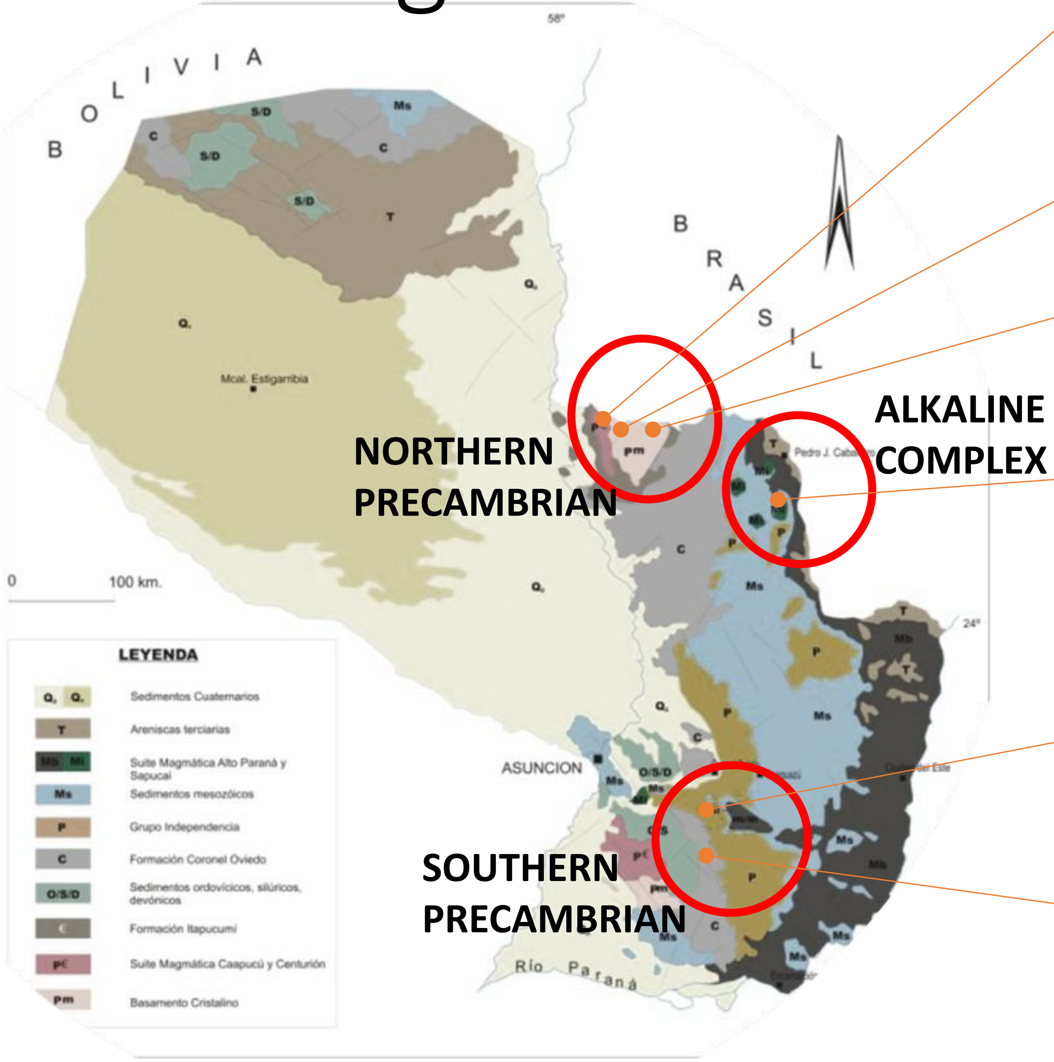
- Certified Resources: 11 M Pounds U_3O_8

Critical minerals in short supply

- The supply of strategic minerals will not be able to satisfy the growing demand required for the energy transition. This crisis is the perfect opportunity to explore the geology and mining of Paraguay.



Mining Potential



Masive Sulphides
Copper, Lead, Zinc y Silver

Mississippi Valley Formation
Lead, Gold, Zinc, Silver y Barium

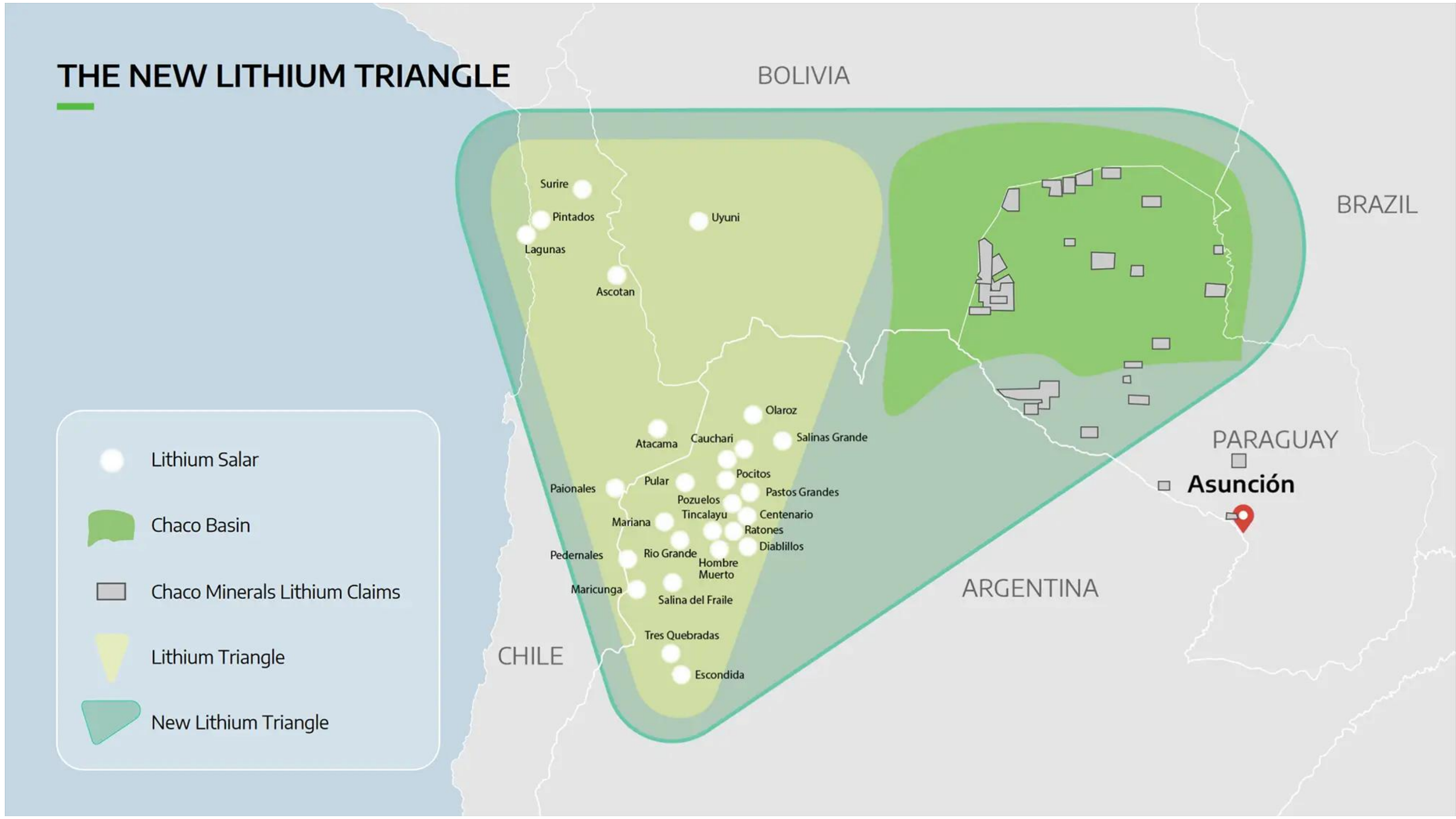
Porphyry formation
Copper, Molybdenum, Tin, Tungsten

Northern Alkaline Complex
Niobium, Rare Earths, Tantalum, Barium, Phosphorous

Masive Sulphides
Gold, Silver, Copper, Zinc, Lead, Lithium

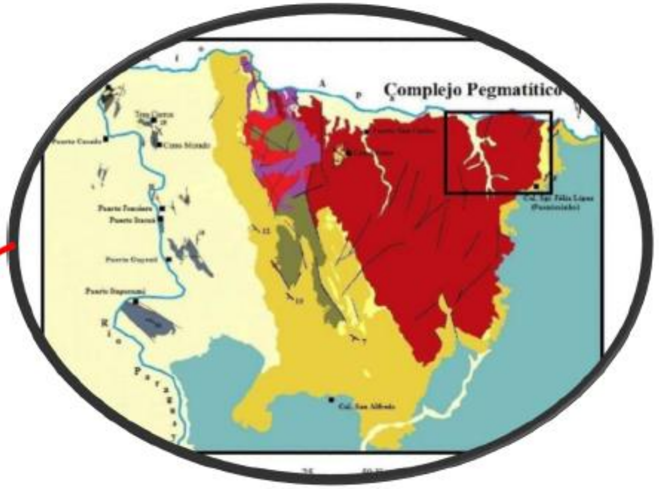
Southern Alkaline Complex
Niobium, Rare Earths, Tantalum, Barium, Phosphorous, Lithium, Iron

Lithium in brine



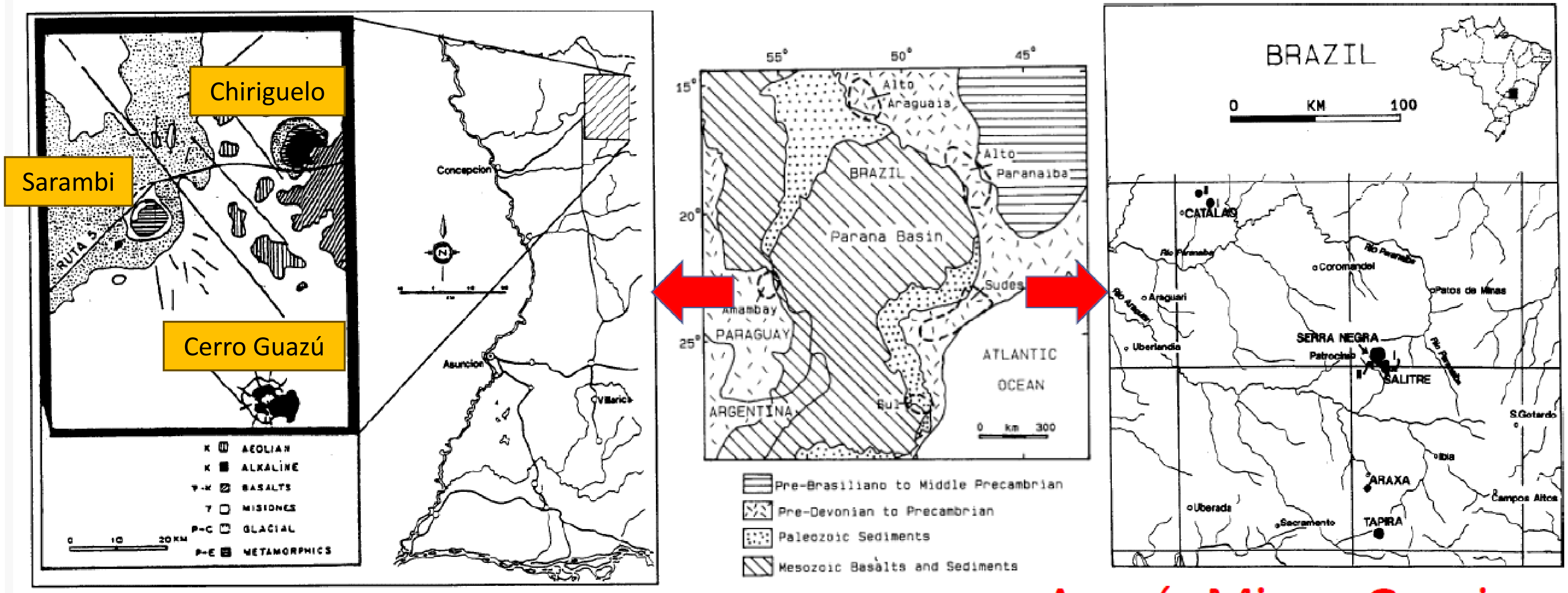
Lithium in Pegmatite

Complejo pegmatitico



Paraguay

Raren Earths in Alkaline Complex



Amambay, Paraguay

Araxá, Minas Gerais

Similar Alkaline Deposits

CBMM

- Mineral: Niobium
- Capacity 150.000 t/a
- Resources: 440 Mt (3%-11% Nb_2O_5)
- Location: Araxá – Minas Gerais

Vale (SSP fertilizer plant)

- Mineral: Phosphate
- Capacity : 1.2 Mt/a
- Resources 156 Mt (11.64 g/t P_2O_5)
- Location: Araxá – Minas Gerais

BAC Fertilizer Corp.

Minerals: Rare Earths y Niobium

Capacity 120.000 t/a (7.96% TREO, 1,5% Nb_2O_5)

Location: Araxá – Minas Gerais

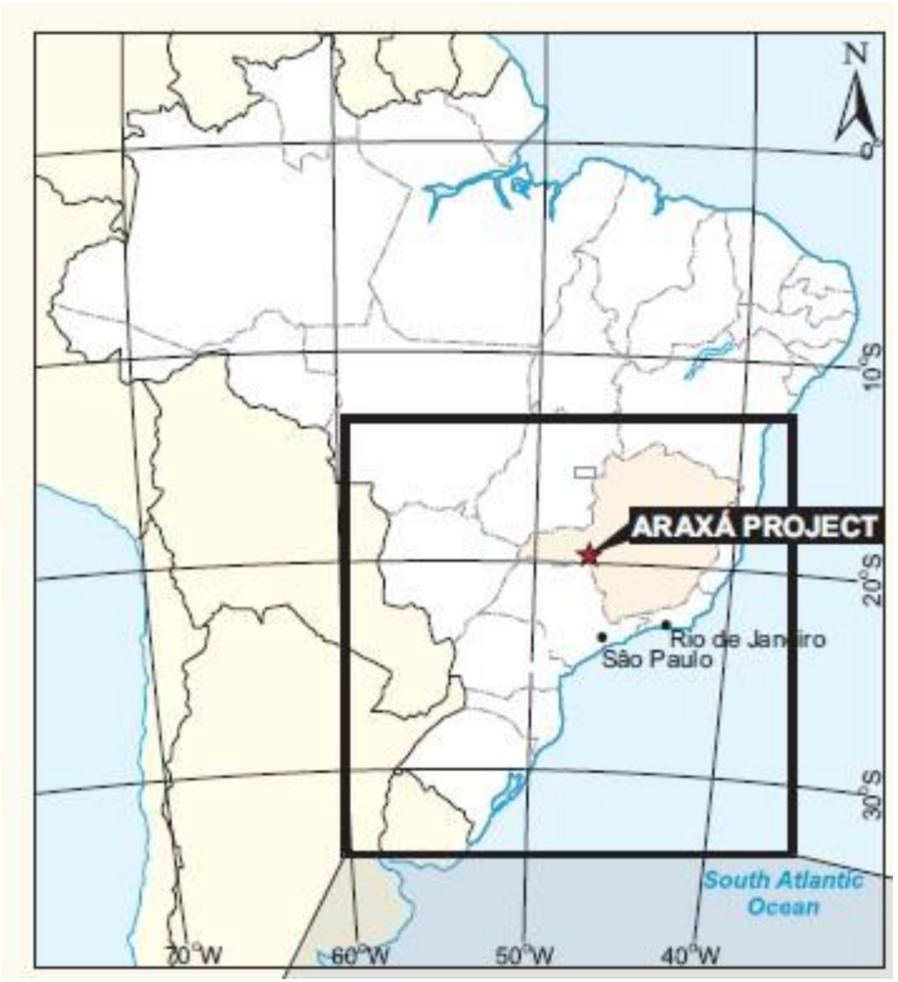
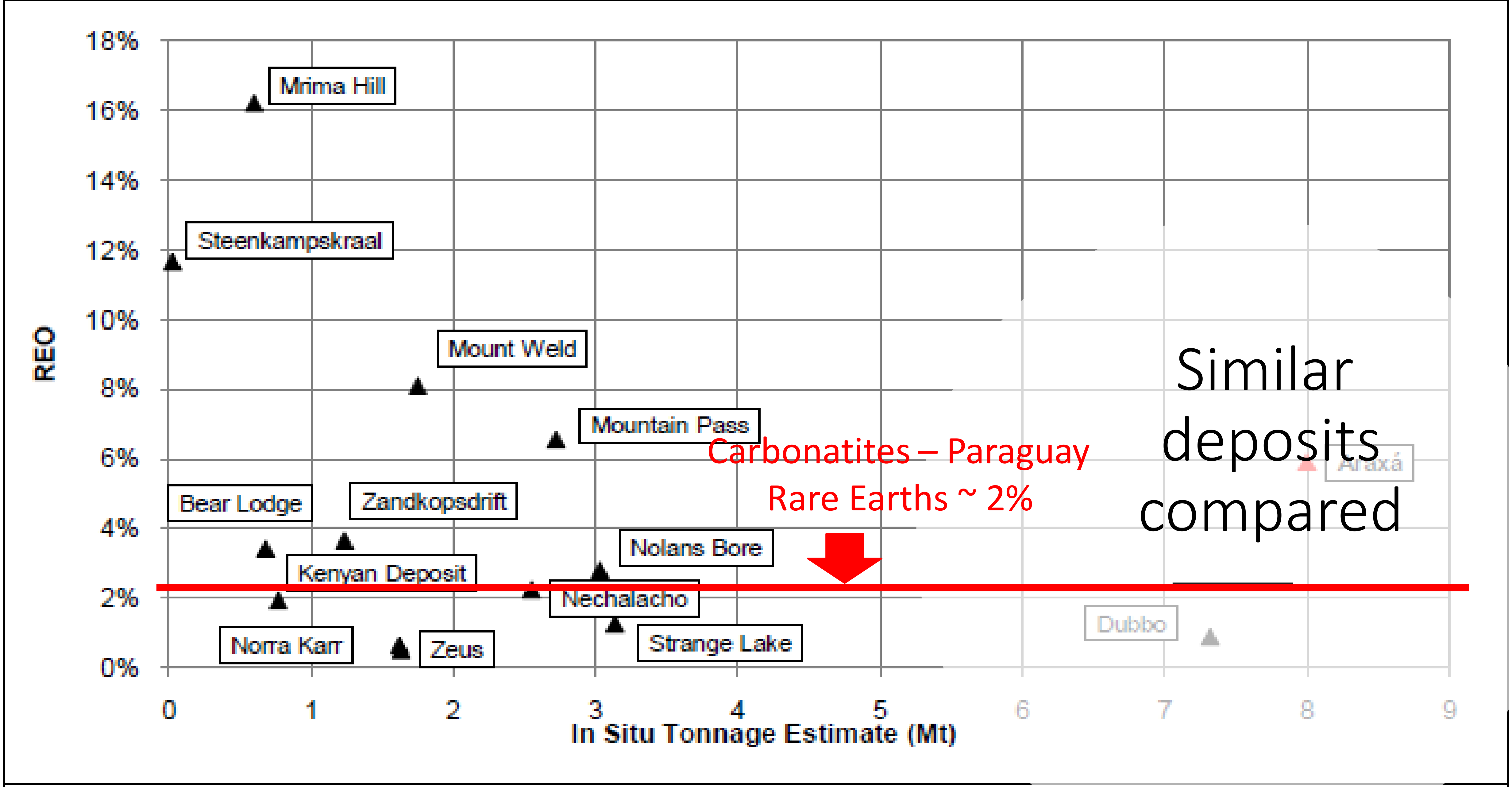


Figure 39 : Comparison of Grade versus Tonnage for REE Deposits



4.Mining Licenses

Type of Mining Licenses

1. Two types of mining licenses:

a) Permits

- ✓ Approved by Resolution (Ministry of Public Works & Communications)
- ✓ Resolution issued in 60 days

b) Concessions

- ✓ Approved by law (Congress)
- ✓ Concession Law issued in 1-2 years

2.Duration of Mining Activities

Activities	Ordinary period	Extension
Prospecting [1]	1 year	1 year
Exploration [1]	3 years	3 years (annually)
Exploitation [2]	20 years	10 years (one extension)

3. Area granted for mining activity: 400.000 hectares (maximum)

5.Mining Costs

Summary of Mining Costs

Mining Activity	Minimum investment per year (USD/hectare)	Mining fee (USD/hectare)	Royalties
Prospecting	1.00	0.5 – 0.6	-
Exploration	1.50 – 4.00	1.00 – 3.00	-
Exploitation	30% investment in the previous exploration phase	2.5	2 – 84 % of quarterly income

6.Getting a mining permit

Mining costs

1. Minimum investment

- A minimum annual investment is required.
- Investment varies between1.00 to 4.00 USD/ha

2. Mining fee

- Annual amount paid for land ownership
- 0.50 to 3.00 USD/ha

3. Royalties

- Charged on quarterly income
- 2.00 -8.40%

Process to obtain a mining license

Submit mining application

Certificate of application approval

Institution: MOPC
Duration: 60-90 days

Presentation of the Environmental Impact Assessment

Obtain Environmental License

Institution : MADES
Duration : 60-90 días

Submit Environmental Licence

Obtain Mining Permit

Institution : MOPC
Duration : 1-2 weeks

Referencias:
MOPC: Ministerio de Obras Públicas y Comunicaciones
MADES: Ministerio del Ambiente

Obtaining a mining permit (prospecting)

Step 1

Solicitud de

- Submit documents to MOPC (Ministry of Public Works & Communication)
- Revision of documents
- Partial approval (MOPC certificate)

Duration:30-60 days

Step 2

Applying for Environmental License

- Submit documents to MADES (Ministry of Environment)
- Revision of documents
- Site inspection

Step 3

Obtention of Environmental License

- MADES issues Resolution

Duration: 30-90 days

Step 4

Obtention of mining permit

- Submit Environmental License to MOPC
- MOPC issues resolution of mining permit (prospecting)

Duration: 1-2 weeks

7.Conclusions

- There is a High Global Demand and Low Supply of critical minerals like lithium and rare earths that are essential for green technologies, batteries, and the energy transition.
- It is the perfect storm to explore the Untapped Geological Potential of Paraguay with favorable geology for lithium, niobium, uranium, iron, rare earths, gold, and phosphates, with vast unexplored regions.
- Paraguay has the lowest mining costs in the region (Mining fees, royalties, etc)
- Paraguay Favorable Environment: Tax incentives, economic stability, and clear mining regulations attract foreign investment and project development.

Thank you
Q & A

MINISTERIO DE
OBRAS PÚBLICAS Y
COMUNICACIONES
VICEMINISTERIO DE
MINAS Y ENERGÍA
PARAGUAY