

RARE EARTHS EXPLOITATION-- A PROMISING INDUSTRY FOR VIETNAM

**Nguyen Huu Hoai
Russin & Vecchi**

Tel: (84-28) 3824-3026
Email: nhhoai@russinvecchi.com.vn
Web: www.russinvecchi.com.vn

Rare earth elements, as the term implies, are elements that are mined. There are 17 types and many of them appear together. After they are extracted, they are refined and generally processed into metals or alloys that have wide application--some in quite small quantities, and many in high tech devices: smart phones, digital cameras, batteries, hard discs, fluorescent lighting, TVs, computers and much more. Significant defense applications include electronic displays, guidance systems, lasers, radar, and sonar systems. The amount of rare earth elements (REE) used in each product may not be a significant part of the product by weight, value, or volume, but without them, the product would not be functional. They are vital to large swaths of technology.

The demand for rare earths is driving a mining boom in Asia, the home of the world's major reserves. Vietnam is ranked no. 2 in terms of rare earth reserves, and stands only after China. The Government has recently approved a master plan for exploration, exploitation and usage of natural resources (including rare earths) during 2023 – 2030, with a vision to 2050. This article discusses Vietnam's policy to develop the rare earth industry.

Factors driving the development of rare earth mining. Many factors are driving the exploration and exploitation of rare earths. *First*, without an acceptable substitute, various high-tech industries will face a major hurdle. Vietnam's main supplier is China. A supply chain issue has now occurred as China has begun to limit and to control the production and exportation of rare earth elements. *Second*, Vietnam's budget significantly relies on oil and gas production. The exploitation of oil and gas will gradually decline. The price of rare earths has dramatically increased. Rare earth exploitation can be an alternative source of revenue for Vietnam. *Third*, REEs are also key components of various clean products such as electric vehicles, solar panels, turbines used in wind power projects and more. (This helps to explain the commitments Vietnam made to COP 26 to reduce CO₂ emissions to zero by 2050). *Fourth*, it is estimated that Vietnam's reserves of REE may reach 22 million tons. That provides great promise for Vietnam to develop its mining industry in this new sector. Both foreign and domestic investors are seeking opportunities to develop large-scale rare earth mining projects. The development of rare earth REE extraction and processing will promote the development of Vietnam's economy including both main and supporting industries. *Finally*, large manufacturers that use REEs normally have a long-term stable source, and do not rely on a single supplier. It seems that Vietnam can be a solid alternative source.

Vietnam’s conditions for rare earth mining. Although Vietnam has solid reserves, the serious development of Vietnam’s rare earths industry has only just begun. To date, there are only two licensed mining projects both in Lai Chau Province near the border with China: one is being developed, and one has been suspended. Other projects in Lao Cai and Yen Bai Provinces remain on the master plan.

Vietnam’s general policy. The policy on exploration and exploitation of rare earths is mainly set out in the Law on Investment, the Law on Natural Resources, the Planning Law, the Land Law, Decree 31¹, Decree 34², Decree 43³, and Decision 866⁴.

Under Decision 866, the Government plans to explore eight rare earth mining areas between 2023 and 2030 and one mining area between 2031 and 2050. It is estimated that a total of 1,500,000 tons can be explored during that period. This output represents a small percentage of Vietnam’s projected total reserves. Below are mining areas under Decision 866 (including one mine that is already licensed - Nam Nam Xe in Phong Tho District, Lai Chau Province):

No.	Mining and location	Land area (ha)	Objective to explore (Reserves - TR ₂ O ₃ tons)	
			2023-2030	2031-2050
1	Nam Nam Xe (<i>Phong Tho District, Lai Chau Province</i>)	329	71,000	
2	Nam Dong Pao (<i>Tam Duong District, Lai Chau Province</i>)	220	400,000	
3	Khu 3-Nam Mo Dong Pao (<i>Tam Duong District, Lai Chau Province</i>)	37	30,972	
5	Then Thau (<i>Phong Tho District, Lai Chau Province</i>)	554		1,500,000
6	Then Sin (<i>Tam Duong District, Lai Chau Province</i>)	1,330	126,000	
7	Muong Hum (<i>Bat Xat District, Lao Cai Province</i>)	2,985	129,207	
8	Khu Tan An (<i>Van Ban District, Lao Cai Province</i>)		101,640	
9	Khu Lang Phat (<i>Van Yen District, Yen Bai Province</i>)	796	124,357	

As a general rule, it is prohibited to export raw and unprocessed natural ore. This rule also applies

¹ Decree 31/2021/ND-CP of the Government dated March 26, 2021 (“**Decree 31**”)

² Decree 34/2014/ND-CP of the CP dated April 29, 2014 (“**Decree 34**”)

³ Decree 43/2014/ND-CP of the Government dated May 15, 2014 (“**Decree 43**”)

⁴ Decision 866/2023/QĐ-TTg of the Prime Minister dated July 18, 2023 (“**Decision 866**”)

to rare earths. However, mining companies may export products which have been processed from rare earths. In addition, Decision 866 requires mining companies to: (i) have technical and financial capabilities, (ii) invest in processing (by applying advanced technology and equipment), and require that products which have been processed from rare earths contain at least 95% of rare earths oxide, hydroxide and salt; and (iii) protect the environment.

Conditions to develop rare earths mining projects. Generally, we believe that both local and foreign investors will be treated equally. Conditions that apply to local investors will also apply to foreign investors. But, there are additional conditions for foreign investors that develop mining projects.

For example, under Decree 31, “*exploration, exploitation and processing of natural resources and mining*” is limited and conditional for foreign investors. To date, there is no domestic legislation that provides specific conditions for foreign investors to engage in rare earth mining. There is only an international agreement that accords a mechanism whereby a mining company from a CPTPP⁵ country may be licensed, subject to Vietnam’s sole discretion. At minimum, certain conditions must be met: (i) only large-scale projects--that generate local jobs, use local content, and products made from rare earths can be exported from Vietnam--may be licensed; (ii) there must be a role for Vietnam to participate in the project; (iii) economic efficiency of the project, development of technology and new products in Vietnam must be clear; (iv) the project can promote and create the competitive advantages for Vietnam; (v) the development of the project must be consistent with national policies for the industry, economy and culture, and it must provide a material, positive effect for Vietnam; and (vi) the project can help Vietnam to enhance its competition in the global market.

There is history suggesting that foreign investment is welcome despite the narrowness of the rules. In 2011, before CPTPP, Vietnam and Japan entered into a bilateral agreement that allowed a Japanese company: “Japan Oil, Gas and Metals National Corporation” (JOGMNC) to invest in a rare earth project in Lai Chau Province. The project was known as the Dong Pao Project. The project was not implemented as JOGMNC found an alternative site outside of Vietnam. Mining companies from non-CPTPP countries might also be licensed, but on a reciprocal basis and under a separate agreement between Vietnam and its home country.

Under Decision 866, 11 new mining projects will be developed and exploited in Lai Chau (7 projects), Yen Bai (3 projects), and Lao Cai (1 project) Provinces. Serious investors may want to explore these opportunities.

[Note: The table above provides a list of rare earths deposits that will be EXPLORED during 2023-2050. The 11 new mining projects under Decision 866 will be EXPLOITED during 2023-2050]

⁵ CPTPP is an abbreviation of **Comprehensive and Progressive Agreement for Trans-Pacific Partnership** which is a trade agreement among Australia, Brunei, Canada, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, and Vietnam.

Selection of an investor. If there are two or more investors that are interested in the same mining project, the selection of an investor will be made through competitive bidding.

Construction and land matters. The mining projects in these provinces are within a border belt between Vietnam and China (ie, projects that are in Lai Chau and Lao Cai Provinces). According to Decree 34, any construction work within the border belt must be approved in advance by Vietnam (including the Ministry of National Defense, the Ministry of Public Security, and the Ministry of Foreign Affairs). Local construction authorities must obtain approval before a construction permit can be issued.

Under Article 58 of the Land Law and Article 13 of Decree 43, local authorities are allowed to lease a parcel of land to a foreign direct investment project only after local authorities have obtained approvals from the Ministry of National Defence, Ministry of Public Security and Ministry of Foreign Affairs if the project is located within border communes. In some cases, a lease may be subject to a different set of approvals, say those set forth by the National Assembly or Prime Minister. This preparatory, licensing and regulatory process needs to be taken into account.

Royalties and other financial obligations. Mining companies, of course, must pay a royalty to explore for REEs. Royalties are based on the type of minerals and the estimated value of the reserves. Royalties must be paid annually. In addition to royalties, mining companies must also pay a natural resources tax. The tax is computed on the basis of tax rates, assessable prices and volumes of rare earths. The current rate ranges from 12% to 25% of (i) the weight of each REE (after extraction) and (ii) assessable price. The assessable price is (i) the selling price (in case of domestic sale) or (ii) export price (in case of export). Royalties must be paid regardless of whether the mining companies have commenced commercial operations, and the natural resources tax must be paid regardless of whether the REEs are being processed or are in inventory.

There is another financial obligation. The mining company is required to make an annual deposit with the Vietnam Environmental Protection Fund in order to secure post-mining restoration. The deposit will be refunded to the mining company after it has completed required post-mining restoration. The amount of the deposit is determined and based on the estimated cost to restore the project. These costs are approved by the mining licensing authorities before a quarry can begin to operate.

The national master plan has been approved. This is an important step to develop the rare earths industry. In the future Vietnam may become a rare earth exporter. Government at every level must be supportive. Local authorities in remote areas (Lai Chau, Lao Cai and Yen Bai Provinces) are eager to develop the industry in order to promote their own economy and to generate jobs. There are challenges for Vietnam due to its lack of appropriate technology to explore and to extract REEs. Cooperation between foreign and domestic qualified investors can certainly be pursued in order to develop the young industry.

