

Pursuant to the Government's Decree No. 160/2005/ND-CP of December 27, 2005, detailing and guiding the implementation of the Law on Minerals and the Law Amending and Supplementing a Number of Articles of the Law on Minerals;

Pursuant to the Government's Decree No. 189/2007/ND-CP of December 27, 2007, defining the functions, tasks, powers and organizational structure of the Ministry of Industry and Trade;

In furtherance of the Government Office's Notice No. 5487/VPCP-CN of November 28, 2007, notifying the Prime Minister's opinions on authorizing the Minister of Industry (now the Minister of Industry and Trade) to approve the planning on zoning of areas for exploration, exploitation, processing and use of tin, tungsten and antimony ores during 2007-2015, with a vision toward 2025,

Considering Report No. 402/TTr-NCPT of October 24, 2007 of the director of the Industrial Strategy and Policy Research Institute;

At the proposal of the directors of the Planning Department and the Heavy Industry Department,

DECISION No. 05/2008/QĐ-BCT OF MARCH 4, 2008, APPROVING THE PLANNING ON ZONING OF AREAS FOR EXPLORATION, EXPLOITATION, PROCESSING AND USE OF TIN, TUNGSTEN AND ANTIMONY ORES DURING 2007-2015, WITH A VISION TOWARD 2025

THE MINISTER OF INDUSTRY AND TRADE

Pursuant to the March 20, 1996 Law on Minerals and the June 14, 2005 Law Amending and Supplementing a Number of Articles of the Law on Minerals;

DECIDES:

Article 1.- To approve the planning on zoning of areas for exploration, exploitation, processing and use of tin, tungsten and antimony ores during 2007-2015, with a vision toward 2025, with the following principal contents:

I. Development viewpoint

1. To develop the industry of exploitation and processing of tin, tungsten and antimony ores in line with the planning on Vietnam's industry development and local socio-economic development plannings, ensuring harmony

between national interests and local interests, and facilitating the development of infrastructure, stabilization and improvement of the life of people in localities where those ores are exploited and processed.

2. To develop the industry of exploitation and processing of tin, tungsten and antimony ores in a fashion beneficial to the maintenance of defense and security, protection of valuable cultural works and the ecological environment in localities where exist these minerals.

3. To develop in a sustainable, safe and efficient manner the industry of exploitation and processing of tin, tungsten and antimony ores on the basis of rationally and economically exploiting the country's natural resources and using imported mineral materials.

4. To develop the exploitation and processing of tin, tungsten and antimony ores mainly based on internal strengths. To combine internal resources with foreign investment in developing tungsten ore exploitation and processing. To encourage domestic and foreign economic sectors to participate in the production of tin, tungsten and antimony metals and alloys of high quality and added value.

5. To conduct exploration one step ahead in order to create a reliable database on tin, tungsten and antimony ores for subsequent mineral exploitation and processing.

II. Development objectives

- To ensure the efficient and sustainable exploration, exploitation and processing of tin, tungsten and antimony ores to satisfy to the utmost the needs of metallurgy and other industries for raw materials and export a rational volume of pure ores, intermediary products and metals.

- To enhance discipline and law in the management and protection of tin, tungsten and antimony ores, ensure the safe, exhaustive and economical exploitation of natural resources and protect the ecological environment in localities where exist these minerals.

- To strive for the targets that the output of tin bars of all kinds wrought from domestic tin ores will reach 2,600 tons by 2010 and more than 3,000 tons from 2015 on. After 2010, the ratio of class-I tin bars to the total output of pure tin metal will reach over 80%.

- To ensure that outputs of exploited and sorted tungsten metal (counted by the content of WO_3 in tungsten pure ores) and tungsten alloys made from domestic tungsten ores will reach around 3,600 tons and around 1,000 tons by 2010, and 4,900 - 5,000 tons and 3,000- 3,500 tons by 2015 and afterward, respectively.

- To ensure that the output of antimony bars wrought from domestic antimony ores will reach around 1,000 tons by 2010 and more than 1,600 tons by 2015 and afterward.

III. Areas where tin, tungsten and antimony mineral activities are banned, temporarily banned or limited, and national tin tungsten and antimony mineral resource reserves

1. Areas where mineral activities are limited: The underground tin ore in Son Kim (Khe Bun mine), Huong Son district, Ha Tinh province.

2. Areas of national mineral resource reserves: The Na Ca tin spread (on an area of some 20 km²) and the remaining part the Chau Cuong tin spread, Quy Hop district, Nghe An province.

3. Tin, tungsten and antimony mines and mining spots where mineral activities are banned or temporarily banned include:

No	Name of mine or mineral mining spot	Geographical position
1	Tin mine in Long Lanh	Da Nhim, Dung K'No and Da Chais communes, Lac Duong district, Lam Dong province
2	Tin mine in Da Thien (in the north of Da Lat city)	Da Lat city, Lam Dong province
3	Tin mine in Thai Phien	Da Lat city, Lam Dong province
4	Tin mine in the east of Thai Phien	Da Lat city, Lam Dong province
5	Tin mine in hill 1534	Da Lat city, Lam Dong province
6	Tin mine in Hoa Bac	Di Linh district, Lam Dong province
7	Tin mine in the north of Xuan Tho	Da Lat city, Lam Dong province
8	Antimony mine in Khon Re	Mai Sao commune, Chi Lang district, Lang Son province

IV. Vietnam's demands for tin, tungsten and antimony

1. Demands for tin, tungsten and antimony metals are forecast as follows:

Unit of calculation: ton

No	Category	2010	2015	2020	2025
1	Tin	2,100 - 2,200 Average: 2,150	3,700 - 4,000 Average: 3,850	6,800 - 7,000 Average: 6,900	8,000 - 9,000 Average: 8,500
2	Tungsten	650 - 700 Average: 660	800 - 900 Average: 850	930 - 1,000 Average: 980	1,100 - 1,200 Average: 1,150
3	Antimony	900 - 1,000 Average: 950	1,100 - 1,300 Average: 1,200	1,700 - 2,000 Average: 1,850	2,000 - 2,400 Average: 2,200

2. Supply-demand balance:

a/ The balance between production output and domestic consumption, import and export demands for tin bars and products is estimated as follows:

Unit of calculation: ton

No	Content	2010	2015	2020	2025
1	Demand for tin (converted into tin bars)	2,150	3,850	6,900	8,500
2	Production of tin bars	2,570	3,040	3,020	3,000
3	For domestic consumption	1,170	2,040	2,520	2,500
4	For export of tin bars	1,400	1,000	500	500
5	Import of tin and tin products (converted into tin bars)	980	1,810	4,380	6,000

b/ The balance between production output and domestic consumption, import and export demands for tungsten bars and products is estimated as follows:

Unit of calculation: ton

No	Content	2010	2015	2020	2025
1	Demand for tungsten (converted into tungsten metal)	660	850	930	1,150
2	Production of pure ores (converted into tungsten metal)	2,770	3,730	3,800	3,770
3	For domestic consumption (converted into tungsten metal)	70	160	220	270
4	For export of pure ores and products (converted into tungsten metal)	2,700	3,570	3,580	3,500
5	Import of tungsten metal and products (converted into tungsten metal)	590	690	750	880

c/ The balance between production output and domestic consumption, import and export demands for antimony bars and products is estimated as follows:

Unit of calculation: ton

No	Content	2010	2015	2020	2025
1	Demand for antimony (converted into antimony bars)	950	1,200	1,850	2,200
2	Production of antimony bars and other products (converted into antimony bars)	1,040	1,660	1,660	1,660
3	For domestic consumption (converted into antimony bars)	340	460	660	860
4	For export of antimony bars	700	1,200	1,000	800
5	Import of antimony metal and products (converted into antimony bars)	610	740	1,190	1,340

V. Plannings on exploration of tin, tungsten and antimony ores**1. Exploration of tin ores**

- To prioritize the exploration of spread and underground ores of tin mines and ore spots in two areas of Pia Oac (Cao Bang province) and Tam Dao (Tuyen Quang and Thai Nguyen provinces).

- In other ore areas, to prioritize the exploration and additional exploration of potential mines and ore spots at a pace suitable to the planned speed of natural resource exploitation in order to achieve general development objectives of the tin industry.

- During 2007-2015: To implement 17 exploration schemes.

- During 2016-2025: To implement 10 exploration schemes.

The list of major tin ore exploration schemes is specified in Section A1 of the Appendix to this Decision.

- Total investment capital required for tin ore exploration during 2007-2025 will be around VND 235 billion, including VND 100 billion for the 2007-2015 period.

2. Tungsten ore exploration

- From now to 2010, to conduct survey, assessment and exploration of the tungsten ore area in Ho Quang Phin (Ha Giang province); to conduct additional exploration of underground tungsten ores in Thien Ke and Hoi Ke zones in Thien Ke mine (Tuyen Quang province).

- After 2010, to explore tungsten ores mainly in Dak Rmang area, Dak Nong province (after results of survey and assessment of local potential ores are obtained).

The list of major tungsten ore exploration schemes is specified in Section B of the Appendix to this Decision.

3. Antimony ore exploration

- During 2007-2015: To conduct exploration of the Bo Moi antimony ore spot so as to supply additional mineral materials for the antimony extraction plant in Ha Giang province; to conduct additional exploration in Lang Vai mine, with attention paid to accompanied gold, in order to prepare for the resumption of production in Lang Vai mine and study the possibility of investment in an antimony bar production plant in Chiem Hoa district, Tuyen Quang province.

- During 2016-2025: In addition to the scheme on antimony ore exploration in Duong Huy (Quang Ninh), to plan the exploration of potential ore spots selected from the survey and assessment of antimony ores in the Lo-Gam river belt in Ha Giang province (Yen Minh and Meo Vac) and Cao Bang province, and Nam Chay area in Lao Cai province.

The list of major antimony ore exploration schemes is specified in Section C1 of the Appendix to this Decision.

- Total investment capital required for the exploration of antimony ores during 2007-2025 will be between VND 60-80 billion, including around VND 30 billion for the 2007-2015 period.

VI. Plannings on tin ore exploitation and processing**1. Planning on exploitation and sorting of tin ores**

- To step up the exploitation and processing of underground tin ores in order to make up for the decrease in the exploitation and processing of spread tin ores in Pia Oac and Tam Dao areas; to further invest in and renew exploitation and sorting technology so as to ensure the efficiency of exploitation and processing of poor spread tin ores, fine-granule underground tin ores, tin-tungsten ores and tin-lead-zinc-silver ores.

- By 2015, to concentrate on the salvaged exploitation of tin ores in deserted mines and

residual ores in Pia Oac and Tam Dao and some other areas.

- To maintain small-scale exploitation suitable to the volume of natural resources and capability of each locality, contributing to satisfying the needs of existing plants and to-be built tin sorting and refining plants.

- In major tin ore areas, to plan the implementation of 17 investment projects on industrial-scale tin ore exploitation and sorting, including 3 on production maintenance and expansion, 14 on building of new mines, and 4-5 to be implemented after 2020.

The list of major investment projects on tin ore exploitation and sorting is specified in Section A2 of the Appendix to this Decision.

2. Planning on sorting of pure tin ores and production of tin bars

By 2015, to complete the phase-I expansion of the class-I tin bar electrolysis line of Nghe Tinh Non-ferrous Metal Company; to build three new plants to sort pure tin ores and produce class-I tin bars in Tuyen Quang, Ha Tinh and Lam Dong provinces, and one class-I tin bar electrolysis line in Nghe An.

The list of major investment projects on sorting of pure tin ores and production of class-I tin bars is specified in Section A3 of the Appendix to this Decision.

3. Total investment capital required for the exploitation and sorting of tin ores and production of tin bars

Total investment capital required for the exploitation and sorting of tin ores and extraction of tin metal during 2007-2025 will be around VND 630 billion, including VND 560 billion for exploitation and sorting and VND 70 billion for intensive processing (sorting of pure tin ores, production of crude and refined tin metal). Particularly for the 2007-2015 period, the required

investment capital will be around VND 500 billion.

VII. Planning on exploitation and processing of tungsten ores

- To invest in renovating and expanding the production of Thien Ke mine and develop some more projects on industrial-scale and small-scale tungsten ore exploitation and sorting in order to create jobs and generate mineral material sources for processing establishments.

- To accelerate the implementation of the Nuiphaovica Joint Venture's project on exploitation and processing of polymetalliferous tungsten ores in Nui Phao mine and the Youngsun Tungsten Vietnam Industrial Limited Liability Company's project on building a plant to produce tungsten alloys for export.

The list of major investment projects on tungsten ore exploitation and processing is specified in Section B of the Appendix to this Decision.

- Total investment capital required for tungsten ore exploitation and processing during 2007-2025 will be around VND 5,200 billion (largely for the 2007-2015 period), of which foreign direct investment capital (contributed by Nuiphaovica Joint-Venture and Youngsun Tungsten Vietnam Industrial Limited Liability Company) will be around VND 5,160 billion.

VIII. Planning on exploitation and processing of antimony ores

- To renew the sorting technology for the purpose of raising the recovery rate of antimony and gold in the processing of polymetalliferous ores mingled with tungsten (largely gold ores).

- To step up the exploitation and sorting of antimony ores in Mau Due mine, other mines and ore spots in Ha Giang province in order to satisfy to the utmost the need of the antimony bar production plant in Ha Giang province for pure antimony ores.

- To implement the project on restoration of Lang Vai mine serving the study of and investment in Chiem Hoa antimony bar production plant; the joint-venture project on exploitation and sorting of antimony ores and production of antimony bars in Cam Pha provincial town, Quang Ninh province, which will turn out products by 2010.

The list of major investment projects on exploitation and processing of antimony ores is specified in Section C2 of the Appendix to this Decision.

- Total investment capital required for antimony ore exploitation and processing during 2007-2025 will be around VND 140 billion (largely for the 2007-2015 period), of which foreign direct investment capital will be around VND 42 billion.

IX. Total investment capital required for the development of the industry of exploitation and processing of tin, tungsten and antimony ores during 2007-2025

Total investment capital required for the development of Vietnam's industry of exploitation and processing of tin, tungsten and antimony ores from now to 2025 is estimated at between VND 6,130 and 6,200 billion, of which foreign direct investment capital will be around VND 5,200 billion.

X. Major solutions and policies

1. The group of overall solutions and policies

a/ Formulating a national policy on tin, tungsten and antimony mineral resources in order to ensure the sustainable development of the industry of exploitation and processing of tin, tungsten and antimony ores, with the following principal contents:

- Protecting, exploiting and using in an economical and rational manner domestic natural

resources.

- Organizing the realization of the guideline on investment cooperation in the exploitation of tin, tungsten and antimony ores with neighboring countries (Laos and Cambodia).

- Encouraging the processing of tin, tungsten and antimony ores into high-quality metals and their alloys to meet domestic consumption and export demands.

b/ Stepping up the equitization of existing companies and establishment of new joint-stock companies in the industry with the participation of scientific and technological research organizations engaged in geology, exploitation and sorting of tin, tungsten and antimony ores and production of tin, tungsten and antimony metals. Encouraging these companies to be listed on the stock market with a view to diversifying forms of ownership and mobilizing various resources at home and abroad for the development of the industry of exploitation and processing of tin, tungsten and antimony ores.

c/ Raising social responsibilities of tin, tungsten and antimony mineral enterprises making contributions to building infrastructure; attracting, training and using local workforce; adopting measures to protect the ecological environment; and actively taking part in improving the social environment.

2. The group of specific solutions and policies

a/ Market solution: Building and developing a domestic tin, tungsten and antimony market operating under the market mechanism and facilitating fair competition and close cooperation in order to ensure sufficient material sources for crude and refinery processing establishments which are operating and under construction or planned for construction; step by step participating in the world market.

b/ Researching, transferring and receiving sciences and technologies:

- Perfecting the technology for complete and closed exploitation and sorting of underground ores from (pit) mining to gravity and floatation sorting. Attaching importance to researching into a technology for the effective treatment of poor (spread and underground) tin ores. The State, scientific and technological enterprises and mineral exploitation and processing enterprises will cooperate in researching into and developing a technological process of extracting tungsten mingled in tin ores, antimony mingled in gold ores, tin-polymetal (lead, zinc, silver) ores.

- Further renewing and improving metallurgical technologies, and unceasingly raising the quality of tin and antimony bars.

- Cooperating with foreign countries in the research and production of tungsten metal, and high-quality tin, tungsten and antimony alloys and intermediary products.

c/ Developing and training human resources: Cooperating with training establishments (vocational schools, colleges and universities) in training and retraining laborers and scientific researchers engaged in mining, mineral sorting and metallurgy suitable to the volumes and characteristics of Vietnam's tin, tungsten and antimony minerals. Attaching importance to the training of qualified mineral business leaders and administrators to meet enterprise development requirements in the context of global competition.

d/ Protecting the environment: Mineral exploitation and processing enterprises shall apply all environmental protection measures in the processes of mineral exploration, exploitation and sorting and metallurgy in the direction of applying modern and environmentally friendly technologies; seriously carrying out the restoration of the ground and environment after exploitation.

Ensuring industrial sanitation and labor safety in production. Encouraging research into and application of advanced environmental treatment technologies at all production stages.

e/ Investment capital solution: To mobilize between VND 6,130 and 6,200 billion for the investment in development of Vietnam's industry of exploitation and processing of tin, tungsten and antimony ores up to 2025 from the following sources:

- Self-acquired capital of enterprises.

- Budget capital: To be used as investment supports for technical infrastructure works outside the fences of large-scale tin, antimony and tungsten exploitation areas, and invested in training and scientific and technological research activities of institutes and schools in the branch.

- The State's investment credit loans: To be provided for investment projects on exploitation and processing of tin and antimony ores and production of tin and antimony bars in localities with difficult or particularly difficult socio-economic conditions under current regulations.

- Domestic and foreign commercial loans.

- Capital provided by financial institutions in the form of hire, hire-purchase or purchase of donor's equipment; credits of technology and equipment sellers.

- Foreign investment capital: To set up joint ventures with foreign parties to carry out large-scale tungsten and antimony ore exploitation and processing project.

f/ State management solutions:

- Periodically reviewing, updating and adjusting the planning on development of the industry of exploration, exploitation and processing of tin, tungsten and antimony ores to make it suitable to the national and global socio-economic development.

- Formulating and perfecting a mechanism of management of mineral exploration, exploitation and processing in the direction of vesting powers to a sole body in order to ensure the unified, strict, clear, active and effective management, protection and exploitation of tin, antimony and tungsten ores.

- Periodically improving the work of management of natural resources, making of statistics and reporting on tin, tungsten and antimony mineral activities from the grassroots level to provincial and ministerial levels. Applying handling measures and imposing sanctions against organizations and individuals that fail to fully comply with legal provisions on this work. Intensifying the inspection and examination of mineral activities so as to prevent illegal mineral exploitation and export.

g/ Some other solutions:

- Renovating the procedures for granting mineral activity permits toward convenience and publicity and strict management of mineral activities

- Reviewing indicators used in the determination of deposits and forecast of tin, tungsten and antimony ores to suit increasing tin, tungsten and antimony ore and metal prices as well as scientific and technological advances in mineral exploitation and processing.

XI. Organization of implementation

1. The Ministry of Industry and Trade shall publicize and organize the implementation of the planning, regularly update and adjust the planning and propose mechanisms and policies on sustainable development of the industry of tin, tungsten and antimony ore exploitation and processing to ensure its consistency and conformity with the national socio-economic

development and international integration commitments.

2. The Ministry of Natural Resources and Environment, the Ministry of Science and Technology, the Ministry of Planning and Investment, the Ministry of Finance, the Ministry of Transport and the Ministry of Information and Communication shall, within the scope of their respective functions and tasks, assume the prime responsibility for, and coordinate with the Ministry of Industry and Trade in, concretizing solutions and policies set forth in this Decision.

3. Provincial/municipal People's Committees shall:

- Organize the management and protection of tin, tungsten and antimony ores in their localities; prevent the illegal exploitation and export of these minerals.

- Zone off and approve areas where tin, tungsten and antimony mineral-related activities are banned, temporarily banned or limited.

- Coordinate with state management agencies and enterprises in implementing projects specified in this Decision.

- Elaborate and submit to People's Councils of the same level for approval plannings on exploration, exploitation and processing of tin, tungsten and antimony ores falling under their competence and in line with this planning.

Article 2.- This Decision takes effect 15 days after its publication in "CONG BAO."

Article 3.- Ministers, heads of ministerial-level agencies, heads of government-attached agencies and presidents of provincial/municipal People's Committees shall implement this Decision.

Minister of Industry and Trade
VU HUY HOANG

APPENDIX
LIST OF SCHEMES ON EXPLORATION AND INVESTMENT PROJECTS ON EXPLOITATION
AND PROCESSING OF TIN, TUNGSTEN AND ANTIMONY ORES DURING 2007-2015,
WITH A VISION TOWARD 2025

(Promulgated together with the Minister of Industry and Trade's Decision No. 05/2008/QĐ-BTC of March 4, 2008)

A1. Schemes on exploration of tin ores during 2007-2025

No	Content	Province, ore area	Target	Investment capital (VND billion)
1	Exploration of spread tin-tungsten ores in Nam Kep	Cao Bang/Pia Oac	3,000 tons of SnO ₂ , classes B+C1	5
2	Exploration of underground tin in Ngòi Lem	Tuyen Quang/Tam Dao	3,500 tons of Sn, class C1	5
3	Exploration of underground tin in Khuon Phay	Tuyen Quang/Tam Dao	2,000 tons of Sn, classes C1+C2	3
4	Exploration of underground tin-bismuth in western Núi Phao	Thai Nguyen/Tam Dao	5,000 tons of Sn, classes C1+C2	7
5	Exploration of underground tin in Thanh Sơn	Tuyen Quang/Tam Dao	600 tons of Sn, classes C1+C2	2
6	Exploration of underground tin-tungsten in Bu Me, phase I	Thanh Hoa	6,000 tons of Sn+WO ₃ , classes C1+C2	7
7	Additional exploration of spread tin ores according to the progress of exploitation by Nghe Tinh Non-Ferrous Metal State Company Limited	Nghe An	4,000 tons of SnO ₂ , class C1	4.2
8	Exploration of underground tin in Suối Bắc- Suối Mai, phase II	Nghe An	5,000 tons of Sn, classes C1+C2	7

12	Exploration of tin-lead-zinc-silver in Lang Dong	Nghe An	3,300 tons of Sn, classes C1+C2	7
13	Exploration of underground tin in Khe Bun/Son Kim	Ha Tinh	12,000 tons of Sn, classes C1+C2	12
14	Exploration of tin ores in Sa Vo, Di Linh district	Lam Dong-Ninh Thuan		7
15	Exploration of tin ores in Nui Cao	Lam Dong-Ninh Thuan	1,000 tons of Sn, classes C1+C2	5
16	Exploration of tin ores in Datanky	Lam Dong-Ninh Thuan	2,000 tons of Sn, classes C1+C2	7
17	Exploration of tin ores in Tap La	Lam Dong-Ninh Thuan	3,000 tons of Sn, classes C1+C2	7
18	Exploration of tin and tin-tungsten ores in Dong Van-Yen Minh	Ha Giang		20
19	Exploration of tin ores in Ngan Son district	Bac Kan/Pia Oac		20
20	Exploration of tin ores in areas along national highway No. 13A's section in Dai Tu district	Thai Nguyen/Tam Dao		25
21	Additional exploration of underground tin-tungsten in Bu Me, phase II	Thanh Hoa	6,000 tons of Sn+WO ₃ , classes C1+C2	10
22	Exploration of underground tin ores in Thuong Xuan district (except for Bu Me mine)	Thanh Hoa		20
23	Additional exploration of underground tin in Suoi Bac-Suoi Mai, phase III	Nghe An	5,000 tons of Sn, class C1	7
24	Exploration of spread tin ores in Lang Song	Nghe An	1,000 tons of SnO ₂ , class C1	5
25	Additional exploration of underground tin-lead-zinc in Ke Tang, phase II	Nghe An	5,000 tons of Sn, classes C1+C2	7
26	Exploration of underground tin ores in Chau Tien commune, Quy Hop district	Nghe An		15
27	Exploration of underground tin ores in Gung Re, Di Linh district	Lam Dong-Ninh Thuan		7

A2. Projects on exploitation and sorting of tin ores for production of tin bars during 2007-2025

Unit of output: ton of tin in pure ores/year

No	Content	Exploitation and sorting scale	Output	Investment capital (VND billion)	Note
I.	During 2007-2015				
1	Exploitation and sorting of spread tin ores in Nam Kep (Cao Bang)	Industrial scale	118	20	
2	Exploitation and rough sorting of spread tin ores in Khuon Phay, Ngoi Lem and Khuon The (Tuyen Quang)	Small	80		
3	Exploitation and rough sorting of underground tin Khuon Phay (Tuyen Quang)	Industrial	100	15	
4	Exploitation and rough sorting of underground tin-bismuth ores in western Nui Phao (Thai Nguyen)	Industrial	150	35	Capital also for fine sorting at the tin extraction plant
5	Exploitation and rough sorting of underground tin Ngoi Lem (Tuyen Quang)	Industrial	130	15	
6	Exploitation and rough sorting of underground tin Thanh Son (Tuyen Quang)	Small	30	7	

7	Exploitation and rough sorting of underground tin-tungsten in Bu Me (Thanh Hoa)	Industrial	150	30	Supply of pure ores for tin extraction in Nghe An
8	Maintenance of production in the spread mine in Ban Poong (Nghe An)	Industrial	118	8	Nghe Tinh Non-Ferrous Metal State Company Limited is currently conducting the exploitation and sorting
9	Maintenance and expansion of spread ore exploitation in Ban Hat (Nghe An)	Industrial	118-197	15	
10	Exploitation and sorting of spread tin ores in Ban Co (Nghe An)	Industrial	79	10	
11	Exploitation and sorting of spread tin ores in Lien Hop (Nghe An)	Small	32	3	
12	Exploitation and rough sorting of underground tin ores in Suoi Bac-Suoi Mai (Nghe An)	Industrial	150	15	
13	Exploitation and rough sorting of underground tin ores in Pan Iom-Ca Doi (Nghe An)	Small	40	7	
14	Exploitation and crude and fine sorting of underground tin ores in Ke Tang (Nghe An)	Industrial	200	40	Fine sorting of crude ores of Lang Dong mine

15	Exploitation and rough sorting of underground tin ores in Khe Bun/Son Kim (Ha Tinh)	Industrial	400	30	Supply of pure ores for the whole country before 2013. Supply of pure ores for production of class-I tin bars in Lam Dong from 2013
16	Exploitation and rough sorting of tin ores in Nui Cao (Lam Dong)	Industrial	50	8	
17	Exploitation and rough sorting of tin ores in Datanky (Lam Dong)	Industrial	100	15	
18	Exploitation and rough sorting of tin ores in Tap La (Ninh Thuan)	Industrial	70	10	
19	Exploitation and rough sorting of underground tin ores in Sa Vo and Gung Re (Lam Dong)	Industrial	100	15	
II.	During 2016-2025				
20	Maintenance and expansion of spread ore exploitation in Ban Hat (Nghe An)	Industrial	236	8	
21	Exploitation and rough sorting of spread tin ores in Lang Song (Nghe An)	Small	32	7	
22	Exploitation and rough sorting of underground tin ores in Lang Dong (Nghe An)	Industrial	120	15	
23	Four or five projects on medium-scale exploitation and sorting of tin ores (largely underground ores) throughout the country	Industrial	600-800	60-100	

A3. Projects on production of tin bars from ores during 2007-2025

Unit of output: ton of tin bars/year

No	Content	Province	Output	Investment capital (VND billion)	Note
1	A plant for fine sorting of tin ores and production of class-I tin bars in Tuyen Quang	Tuyen Quang	300	15	
2	Expansion of the class-I tin bar electrolysis line of Nghe Tinh Non-Ferrous Metal State Company Limited (additional output)	Nghe An	400	6	Production of crude tin and pure tin ores in Thanh Hoa and Nghe An
3	A class-I tin bar refinery electrolysis plant/line in Nghe An	Nghe An	300	10	
4	A plant for fine sorting of tin ores and production of class-I tin bars in Ha Tinh	Ha Tinh	300	15	
5	A plant for fine sorting of tin ores and production of class-I tin bars in Lam Dong	Lam Dong	500	25	Production of pure ores and crude tin in localities from Quang Nam southward

B. Schemes on exploration and projects on exploitation and processing of tungsten ores during 2007-2025

No	Content	Exploitation and sorting scale	Target, output	Investment capital (VND billion)	Note
1	Survey, assessment and survey of areas of tungsten ores in Ho Quang Phin, Ha Giang province (under Document No. 3513/VPCP-CN of June 25, 2007)			10	
2	Exploration of underground tungsten ores in Thien Ke and Hoi Ke areas of Thien Ke mine (Tuyen Quang)		5,000 (tons of WO ₃ , classes C1+C2)	7	
3	Exploration of vonframite in Dak Rmang area (Dak Nong)			15	
4	Exploitation and processing of tungsten-polymetal ores in Nui Phao (Thai Nguyen)	Industrial	4,788	4,900	FDI capital
5	Exploitation and rough sorting of tungsten ores in Xuan Thu mountain (Quang Ngai)	Small	30	10	
6	A project on renovation of Thien Ke mine (Tuyen Quang): exploitation and sorting of underground tungsten ores in Thien Ke and Hoi Ke areas and renewal of sorting technology	Industrial	100	20	
7	Investment in fine sorting for WO ₃ in crude pure ores of the tin and tungsten mine in Bu Me (Thanh Hoa)	Industrial	150	3	
8	Exploitation and sorting of tungsten ores in Ho Quang Phin (and Thang Mo) with a suitable exploitation scale (Ha Giang)				
9	Exploitation and sorting of tungsten ores in Dak Rmang (Dak Nong)				
10	Building of a plant to produce tungsten alloys for export in Cam Pha (Quang Ninh) under Youngsun Tungsten Vietnam Co., Ltd.,		3,500 (tons of alloy)	260	FDI capital

C1. Schemes on exploration of antimony ores during 2007-2025

No	Content	Province	Target	Investment capital (VND billion)
1	Exploration of antimony ores in Bo Moi	Ha Giang	1,500 tons of Sb, class C1	7
2	Additional exploration of antimony ores in Lang Vai mine	Tuyen Quang	5,000 tons of Sb, classes C1+C2	10
3	Exploration of antimony ores in Duong Huy	Quang Ninh	2,000 tons of Sb, classes C1+C2	7
4	Exploration of antimony ores in the structural belt of Lo-Gam rivers	Ha Giang, Cao Bang		25
5	Exploration of antimony ores in Nam Chay area	Lao Cai		15

C2. Projects on exploitation and sorting of antimony ores and extraction of antimony metal from ores during 2007-2025

Unit of output: ton of antimony in pure ores/year; * ton of antimony bars/year

No	Content	Exploitation and sorting scale	Output	Investment capital (VND billion)	Note
1	Exploitation and rough sorting of antimony ores in Bo Moi (Ha Giang)	Industrial	100	6	
2	Resumption of exploitation and sorting of antimony ores in Lang Vai mine (Chiem Hoa, Tuyen Quang)	Industrial	500	30	With importance attached to recovery of gold
3	Study and investment in building an antimony bar production plant in Chiem Hoa (Chiem Hoa, Tuyen Quang)	-	500*	35	
4	Exploitation and fine sorting of antimony ores in western and eastern Khe Chim (Cam Pha, Quang Ninh)	Industrial	200	42	Vietnam-China joint ventures
	Building of an antimony bar production plant in Cam Pha, Quang Ninh	-	500*		
5	Exploitation and fine sorting of antimony ores in Dong Quang 3 and Dong Quang 2 (Cam Pha, Quang Ninh)	Industrial	300	25	Supply of pure ores for the antimony bar production plant in Cam Pha, Quang Ninh
6	Exploitation and rough sorting of antimony ores in Duong Huy and Dong Mo (Cam Pha, Quang Ninh)	Industrial and small	200	15	