

HO CHI MINH NATIONAL ACADEMY OF POLITICS

MAI LAM SON

**STATE MANAGEMENT OF
MINING ACTIVITIES IN VIETNAM**

**SUMMARY OF DOCTORAL THESIS
MAJOR: ECONOMIC MANAGEMENT**

Code: 9 34 04 10

HANOI - 2025

The thesis is completed at
Ho Chi Minh National Academy of Politics

Supervisor: Assoc. Prof., PhD. Le Van Chien,



Handwritten signatures in blue ink. The top signature reads 'Chu Tich' (Chairman) and 'HNG'. The bottom signature reads 'Assoc. Prof. Le Van Chien'.

Reviewer 1: Assoc. Prof., PhD. Hoang Xuan Binh
Foreign Trade University

Reviewer 2: Assoc. Prof., PhD. Pham Thi Hong Diep
University of Economics
Vietnam National University, Hanoi

Reviewer 3: Assoc. Prof., PhD. Ngo Thanh Hoang
Academy of Finance

The thesis will be defended before the Thesis Evaluation Council at
Academy level meeting at Ho Chi Minh National Academy of Politics.

At the 13 hours 00, days 18 month 11 in 2025

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INTRODUCTION

1. Reasons for choosing the topic

Vietnam is a country with relatively rich mineral resources with about 60 different types of minerals. However, up to now, after more than 13 years of implementing the Mineral Law 2010, besides some achievements, the situation of mining activities has not overcome the state of lack of systematic organization. Many types of minerals are still extracted indiscriminately, with low efficiency, especially in terms of socio-economic efficiency, depleting mineral resources. In particular, there are negative impacts on the living environment and safety of residents in the mining area. Dust and untreated waste during the mining process affect health, and even blasting can cause cracks in people's walls or block streams serving fields and crops. Cases of illegal exploitation when the mine's license has expired, such as sand mining on river beds, cause dangerous landslides, etc.

One of the main reasons for the above situation is the weakness in state management of mineral extraction in Vietnam, with many shortcomings that have not been overcome. Although the system of legal documents related to minerals and mining has been issued, it still lacks synchronization, unity and rationality. Authorities, especially at the local level, still focus on GDP growth targets without paying full attention to protecting resources, the environment and ensuring sustainable development. Planning, investment decisions or granting mining licenses have not carefully calculated the costs and benefits to the environment and society. The process of decentralizing management and organizing the implementation of mining activities still has many limitations and shortcomings. Supervision, inspection and examination work has not been carried out strictly and promptly, leading to ineffective prevention and handling of violations in this field. As a result, mineral resources are wasted, economic and social benefits are not commensurate with their actual value, the state budget revenue is very limited, while local communities suffer heavy environmental and social damage.

That requires further strengthening of state management of mining activities in Vietnam. From the above analysis, the author has chosen the research topic: "***State management of mining activities in Vietnam***" as the topic of doctoral thesis.

2. Research questions

Firstly, what is the current status of state management of mining activities in Vietnam in the period of 2018-2023? What results have been achieved and what are the limitations, and what are the causes of those limitations?

Secondly, what solutions does Vietnam need to implement to improve state management of mining activities in the new context in the coming time?

3. Research purpose and tasks

*** Research purpose**

Based on clarifying theoretical and practical issues on state management of mining activities in Vietnam, the thesis puts forward viewpoints and solutions to improve state management of mining activities in Vietnam in the coming time.

*** Research tasks**

Firstly, the thesis clarifies basic theoretical issues on state management of mining activities in Vietnam in the current conditions. Accordingly, it clarifies differences in perception of concepts, characteristics, roles, objectives, contents, and factors affecting state management of mining activities.

Secondly, the thesis analyzes and evaluates the current status and results of implementation of state management functions for mining activities in Vietnam, pointing out the advantages, limitations and causes.

Thirdly, the thesis provides orientations and proposes solutions to improve state management of mining activities in Vietnam in the period from now to 2035.

4. Research subject and scope

*** Research subject**

The research subject of the thesis is determined to be theoretical and practical issues on state management of mining activities in Vietnam.

*** Research scope**

- *Spatial scope*: The thesis studies the state management of mining activities in the territory of Vietnam.

- *Time scope*: Studying the current state management of mining activities in the period from 2018-2023, some contents use data from 2011 - 2023 (after the Mineral Law 2010) to clarify the system and propose orientations and solutions for the period from now to 2035.

- *Content scope*: State management of mining activities will be approached from the functional aspect. In which, the management subject limited to the scope of the thesis is the executive agency, performing administrative functions at the Central level (the Government and advisory agency, which is the Ministry of Agriculture and Environment (under the function of the Ministry of Natural Resources and Environment before March 1, 2025), relevant ministries and ministerial-level agencies) and local level (People's Committee according to 3 levels: province, district, commune but the thesis only focuses on provincial people's committees). The thesis mentions the role of the National Assembly in promulgating the constitution, laws, and resolutions. It does not mention judicial agencies.

Regarding the scope of research content: State management of mining activities in Vietnam, but the thesis only focuses on State management of mining activities, mainly excavation activities, not on mining activities such as: mineral exploitation; oil and gas extraction; extraction of natural water other than mineral water, natural hot water.

The thesis studies the contents of State management of mining activities in Vietnam in relation to the overall State management of mineral activities in general. From the content perspective, State management of mining activities limited within the scope of the thesis includes the following functions: (i) promulgation and dissemination of legal documents on mining activities; (ii) development of mining planning; (iii) organization of implementation of mining planning and policies; (iv) organization of state management apparatus for mining

activities and (v) inspection, examination, supervision and handling of violations in mining activities.

5. Research methodology

5.1. Methodology

Regarding methodology, the arguments, assumptions and analytical explanations in the thesis are presented on the basis of dialectical materialism and historical materialism methodology of Marxist-Leninist philosophy, Marxist-Leninist political economy, Ho Chi Minh's Ideology, the viewpoints and legal system of the Party and State on state management of mining activities.

5.2. Data collection and processing methods

5.2.1. Data collection methods

* Secondary data collection

Secondary data are compiled from documents such as reports of the Government, the Ministry of Agriculture and Environment, the Vietnam General Department of Geology and Minerals (before March 1, 2025, it is the Vietnam General Department of Geology and Minerals under the Ministry of Natural Resources and Environment, separated from Department of Geology of Vietnam and Department of Mineral Resources of Vietnam before) and relevant authorities; books, magazines, legal documents, internet,... related to the research topic which have been published.

* Primary data collection

+ Selection of research sites:

The doctoral candidate selected 5 provinces and cities with characteristics of common minerals with high applicability, usage value, economic value and large exploration reserves of that type of mineral compared to the whole country: Quang Ninh Province (coal); Lao Cai Province (Apatite); Nghe An Province (marble); Binh Thuan Province (titanium minerals); Dak Nong Province (Bauxite).

+ Determination of research sample:

The thesis conducted a survey of mining enterprises and state management officials on mining activities with 2 questionnaires and the total number of questionnaires of the 2 samples is specifically as follows:

- For mining enterprises: 97 questionnaires for 97 enterprises in 5 provinces selected for the research

Sample size is determined according to Linus Yamane's sample size formula (1967-1986):

$$n = \frac{N}{1+N(e)^2}$$

In which: n: number of samples to be determined

N: sample population

e: standard error

With a total number of 2,890 enterprises operating in mining nationwide as of 2023 with 3,416 mining licenses (according to the synthesis of state management reports of provinces in 2023), the error rate is 10%, equivalent to +/- 0.1, we have the number the sample size to be selected is:

$$n = 2,890/(1+2,890*0.01) = 97 \text{ questionnaires (rounded).}$$

The total number of 97 survey questionnaires for 97 enterprises of 5 provinces selected for research sites is divided according to the specific number as follows: Quang Ninh: 22; Lao Cai: 12; Nghe An: 41; Binh Thuan: 16; Dak Nong: 6.

- For state management officials for mining activities: 47 questionnaires

+ Department of Mineral Resources of Vietnam: 32 questionnaires

+ Departments of Natural Resources and Environment of 5 provinces selected for research sites: 15 questionnaires

Each surveyed province has 3 questionnaires including: 1 questionnaire for the representative of the Department's leadership; 2 questionnaires for officials of the Department's Mineral Division.

+ **Sample selection method:** The thesis uses the simple random sampling method.

+ Questionnaire structure:

The thesis uses the Likert scale (05 levels) of Rensis Likert (1932) to measure the level of agreement of the research subjects, ranging from: strongly disagree to strongly agree. The observed variables in the study when using this scale have a choice of scores from 1 to 5 (1. Completely disagree; 2. Disagree; 3. Neutral; 4. Agree; 5. Strongly agree).

* For the 5-level Likert scale in the survey questionnaire, the distance value is calculated as follows:

$$\begin{aligned} \text{Distance value} &= (\text{Maximum value} - \text{Minimum value})/n \\ &= (5 - 1)/5 = 0.8 \end{aligned}$$

Then, the meaning of the levels is as follows:

- From 1.00 - 1.80: Strongly disagree
- From 1.81 - 2.60: Disagree
- From 2.61 - 3.40: No opinion (Neutral)
- From 3.41 - 4.20: Agree
- From 4.21 - 5.00: Strongly agree

5.2.2. Method of data synthesis and analysis

+ Synthesis of published data and information: Based on published data, synthesis and comparison are performed to select data that is suitable for the research direction of the topic.

+ Processing of survey data: All survey data are processed and quantified on the computer, using Microsoft Excel software to calculate the average index of secondary data and the average value of primary data.

6. New scientific contributions of the thesis

*** Theoretical contributions**

Building a theoretical analysis framework on state management of central and local governments for mining activities in Vietnam in accordance with the market economy and current laws in Vietnam.

*** Practical contributions**

- Collecting and analyzing experience of China and Australia in state management of mining activities and drawing 5 lessons for Vietnam.

- The thesis analyzes state management of mining activities in Vietnam in the period of 2018 - 2023, draws out the achieved results, shortcomings, limitations and

points out 2 groups of causes of these weaknesses in the implementation of 5 state management functions: (i) promulgation and dissemination of legal documents on mining activities; (ii) development of mining planning; (iii) organization of implementation of mining planning and policies; (iv) organization of state management apparatus for mining activities and (v) inspection, examination, supervision and handling of violations in mining activities.

- Proposing a system of 7 orientations and 7 groups of solutions to continue to innovate and improve state management of mining activities in the period from now to 2035.

7. Structure of the thesis

In addition to the introduction, conclusion and recommendations, list of references, appendix, the thesis content is structured in 4 chapters.

Chapter 1

OVERVIEW OF STUDIES RELATED TO STATE MANAGEMENT OF MINING ACTIVITIES

1.1. STUDIES RELATED TO MINERAL ACTIVITIES IN GENERAL

Mineral activities with activities of exploration, extraction, processing, and use are mentioned by many studies in the world as well as in Vietnam with quite diverse and rich aspects, from legal to economic efficiency, environmental and social impacts, etc.

The issue of ownership of mineral resources in countries was analyzed by author Le Thanh Van (2010) in the study "*Ownership of mineral resources and issues that need to be improved*" which analyzed two main approaches to ownership of mineral resources in the world. The economic aspect in mining was mentioned by many authors such as: Tran Thanh Thuy (2015); Dong Thi Bich (2017), Ngo Kim Tu (2022) or author Vu Thanh Huong (2020) in the study "*Assessing allocation of Vietnam's mineral resources from economic and policy perspectives*" which analyzed the current status of mineral resource allocation over time and by economic sector.

Many studies on techniques to improve efficiency in mining such as author Vo Ngoc Dung (2016) with "*Research on applicability of 3D ground laser scanners in construction management - underground mining*"; Nguyen Xuan Tang et al. (2022) analyzed the current status of mining for many years in mines such as coal mines in Quang Ninh, tin mines in Nghe An, tin mines in Cao Bang, ... and proposed solutions. Or application of science and technology in mining was also mentioned by Amit Kumar Mishra (2021) in "*A Review of the Applications of AI in Mineral Processing*" which pointed out the possibilities of using AI to solve the challenges in mining. Or the issue of conflicts in mining between enterprises and local communities was also mentioned by Saleem H. Ali (2009) in "*Mining, the Environment, and Indigenous Development Conflicts*" which analyzed the

conflicts arising between mining activities and the rights of indigenous communities in regions in South America and Australia; Gavin Hilson (2011) provided a perspective on mining management with a focus on the impact of mining on local communities in the study "*The Political Ecology of Mining: Community-based Perspectives on Resource Extraction*".

1.2. STUDIES RELATED TO STATE MANAGEMENT OF MINING ACTIVITIES

1.2.1. Research situation related to state management function for mining activities

* *Regarding the function of promulgating and disseminating legal documents on mining*

The studies focus on the issue of improving the legality and effectiveness of the Mineral Law as well as related regulations and policies, typically: Author Le Ai Thu (2013), in the study "*Research and establishment of scientific and practical basis for amending the Mineral Law*"; Author Lai Hong Thanh (2013) in "*Report on the results of reviewing the legal corridor on transparency in mining activities in Vietnam*"; or Nguyen Canh Nam (2016) in "*Inadequacies of the Law on Natural Resources Tax, guiding documents for the mineral sector and proposed amendments*" which evaluated the Law on Natural Resources Tax based on factors such as mineral resource potential, characteristics of the mining industry, tax structure and policies of the Party and State.

In addition, many authors also mentioned specific documents and policies governing mining activities, such as author Le Thi Thanh Huong (2018) in the study "*Laws on granting and revoking mining licenses in Vietnam*" or the study "*Global Trends and Tribulations in Mining Regulation*" by John P. Williams (2015), the study "*Mining and Sustainable Development: Insights from International Law*" by Philippe Sands and Jacqueline Peel (2012) which clarified, with an in-depth perspective, the role of international law in ensuring sustainable mining.

* *Regarding the function of mining planning*

This aspect has been mentioned by researchers from the perspective of proposing some national planning models to optimize resource use, proposing principles for planning, technical aspects in planning, some issues that need attention in planning such as: overlap, conflict avoidance, optimal exploitation, etc. Some typical authors are: Author Peter G. Harris (2010) in the study "*Strategic Planning for Sustainable Mineral Resource Development: A Systems Thinking Approach*"; Rodrigo Martinez and Luis A. Vargas (2014) in the study "*Challenges and Opportunities in Strategic Mineral Resource Planning*"; Le Van Quang (2020) with the article "Master plan for mining and sustainable use of mineral resources in Vietnam". Or the study "Assessing the impact of mining planning on the environment in Vietnam" by author Phan Van Hoa (2017), ...

*** Regarding the function of organizing the implementation of mining planning and policies**

- Studies related to the granting of mining licenses, determining the fee for granting mining rights and organizing auctions of mining rights

- Regarding implementation of social responsibility, environmental protection management at mining sites

*** Regarding organization of state management apparatus for mining activities**

For this content, most domestic and foreign researchers see the important role of organization of state management apparatus for mineral activities, including mining activities, especially the coordination and decentralization of activities within the apparatus and the capacity of the staff doing this work. Typically, author Dinh Doan Cuong (2021) in the study "*Solutions to improve the control environment at coal mining and processing enterprises under Vietnam National Coal and Mineral Industries Holding Corporation Limited*"; author Nguyen Thi Nhu Quynh (2023) et al. in the research topic "*Research on theoretical and practical bases to propose the division and decentralization between the central and local levels in state management of water resources, geological resources, and minerals*".

Many authors mentioned the team of officials working in mining management in their articles, typically: Author Tran Quoc Hung (2018); Le Thi Thao (2019),... the authors all analyzed the current situation of improving quality of the staff working in state management of mining activities in different aspects such as training, fostering, improving the effectiveness of this work in the context of integration or the impact of objective and subjective factors,... and from which, the studies proposed solutions to improve the effectiveness of the staff working in the field of mining.

*** Regarding the function of inspection, examination, supervision and handling of violations in mining activities**

The content of inspection, examination and supervision of mining activities has also been mentioned by some authors with two basic research directions: based on analysis of the current situation of this work, proposing solutions to improve the effectiveness of inspection, examination and supervision of this activity or studying some technical applications in mining supervision such as author Do Van Hoa (2020) in the study "*Current situation and solutions to improve the effectiveness of inspection and examination of mining*", author Oluranti Agboola et al. (2021) with the article "*A review on the impact of mining operation: Monitoring, assessment and management*"; Pham Quoc Bao (2018) with the study "*Assessing the effectiveness of inspection and handling of violations in mining in Vietnam*", ...

1.2.2. Studies on methods and tools of state management of mining

There are many methods of state management with different tools to regulate mining activities in accordance with the National Strategy and objectives that have been mentioned by domestic and foreign authors in their studies. The combined Legal - Economic - Technological management model is shown in the World Bank Report (2020) - "*Integrated resource governance for sustainable development*". Meanwhile, Hilson (2020) proposed the public-private partnership (PPP) model as a new management solution to address challenges in mining, especially in developing countries in the study "*Partnerships in mining: Enhancing public - private collaboration for sustainable resource management*". Or author Do Thi Binh (2019) focused on management methods in the article "*Regional state management in mining in Vietnam*".

Regarding the tools for State management of mining activities, the works have mentioned legal tools, economic tools, technological tools, etc. in many different aspects.

1.2.3. Studies on factors affecting State management of mining activities

Many authors have emphasized impact of the legal framework, the national policy system in this field such as the system of legal documents, evaluation criteria such as the study "*Building a set of audit criteria to evaluate the economy, effectiveness, and efficiency in mining management activities*" by Nguyen Xuan Khai and Le Doan Hoai; "*Policy framework for sustainable mineral resource management in Vietnam*" by Tran Quoc Hung et al. (2019). Considering the mineral policy system as a factor affecting the effectiveness of State management, the authors Arezki Rabah and Thorvaldur Gylfason (2011) emphasized fiscal policy in the study "*The Resource Curse and Fiscal Policy: The Example of Norway*"; Hoang Thi Thu Ha (2022) in "*Tax and fee policies in mining in Vietnam*". Or community awareness and participation in management and technical factors are also factors affecting state management of mining activities, mentioned by the authors Nguyen Thi Lan and Le Hoang Anh (2020) and the author Glen T. Nwaila et al. (2022) in the study "*The minerals industry in the era of digital transition: An energy-efficient and environmentally conscious approach*".

Thus, the issue of state management of mining activities has been mentioned by domestic and foreign authors from many different aspects: the role, function, method, and tools of state management, and the factors affecting this management process. Each content is mentioned and exploited by studies from different perspectives, but all aim to improve the effectiveness of state management of mineral resources in countries.

1.3. GENERAL EVALUATION OF STUDIES RELATED TO STATE MANAGEMENT OF MINING ACTIVITIES

1.3.1. Issues Clarified by Studies

Studies have clarified several aspects of mineral activities, including the stages of exploration, exploitation, processing, and use. The topics analyzed

include: mineral ownership models in different countries; the protection of unexploited mineral reserves; transparency initiatives in mineral exploitation; the evaluation of mineral resource distribution in Vietnam; and community conflicts arising from mineral exploitation;...

Studies have also analyzed the current state of state management of mining activities in specific localities such as Son La and Tuyen Quang. They have identified inadequacies in the Law on Natural Resource Tax and its guiding documents, challenges in formulating mineral resource master plans, and existing issues and solutions for the inspection, examination, and supervision of mining activities,...

Many studies have examined the experience of other countries regarding mineral exploitation, focusing on the economic valuation of mineral resources, mitigating environmental impact in mining areas, and financial policies related to mineral exploitation, processing, and use,...

The issue of environmental protection during the extraction process has been mentioned and analyzed from various angles in many studies, primarily focusing on the impact of mineral exploitation on water, land, and air resources. These studies subsequently propose measures for mitigation and risk management.

Additionally, academic works have analyzed specific aspects of state management of mineral exploitation, such as the planning process, the environmental impact of such plans, the improvement of relevant laws, and the organizational structure of the mineral activity management apparatus,...

Comparative analyses of international experiences (from countries like the Philippines, Nigeria, Indonesia, and various African nations) have also been conducted. These studies have compared financial policies, the economic valuation of mineral reserves, and the link between mineral exploitation and sustainable environmental protection to draw lessons for Vietnam.

Beyond the state's role and function, studies have also identified and clarified the methods and tools for managing these activities. This includes combined management models such as Legal-Economic-Technological approaches or public-private partnerships.

The factors influencing state management of mining activities have also been explored, including the related policy framework, community awareness and participation, technological levels, and the organizational structure of the management apparatus.

1.3.2. Research Gaps

+ *The studies have not comprehensively addressed the functions of state management of mining activities in Vietnam.*

+ *The promulgation and dissemination of related legal documents have been analyzed only to a certain extent.*

+ *The function of mineral exploitation planning has not directly focused on*

extraction activities but has instead referred to general mineral activity planning.

+ The specific details of the process for organizing the implementation of mineral exploitation plans have not been fully and specifically addressed.

+ The inspection of mining activities has only been mentioned in relation to other topics in previous studies.

1.3.3. Issues Selected for the Thesis Research and the Analytical Framework

1.3.3.1. Issues Selected for the Thesis Research

The thesis approaches the research according to the functions of state management of mining activities in Vietnam, which include:

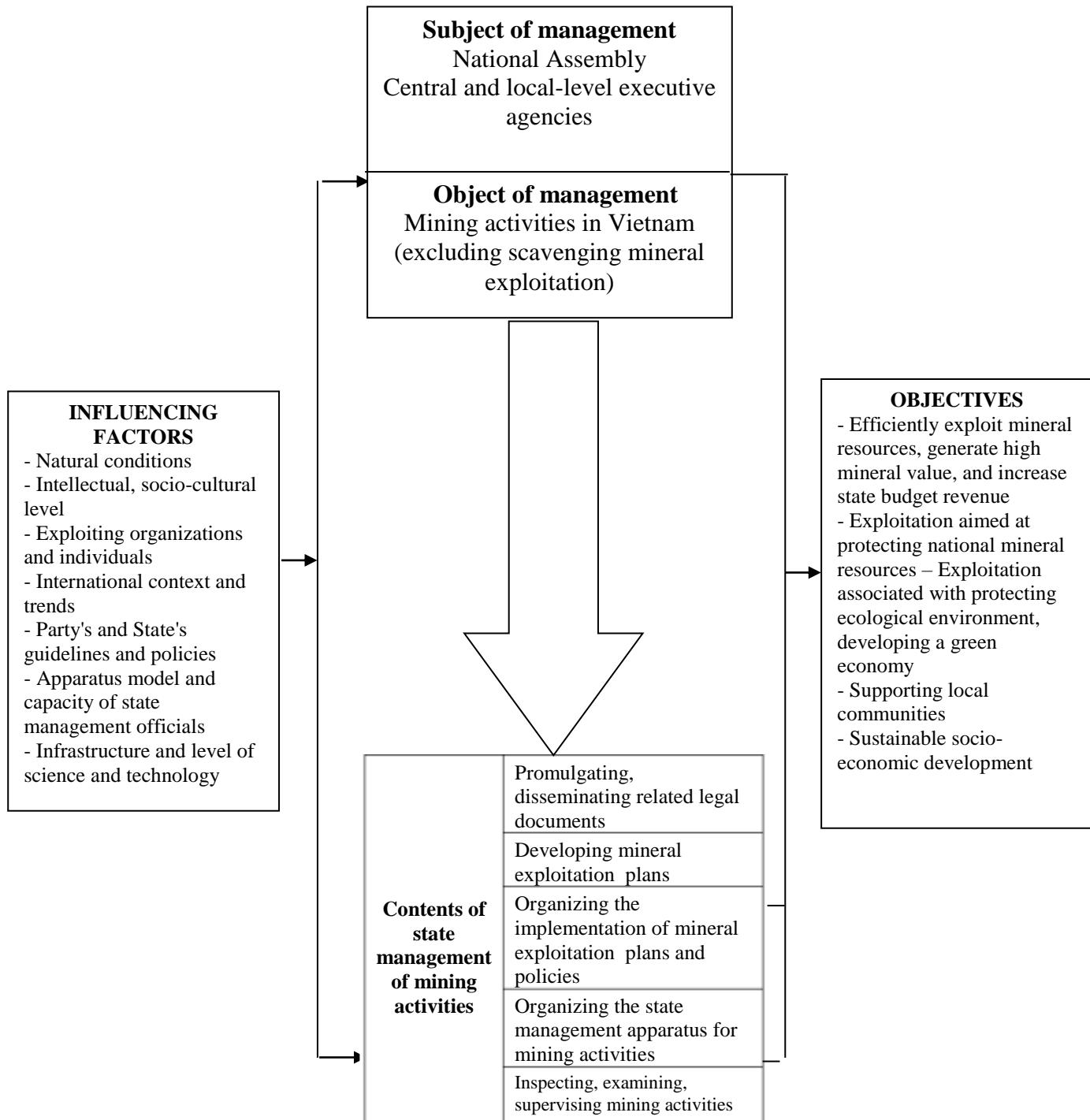
(1) The function of promulgating, disseminating, and publicizing legal normative documents on mineral exploitation; (2) The function of developing mineral exploitation plans; (3) The function of organizing the implementation of mineral exploitation plans and policies (issuing mineral exploitation licenses, organizing auctions for mineral exploitation rights; managing the fulfillment of financial obligations of mineral exploitation organizations and individuals (determining the fee for mineral exploitation rights, natural resource tax, environmental protection fees); managing the fulfillment of social responsibility in extraction (environmental protection deposits, environmental protection, support for local communities)); (4) The function of organizing the state management apparatus for mineral exploitation activities; (5) The function of inspecting, examining, supervising, and handling violations of mineral exploitation activities.

The thesis clarifies the theoretical basis of state management of mining activities using its analytical framework, following the five state management functions identified above. It clarifies the relative independence between the state management of mineral exploitation and the state management of mineral activities in general (including exploration, extraction, processing, and use), and specifically analyzes the factors influencing this work.

Based on the theoretical foundation of the contents of state management of mining activities, the thesis comprehensively and fully analyzes the current state of state management of mining activities in Vietnam according to the five functional contents: promulgating and disseminating relevant legal documents, the work of developing mineral exploitation plans, and organizing their implementation; organizing the state management apparatus for mining activities; and inspection, examination, and supervision. For the function of organizing the implementation of mineral exploitation plans and policies, the thesis will fully analyze and evaluate aspects including: the work of issuing mineral exploitation licenses, organizing auctions for mineral exploitation rights, and managing the fulfillment of financial obligations and social responsibilities of mineral exploitation organizations and individuals, using both secondary data and primary data from surveys and investigations.

The thesis forecasts the situation, analyzes the current context, and from there, studies orientations and proposes fundamental solutions to enhance the effectiveness of state management of mining activities, suitable for Vietnam's current conditions and resources.

1.3.3.2. Analytical Framework of the Thesis



Chapter 2

THEORETICAL BASIS AND EXPERIENCE ON STATE MANAGEMENT OF MINING ACTIVITIES

2.1. GENERAL THEORIES ON MINERALS AND MINING ACTIVITIES

2.1.1. Concepts of Minerals and Mining Activities

** Mineral*

A mineral is a natural, inorganic substance or chemical compound found in solid, liquid, or gaseous form, which accumulates in or on the Earth's crust as a result of geological processes. It is exploited and processed by humans to serve the needs of society and national socio-economic development.

** Mining activities*

Mining activities are the processes by which organizations and individuals, under state management, extract minerals from the ground, transforming them into valuable commodities. These activities bring benefits to the organizations and individuals involved and contribute to the socio-economic development of a locality and the nation over certain periods.

2.1.2. Characteristics, Classification of Minerals and the Role of Mining Activities

2.1.2.1. *Characteristics, Classification of Minerals*

2.1.2.2. *Role of Mining Activities*

2.2. THEORIES ON STATE MANAGEMENT OF MINING ACTIVITIES

2.2.1. Concept of State Management of Mining Activities

State management of mining activities is the sum of activities carried out by central and local government agencies. These agencies, with functions decentralized by the Law on Minerals, guide the mineral resource exploitation activities of relevant organizations, enterprises, and individuals to align with sustainable development goals.

2.2.2. Methods of State Management of Mining Activities

2.2.3. Objectives and Criteria for Evaluating the Implementation of State Management of Mining Activities

** Overall Objective*

The overall objective of state management of mining activities in Vietnam is to aim for the efficient exploitation of mineral resources, ensuring high economic value and contributing to economic growth and national budget revenue. This also involves protecting mineral resources from waste and depletion, strictly enforcing environmental protection regulations, and minimizing negative impacts on ecosystems and public health. This approach aims to build Vietnam's mining industry toward sustainable development, harmonizing economic, social, and environmental benefits.

** Specific Objectives*

- + *Efficiently exploiting, bringing high economic value, and promoting the potential of mineral resources.*
- + *Mineral exploitation aimed at protecting national mineral resources.*
- + *Exploitation associated with ecological environmental protection, developing in line with the green economy trend.*
- + *The objective of supporting the community and society, especially localities with mineral exploitation sites.*

2.2.4. Contents of State Management of Mining Activities

2.2.4.1. *Promulgation and dissemination of legal normative documents on*

mining activities

**** Regarding the promulgation of legal normative documents***

The promulgation of legal documents related to mineral exploitation is a crucial factor in national resource management. These legal regulations not only help the state strictly and comprehensively manage the mineral exploitation process but also protect the rights of relevant parties, from organizations and enterprises to the community.

**** Regarding the dissemination of state policies and laws on mineral exploitation***

Disseminating laws on mineral exploitation is an important activity carried out by the state to communicate information about legal regulations related to mineral exploitation to organizations, enterprises, and communities living in areas with mining activities.

2.2.4.2. Developing mineral exploitation plans

An appropriate mineral exploitation plan helps to coordinate extraction activities, has significant economic implications, and directly impacts energy security policies, raw material supply for industries, and ecological environmental protection.

Regarding the responsibility for developing mineral exploitation plans, it is specifically decentralized:

The Ministry of Natural Resources and Environment is responsible for developing and appraising national-level mineral exploitation plans and formulating related policies and legal regulations.

The Provincial People's Committee implements the mineral exploitation plan at the local level, ensuring that mining activities are aligned with the province's socio-economic development and environmental protection plan.

2.2.4.3. Organizing the implementation of plans and policies on mining activities

**** The work of licensing mining activities***

Licensing mining activities is a process in which competent state management agencies approve and permit organizations and individuals to carry out activities related to mineral resource extraction. Licensing not only ensures the controlled use of mineral resources but also helps to control the negative impacts of mining activities on the environment and the surrounding communities where the mine is located.

**** The work of organizing auctions for mineral exploitation rights***

Auctioning mineral exploitation rights is a public, transparent process for organizations and individuals to compete on price to win the right to exploit state-managed mineral deposits. This mechanism ensures that organizations or individuals with the best potential and exploitation capacity are granted the extraction right at a reasonable cost, while also generating revenue for the state budget and managing exploitation more effectively.

Because the auction process is prone to risks of fraud, collusion, or undervaluation, management agencies need to strictly control the auction procedure. On the other hand, it is necessary to correctly value the mineral deposit as it directly affects the state budget revenue.

**** The work of managing the fulfillment of financial obligations and social responsibilities from mining activities***

+ *Regarding the fulfillment of financial obligations*

Depending on each country, organizations and individuals fulfill different financial obligations for mining activities, but generally there are basic financial items such as:

Natural resource tax; fee for mineral exploitation rights; environmental protection fee in mineral exploitation; environmental rehabilitation deposits; and other related fees and charges.

+ *Regarding social responsibility*

2.2.4.4. Organizing the state management apparatus for mining activities

The role of the state management apparatus for mining activities is to protect mineral resources along with the ecological environment. The state management apparatus at all levels from the Central to local government must ensure that mining activities do not cause negative impacts on the environment and the lives of people around the mining area,...

State management officials for mining activities play a very important role in the development of the industry. This is the team that determines the effectiveness and efficiency of the state management apparatus for mining activities of all levels of government.

2.2.4.5. Inspection, examination, supervision, and handling of violations of mining activities

Inspection and examination of mining activities are an indispensable content of state management of mining activities, being the final stage in the management cycle, with the role of verifying and evaluating the effectiveness of state management. Inspection and examination of mining activities help ensure the quality of professional performance of different agencies in the state management apparatus for this activity, helping to prevent, deter, detect, and handle limitations and violations. Through inspection and examination, it serves as a basis for making recommendations to fix loopholes, weaknesses, and propose innovative measures and policy amendments to manage mining activities more effectively.

2.2.5. Factors influencing state management of mining activities

2.2.5.1. Objective factors

+ *Geographical location and natural conditions*

+ *Characteristics of intellectual, cultural, and social levels*

+ *Organizations and individuals participating in mineral exploitation*

+ *International context and trends*

2.2.5.2. Subjective factors

+ *The Party's and State's guidelines and policies on socio-economic development in general and the field of mineral resources in particular*

+ *The organizational model of the apparatus and the capacity of the team of officials in charge of state management of mining activities*

+ *Technical infrastructure and level of science and technology*

2.3. EXPERIENCE IN STATE MANAGEMENT OF MINING ACTIVITIES IN SOME COUNTRIES AROUND THE WORLD AND LESSONS FOR VIETNAM

2.3.1. Experience of some countries

2.3.1.1. Experience of state management of mining activities in China

2.3.1.2. Experience of state management of mining activities in Australia

2.3.2. Lessons Learned for Vietnam

Firstly, regarding the function of promulgating and disseminating legal

documents related to state management of mining activities.

Secondly, regarding the function of developing mineral exploitation plans and schemes.

Thirdly, regarding the function of organizing the implementation of mineral exploitation plans and schemes.

Fourthly, regarding the organization of the state management apparatus for mining activities.

Fifthly, regarding the function of inspecting, examining, supervising, and handling violations of mining activities.

Chapter 3

CURRENT SITUATION OF STATE MANAGEMENT OF MINING ACTIVITIES IN VIETNAM

3.1. OVERVIEW OF MINING ACTIVITIES IN VIETNAM

3.1.1. Characteristics of Mineral Resources in Vietnam

3.1.2. Formation and Development Process of Vietnam's Mineral Industry

3.1.2.1. On the history of formation and development

3.1.2.2. On the process of perfecting state management of mining activities

3.1.3. Current situation of mineral activities in Vietnam

3.1.3.1. The work of geological mapping and investigating mineral potential

3.1.3.2. Mineral exploration activities

3.1.3.3. Mining activities

3.2. CURRENT SITUATION OF THE IMPLEMENTATION OF STATE MANAGEMENT FUNCTIONS FOR MINING ACTIVITIES IN VIETNAM

3.2.1. Current situation of promulgating and disseminating legal normative documents on mining activities

3.2.1.1. Regarding the promulgation of legal normative documents

The completion of the legal system with normative and guiding documents from the central to local levels has created a solid legal foundation to enhance the effectiveness and efficiency of state management of mining activities.

However, the promulgation of legal normative documents on mining activities by all levels of government from the Central to local levels still has limitations and inadequacies shown in the practical implementation process, which need to be addressed.

3.2.1.2. Regarding the dissemination of state policies and laws on mineral exploitation

With the survey results on this content, the overall average score is 3.78, within the range of 3.41 - 4.2, with the meaning of "agreed," demonstrating that the enterprises' evaluation of the promulgation and dissemination of legal documents on mining activities is good. However, the evaluation of both management officials and enterprises has not reached the level of 4.21 - 5.00 points, showing that there are still certain limitations in this work, which require a clear understanding and proposed solutions for improvement.

3.2.2. Current situation of developing mineral exploitation plans

Mineral planning includes geological investigation planning for minerals

and planning for mineral exploration, extraction, and use. According to the 2024 Law on Geology and Minerals, mineral planning, which includes extraction activities, will have Group I and Group II mineral plans (national sectoral plans) and integrate Group III minerals into provincial plans. All types of plans aim to effectively and correctly implement the National Geological and Mineral Development Strategy's goals at each stage. The achievements and limitations in mineral exploitation planning work, as analyzed above, are also reflected through the enterprises' evaluation that the public disclosure of planning information for organizations and individuals to grasp in a timely manner is quite high. However, the synchronicity in planning development still has many inadequacies, with the survey result only reaching 2.93 points. As many as 5 enterprises strongly disagreed and 6 enterprises disagreed with the synchronicity of mineral planning with other plans, and only 9 enterprises believed that this synchronicity exists.

3.2.3. Current situation of organizing the implementation of plans and policies on mining activities

3.2.3.1. The work of licensing mining activities

* The work of mineral exploitation licensing by the Central level

Table 3.12: Number of MINERAL exploitation licenses issued by the Ministry of NATURAL RESOURCES AND ENVIRONMENT during the period 2018 - 2023

	Year 2018	Year 2019	Year 2020	Year 2021	Year 2022	Year 2023
Number of new licenses issued	24	34	32	13	28	7
Number of licenses extended/transferred	11	13	9	7	11	17
Total licenses	35	47	41	20	39	24

Source: The doctoral student's own compilation based on reports from the Ministry of Natural Resources and Environment and the Vietnam General Department of Minerals

The work of mineral exploitation licensing by the local level

Table 3.13. Number of decisions related to licensing and closing mineral exploitation mines issued by the Provincial People's Committee during the period 2018 - 2023

	Year 2018	Year 2019	Year 2020	Year 2021	Year 2022	Year 2023
Decision on license issuance (decision)	488	467	450	404	333	342
Decision on license revocation/return (decision)	24	26	11	27	16	13
Decision on mine closure (decision)	119	85	83	89	77	70

Source: The doctoral student's own compilation based on reports from the Ministry of Natural Resources and Environment and the Vietnam General Department of Minerals

3.2.3.2. The work of organizing auctions for mineral exploitation rights

At the central level, as of December 31, 2023, the Ministry of Natural Resources and Environment had approved the plan to auction mineral exploitation

rights for 20 areas, successfully auctioning 10 areas including deposits such as iron ore in Bac Kan, apatite ore in Lao Cai, and fine art stone deposits in Yen Bai,... the winning bid prices exceeded the starting prices, reflecting the competitiveness in the auction activities.

To enhance the effectiveness of the auction work, the Ministry of Natural Resources and Environment has requested Provincial People's Committees to strengthen the dissemination of laws, helping relevant enterprises and individuals fully grasp the regulations. In recent times, the Provincial People's Committees have developed and implemented many suitable auction organization plans. A typical example is the application of direct ballot voting at auction sessions with a reasonable organizational procedure. This form not only helps shorten the implementation time but also is suitable for the financial capacity of enterprises and ensures investment efficiency.

These solutions have contributed to creating fairness, transparency, and encouraging the participation of many enterprises in the mineral exploitation sector.

With a process compliant with regulations, as of 2023, the local level nationwide had approved auctions for 1,310 mineral areas, of which 827 areas were successful.

Despite achieving some results, the auctioning of mineral exploitation rights is still not commensurate with the potential because the auction regulations are new, the implementation is not synchronized, and it is not fully consistent with regulations on land and auctioned assets. The number of mineral areas offered for auction only reached 52.23% compared to the approved plan.

In addition, the coordination between ministries, sectors, and localities is not yet synchronized, making handling difficult. Disagreements in land policy under the Law on Land also create inequality between central and provincial-level licensed projects.

3.2.3.3. The work of managing the fulfillment of financial obligations of organizations and individuals participating in mining activities

** Regarding the approval and collection of fees for mineral exploitation rights*

Table 3.15: Results of collecting fees for mineral exploitation rights during the period 2018 - 2023

	Year 2018	Year 2019	Year 2020	Year 2021	Year 2022	Year 2023
Number of decisions approving fees for extraction rights	47	47	31	11	62	9
Total approved fee for extraction rights (billion VND)	2,954	2,381	914,4	1,044	1,300	2,143
Total fees for extraction rights submitted to the state budget (billion VND)	Central	2,023	3,138	2,849	3,117	1,633
	Local	892	1,642	1,660	1,880	975
						2,574

Source: The doctoral student's own compilation based on reports from the Ministry of Natural Resources and Environment and the Vietnam General Department of Minerals

Managing the fulfillment of other financial obligations of organizations and individuals

The results of the survey of officials on the fulfillment of this obligation by

enterprises, with an average score of the indicators being 3.79, in the range of 3.41 - 4.2, show that the surveyed officials highly evaluated, with the meaning of "agree," the management of the fulfillment of financial obligations by mineral exploitation enterprises by relevant functional agencies, including the Ministry of Natural Resources and Environment, the General Department of Taxation, the Department of Natural Resources and Environment,... at the local level.

Although certain results have been achieved and are highly evaluated, this work still has some practical difficulties and limitations

3.2.3.4. The work of managing the fulfillment of social responsibility by organizations and individuals participating in mineral exploitation

+ Responsibility for the environment

In addition to the regulations in the Law on Minerals, the Government also issued a specific Decree to strengthen management in this work. Decree 40/2019/NĐ-CP amending and supplementing some regulations on improving environmental quality, which were regulated in Decree No. 19/2015/NĐ-CP dated February 14, 2015, was issued by the Government to amend and supplement regulations on the subjects required to develop an environmental improvement and rehabilitation plan in mineral exploitation. The subjects must develop an environmental improvement and rehabilitation plan and submit it to a competent authority for approval.

Based on the regulatory documents and implementation guidance from the Central government, in recent years, local government functional agencies have also actively required mineral exploitation enterprises to make environmental protection deposits as regulated. This helps raise the sense of responsibility of enterprises regarding environmental protection during their extraction activities.

Besides the achievements, this work still has certain limitations. The coordination between relevant agencies in managing organizations and individuals responsible for the environment in mineral exploitation is still loose, leading to some units being late in making environmental protection deposits.

The issue of ensuring environmental protection in extraction has not been thoroughly resolved. A typical example is the sand mining activities from riverbeds across the country, especially in the South.

+ Responsibility towards the community residing in the area with the mine

Table 3.17: Results of support for the people and social welfare for localities with mineral exploitation mines by exploiting organizations and individuals during the period 2018 - 2023

	Year 2018	Year 2019	Year 2020	Year 2021	Year 2022	Year 2023
Number of local workers with stable employment at the mine (thousand people)	127	129	136	123	121.8	128.742
Support for local infrastructure and welfare (billion VND)	288	122	118	164	141	120.579

Source: The doctoral student's own compilation from annual reports of the Ministry of Natural Resources and Environment

Mineral exploitation activities not only contribute to increasing state budget revenue but also create many stable job opportunities for local people.

3.2.4. Organizing the state management apparatus for mining activities

3.2.4.1. Regarding the organizational structure of the apparatus

The state management apparatus for mining activities in Vietnam can be modeled through the following diagram:

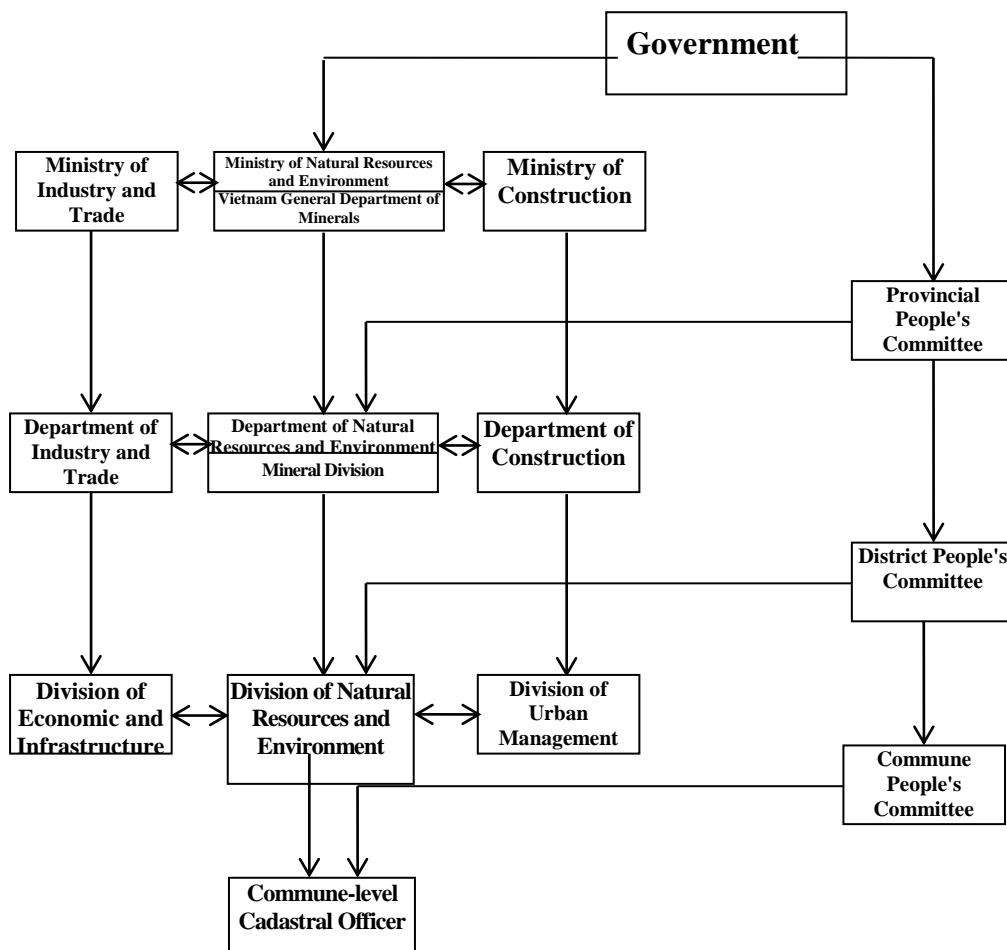


Diagram 3.1. State management apparatus for mining activities in Vietnam

Table 3.18: Officials' evaluation of the state management apparatus for mining activities

Indicator	Evaluation level					Average score
	1	2	3	4	5	
The state management apparatus for mineral activities is rationally organized and clearly decentralized	0	0	14	28	5	3.81
The apparatus for managing mineral activities operates effectively and responsibly	1	4	13	29	0	3.47
Functions and duties of the State management apparatus for mineral exploitation are highly decentralized to local governments	2	7	24	14	0	3.06

Source: Survey results of the doctoral student

3.2.4.1. The team of state management officials for mining activities

At the Central level, the Vietnam General Department of Minerals - a specialized agency under the Ministry of Natural Resources and Environment, currently has a total of 74 officials and public employees and 10 contract workers, of which: There are 04 Department leaders; the Office has 04 officials, 10 public employees; the Division of Mineral Activity Dossier Appraisal has 03 officials, 09 public employees; the Division of Mineral Activities Control has 03 officials, 09 public employees; the Division of Planning - Finance and Mineral Economics has 02 officials, 07 public employees; the Central Region Mineral Sub-Department (in Da Nang City) has 02 officials, 07 public employees; the Southern Region Mineral Sub-Department (in Ho Chi Minh City) has 02 officials, 08 public employees.

At the provincial level, each mineral division/mineral resources division of the Department of Natural Resources and Environment is assigned approximately 3 - 7 officials and public employees depending on the workload (due to the specific scale of mineral resources in each locality) and the structure of each unit. For the district level, there are usually 1-2 officials from the Division of Natural Resources and Environment assigned to be in charge of mineral resource activities or concurrently holding other positions. At the commune level, there is a commune-level cadastral official who is concurrently in charge of managing mineral activities in the area (in areas with mineral reserves).

The survey results of enterprises on the state management apparatus for mining activities show that the overall average score of the criteria is 3.47, within the range of 3.41 - 4.2 with the meaning of "agreed" on the achievements in the organizational structure of the apparatus and the team of state management officials for mining activities. This is an important basis and factor to enhance the effectiveness of the state management of this activity in our country in the coming time.

3.2.5. Inspection, examination, supervision and handling of violations in mining activities

3.2.5.1. Inspection, examination, supervision and handling of violations implemented by Ministry of Natural Resources and Environment, Vietnam General Department of Minerals

Table 3.20. Inspection and examination related to mining activities of the Ministry of Natural Resources and Environment in the period 2018-2023

Year	Number of inspections, examinations
2018	24 cases
2019	27 cases
2020	22 cases
2021	11 cases
2022	16 cases
2023	15 cases

Source: Author's statistics based on annual reports of the Ministry of Natural Resources and Environment

3.2.5.2. Inspection, examination and handling of violations by relevant ministries and industries

According to Directive 03/CT-TTg dated March 30, 2015 of the Prime Minister on strengthening the effectiveness of policy and law enforcement in this field, ministries such as the Ministry of Public Security, the Ministry of National Defense, the Ministry of Industry and Trade, the Ministry of Labor - Invalids and Social Affairs, the Ministry of Construction, the Ministry of Finance, have carried out hundreds of inspections and examinations each year related to mining, especially activities specifically related to illegal mining, and imposed administrative fines with amounts up to hundreds of billions of dong, and confiscated many means and exhibits of violations.

3.2.5.3. Inspection, examination, supervision and handling of mining activities at local level

Local authorities flexibly apply various measures to improve the effectiveness of inspection, examination and supervision.

3.3. EVALUATION OF THE CURRENT STATE OF STATE MANAGEMENT OF MINING ACTIVITIES IN VIETNAM

3.3.1. Achievements in State management of mining activities in Vietnam

3.3.1.1. Achievements in implementing the State management contents of mining activities in Vietnam

- * *On promulgation and dissemination of legal documents on mining activities*
- * *On development of mining planning*
- * *On organization of implementation of planning and policies on mining activities*
- * *On State management apparatus for mining activities*
- * *On inspection, examination, supervision and handling of violations of mining activities*

3.3.1.2. Achievements in implementing the State management objectives for mining activities in Vietnam

Firstly, the mining has achieved certain results, contributing to the promotion of national resources with high economic value contributions to the state budget

Secondly, the process of organizing and implementing mining is mostly oriented towards protecting national mineral resources

Thirdly, the environmental protection issues are concerned and has become an important condition in granting mining licenses

Fourthly, the mining activities are oriented towards supporting the community in the area where the mines are exploited.

3.3.2. Limitations of State management of mining activities in Vietnam

3.3.2.1. Limitations in implementing State management contents of mining activities

- * *On promulgation and dissemination of legal documents on mining activities*
- * *On development of mining planning*
- * *On organization of implementation of planning and policies on mining activities*
- * *On State management apparatus for mining activities*

* *On inspection, examination, supervision and handling of violations of mining activities*

3.3.2.2. Some objectives of State management of mining activities in Vietnam have not been implemented well

Firstly, the level of exploitation of some types of minerals has not yet achieved high results compared to the explored reserves

Secondly, the situation of illegal exploitation, causing loss of resources and environmental pollution still exists

Thirdly, some enterprises still use outdated mining technology, seriously affecting the environment

Fourthly, there is still a situation of frustration among people with enterprises where there are mines

3.3.3. Causes of limitations

3.3.3.1. Objective causes

The mining industry has very complex characteristics and requires specialized knowledge and high techniques. Vietnam has many types of minerals with wide distribution and different geological conditions, so management and control are difficult.

Infrastructure and equipment for managing mining activities are still limited.

Price fluctuations in the market are also an objective cause leading to limitations in state management of mining activities.

Recent limitations in state management of mining activities are also due to the impact of the global economy.

Mining attracts many businesses and people to participate, but due to limited awareness and capacity, many small-scale, spontaneous, and illegal exploitation activities take place, making management more complicated.

3.3.3.2. Subjective causes

The legal system on mineral activities, including mining activities, is still not consistent. The legal regulations on mining still have many shortcomings, lack specificity and strict sanctions, reducing the effectiveness of management and supervision. The management system also has overlaps. Lack of consistency in mineral planning.

Currently, the protection of unexploited mineral resources and the prevention of illegal exploitation mainly rely on administrative measures, which are not suitable for the management situation and do not thoroughly solve the problem of recurring illegal exploitation. The process of state management of mining activities still lacks a mechanism to support enterprises in terms of capital and technology.

The specialized mineral inspection force is still lacking and weak in expertise and professionalism, leading to irregular inspection and supervision of mining.

The apparatus with the function of state management of minerals is overlapping, many ministries participate but there is no clear division of labor, leading to complicated and lengthy licensing process.

The staff working in mineral management in provinces and cities is still small, most of them are part-time, lacking geological and mining expertise, leading to low management efficiency and creating many shortcomings.

Chapter 4

DIRECTIONS AND SOLUTIONS TO IMPROVE STATE MANAGEMENT OF MINING ACTIVITIES IN VIETNAM

4.1. CONTEXT AND DIRECTIONS TO IMPROVE STATE MANAGEMENT OF MINING ACTIVITIES

4.1.1. Domestic and international context of opportunities and challenges for mining activities

4.1.1.1. International context

4.1.1.2. Domestic context

4.1.2. Directions to improve State management of mining activities

4.2. SOLUTIONS TO IMPROVE STATE MANAGEMENT OF MINING ACTIVITIES IN VIETNAM

4.2.1. Continuing to improve policies and laws related to mining activities; strengthen propaganda and dissemination of laws on mining activities

4.2.2. Improving the work of developing mining planning according to the principle of ensuring feasibility, conformity with socio-economic development planning and environmental protection

4.2.3. Improving the effectiveness of licensing and auctioning of mining rights from the central to local levels

4.2.4. Improving financial mechanisms and policies in mining activities; strengthen management of the implementation of financial obligations related to mining by organizations and individuals

4.2.5. Strengthening state management of environmental protection in mining; supporting communities in mining areas of mining organizations and individuals, aiming to build a green and sustainable economy

4.2.6. Strengthening inspection, examination, supervision and timely handling of violations in mining activities

4.2.7. Perfecting and improving the effectiveness of the state management apparatus for mining activities; focusing on training and fostering the team of officials in charge of the industry.

4.3. RECOMMENDATIONS

CONCLUSION

State management of mining activities in Vietnam has achieved many remarkable results in implementing management functions: promulgating and disseminating legal policies; planning exploitation, delimiting areas prohibited or temporarily prohibited from exploitation; organizing the implementation of planning, implementing policies; inspecting, checking, supervising, and handling violations of exploitation activities; organizing the state management apparatus. Mineral resource management has been effectively implemented, ensuring economical and efficient use; investing in exploitation and processing technology that reaches the advanced level of Asia and the world; building an advanced and modern mining industry associated with environmental protection, applying circular economic models, green economy, adapting to climate change and aiming for carbon neutrality; at the same time, ending backward, fragmented exploitation and processing facilities with low economic efficiency and causing environmental pollution.

However, there are still many difficulties and shortcomings in the state management of mining activities in Vietnam today, such as the legal system still has "gaps" that need to be supplemented, adjusted and perfected; mining planning is still overlapping, progress is slow; limitations in granting mining licenses, calculating fees for granting rights; difficulties in inspection and examination; quality of management staff, etc. That requires that in the coming time, to perfect the state management of mining activities in Vietnam, it is necessary to synchronously implement the following 7 solutions: (1) Continuing to perfect policies and laws related to mining activities. Strengthen propaganda and dissemination of laws on mining activities; (2) Perfecting the work of building mining planning according to the principle of ensuring feasibility, conformity with socio-economic development planning and associated with environmental protection; (3) Improving the effectiveness of licensing and auctioning mining rights from the central to local levels; (4) Improving financial mechanisms and policies in mining activities; strengthen management of the implementation of financial obligations related to mining by organizations and individuals; (5) Strengthening state management of environmental protection in mining; support communities in mining areas of mining organizations and individuals, aiming to build a green and sustainable economy; (6) Strengthening inspection, examination, supervision and timely handling of violations in mining activities; (7) Improving and enhancing the effectiveness of the state management apparatus for mining activities; focusing on training and fostering the team of officials in charge of the industry.

The synchronous implementation of appropriate solutions to improve state management of mining activities in Vietnam will create conditions for our country to effectively exploit valuable resources, meet the demand for mineral-related raw materials, increase state budget revenue, contribute to national socio-economic development while still ensuring the environment and sustainable development in the context of the global green economic transition.

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